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EDITED BY

FRANK M. CHAPMAN

Official Organ of the Audubon Societies

AUDUBON DEPARTMENT EDITED BY

MABEL OSGOOD WRIGHT

AND

WILLIAM DUTCHER

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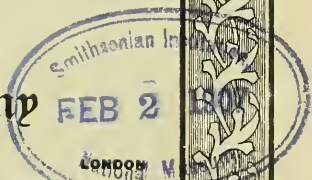


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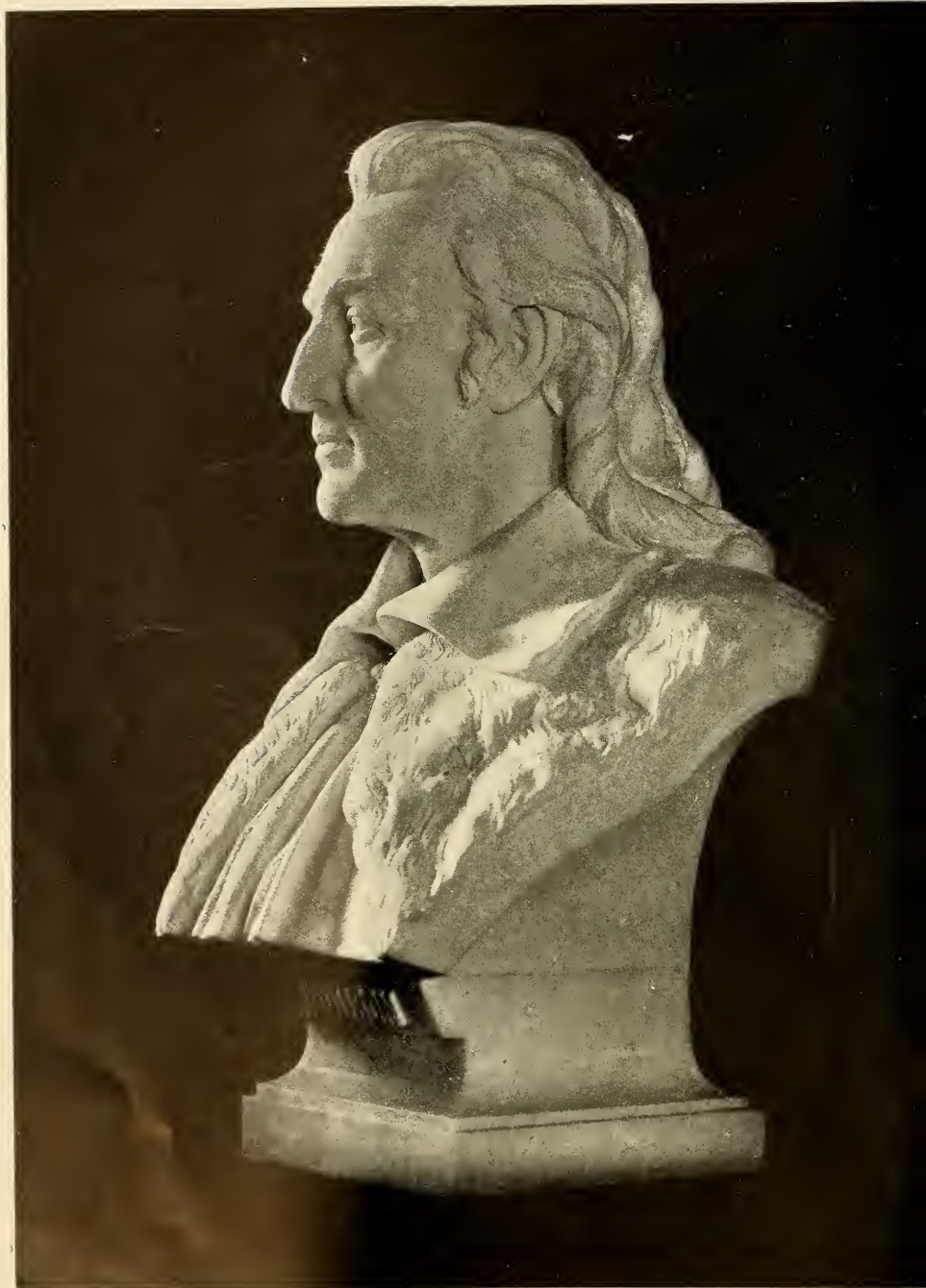
Reduced facsimile of the reproduction of Horsfall's colored drawing of the Evening Grosbeak. Presented to every subscriber to Vol. IX, 1907, of BIRD-LORE. The original, printed on heavy plate paper, suitable for framing, is life-size.

Subscribers whose subscription has expired will find a renewal blank enclosed in the present number of the magazine.

To those whose subscriptions expired with the December, 1906, issue and who have not notified us to discontinue their magazine, the present number is sent in the belief that the matter of renewal has been overlooked.

On receipt of your renewal we will send you the colored Grosbeak picture, which should be considered due notification of the entry of your subscription.

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JOHN JAMES AUDUBON

From the bust by William Couper in the American Museum of Natural History

Bird = Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. IX

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No. 1

John James Audubon

By C. HART MERRIAM¹

OF the naturalists of America no one stands out in more picturesque relief than Audubon, and no name is dearer than his to the hearts of the American people.

Born at an opportune time, Audubon undertook and accomplished one of the most gigantic tasks that has ever fallen to the lot of one man to perform. Although for years diverted from the path Nature intended him to follow, and tortured by half-hearted attempts at a commercial life, against which his restive spirit rebelled, he finally, by the force of his own will, broke loose from this bondage and devoted the remainder of his days to the grand work that has made his memory immortal.

His principal contributions to science are his magnificent series of illustrated volumes on the birds² and quadrupeds³ of North America, his *Synopsis of Birds*⁴, and the *Journals*⁵ of his expeditions to Labrador and to the Missouri and Yellowstone rivers.

The preparation and publication of his elephant folio atlases of life-size colored plates of birds, begun in 1827 and completed in 1838, with the accompanying volumes of text (the 'Ornithological Biography,' 1831-1839), was a colossal task. But no sooner was it accomplished than an equally sumptuous work on the mammals was undertaken, and, with the assistance of Bachman, likewise carried to a successful termination. For more than

¹ An address delivered at the American Museum of Natural History, December 29, 1906, on the unveiling of busts of ten pioneers of American science, presented to the Museum by its president, Morris K. Jesup.

² 'The Birds of America.' 4 atlases, double elephant folio, colored plates. London, 1827-1838; *Ornithological Biography*, an account of the habits of the birds of the United States. 5 vols. Royal 8vo. Edinburgh, 1831-1839.

³ 'The Quadrupeds of North America,' by John James Audubon and Rev. John Bachman. 3 vols. Royal 8vo. text, and elephant folio atlas of colored plates. New York, 1846-1854.

⁴ 'Synopsis of Birds of North America.' Edinburgh and London, 1839.

⁵ 'Audubon and His Journals,' by Maria R. Audubon. 2 vols. 8vo. New York, 1897.

three-quarters of a century the splendid paintings which adorn these works, and which for spirit and vigor are still unsurpassed, have been the admiration of the world.

In addition to his more pretentious works, Audubon wrote a number of minor articles and papers and left a series of Journals, since published by his granddaughter, Miss Maria R. Audubon. The Journals are full to overflowing with observations of value to the naturalist, and, along with the entertaining 'Episodes,' throw a flood of light on contemporary customs and events—and incidentally are by no means to be lost sight of by the historian.

In searching for material for his books, Audubon traveled thousands of miles afoot in various parts of the eastern states, from Maine to Louisiana; he also visited Texas, Florida and Canada, crossed the ocean a number of times, and conducted expeditions to far-away Labrador and the then remote Missouri and Yellowstone rivers. When we remember the limited facilities for travel in his day—the scarcity of railroads, steamboats and other conveniences—we are better prepared to appreciate the zeal, determination and energy necessary to accomplish his self-imposed task.

That it was possible for one man to do so much excellent field work, to write so many meritorious volumes, and to paint such a multitude of remarkable pictures must be attributed in no small part to his rare physical strength—for do not intellectual and physical vigor usually go hand in hand and beget power of achievement? Audubon was noted for these qualities. As a worker he was rapid, absorbed, and ardent; he began at daylight and labored continuously till night, averaging fourteen hours a day, and, it is said, allowed only four hours for sleep.

In American ornithology, in which he holds so illustrious a place, it was not his privilege to be in the strict sense a pioneer, for before him were Vieillot, Wilson and Bonaparte; and contemporaneous with him were Richardson, Nuttall, Maximilian Prince of Wied, and a score of lesser and younger lights—some of whom were destined to shine in the near future.

Audubon was no closet naturalist—the technicalities of the profession he left to others—but as a field naturalist he was at his best and had few equals. He was a born woodsman, a lover of wild nature in the fullest sense, a keen observer, an accurate recorder, and, in addition, possessed the rare gift of instilling into his writings the freshness of nature and the vivacity and enthusiasm of his own personality.

His influence was not confined to devotees of the natural sciences, for in his writings and paintings, and in his personal contact with men of affairs, both in this country and abroad, he exhaled the freshness, the vigor, the spirit of freedom and progress of America—and who shall attempt to measure the value of this influence to our young republic?

Audubon's preëminence is due, not alone to his skill as a painter of birds

and mammals, nor to the magnitude of his contributions to science, but also to the charm and genius of his personality—a personality that profoundly impressed his contemporaries, and which, by means of his biographies and journals, it is still our privilege to enjoy. His was a type now rarely met—combining the grace and culture of the Frenchman with the candor, patience, and earnestness of purpose of the American. There was about him a certain poetic picturesqueness and a rare charm of manner that drew people to him and enlisted them in his work. His friend, Dr. Bachman of Charleston, tells us that it was considered a privilege to give to Audubon what no one else could buy. His personal qualities and characteristics appear in some of his minor papers—notably the essays entitled 'Episodes.' These serve to reveal, perhaps better than his more formal writings, the keenness of his insight, the kindness of his heart, the poetry of his nature, the power of his imagination, and the vigor and versatility of his intellect.



MONUMENT ERECTED TO AUDUBON IN TRINITY CEMETERY,
NEW YORK CITY



PELICAN ISLAND, CHARLOTTE HARBOR, FLORIDA
The birds here all nest in trees

Florida Bird Notes

By T. GILBERT PEARSON

With photographs by the author

WHILE in Florida last year, in the interests of the National Association of Audubon Societies, the writer spent some time studying ornithological conditions of the lower Gulf Coast region lying between Tampa and Key West. The objects of the cruise were, in part, to visit the bird reservations in Tampa Bay; to explore, in quest of bird colonies, a territory heretofore but slightly known; to investigate reported traffic in Egret plumes; and, finally, to select a home in Key West for Mrs. Guy Bradley, wife of the murdered game-warden. The expedition was made, mainly in a two-masted sailing vessel, from which frequent expeditions were made among the Keys and on the neighboring mainland.

Indian Key Reservation, near St. Petersburg, was visited on April 11, 1906. This island is about ninety acres in extent and is covered thickly with mangrove trees, many of which attain a height of thirty feet. At this time comparatively few birds were present. Seven Great White Herons were seen standing on the mangroves, but two nests examined revealed no eggs. Near by, one hundred or more Louisiana and Little Blue Herons were likewise engaged in nest-building, but no eggs were seen. A flock of Cormorants, numbering about sixty, left the trees at our approach and settled on the water, as did also perhaps two dozen Brown Pelicans, but these, too, were apparently not interested in domestic affairs. A Barn Owl,

a Red-bellied Woodpecker and a few Prairie Warblers were the other birds found. In July, 1905, the writer found Pelicans and Cormorants breeding here in immense numbers, and fully five thousand Man-o'-War birds were using the island as a roosting place.

Passage Key, near the mouth of Tampa Bay, showed on April 18, but an earnest of the throng of bird-life which gathers here later in the season. This island is a low bank of sand covered sparingly with grass and cacti. Near the north sides a pond with a thickly grown margin of trees furnished ideal nesting sites for perhaps fifteen hundred Louisiana Herons. The nests contained usually from three to five eggs. A few Ward's Great Blue Herons were also here, with their well-grown young. A flock of Teal and a Greater Scaup Duck were swimming contentedly about the pond. Ground Doves, were abundant and many Laughing Gulls filled the sea wind with their shoutings.

Mrs. Asa Pillsbury, wife of the warden in charge, has a long list of birds she has seen here. One of her records is the Florida Burrowing Owl, in fact, the warden pointed out one of the burrows of this interesting bird.

Eight miles south of Passage Key a little crescent-shaped mangrove island, less than two hundred feet in length, was the home of a colony of Cormorants and Brown Pelicans on April 15. At this time egg-laying had begun, although many nests were not yet completed.



A SCENE ON PELICAN ISLAND, INDIAN RIVER

Photographed by F. M. Chapman. The trees having disappeared, the Pelicans here nest upon the ground. Compare with Mr. Pearson's pictures where all the birds are nesting in trees

Explorations on shore with local guides resulted in the finding of eight breeding colonies of Herons. They were all located in 'pop-ash' trees growing in small fresh-water ponds. Louisiana, Little Blue, Black-crowned, Ward's Great Blue and Green Herons were found, the relative abundance of the species being in the order named. The Louisiana and Little Blue were about equal in numbers and were far more numerous than the others.

One colony of about twelve pairs of Yellow-crowned Night Herons was located. The nests were in the semi-darkness of an exceedingly thick, swampy growth. Two nests were examined; these held four eggs each. The bird not infrequently, however, deposits five or six. The Anhenga, locally called 'Water Turkey,' was frequently associated with the Herons, and the snuff-colored young were often seen standing on the nests or near-by limbs.



TREE NEST OF BROWN PELICAN

In the scrub-palmetto flat woods of Manatee county, Sandhill Cranes were common, and some of their nests were photographed on April 21. The loud, rattling cry of these birds sounded strange in the silence of the lonely pine barrens, but added much of interest and charm to the journeys inland. The Caracara, or 'Mexican Buzzard,' was here, also, at times alert and exceedingly wary, again exhibiting a stupidity and lack of fear for which it is difficult to account.

Bald Eagles were occasionally seen and a number of their nests were found. These were usually in the tops of the largest trees available and were sometimes six feet in thickness. Gray Kingbirds were common, especially near the coast, although outnumbered at least two to one by *Tyrannus carolinensis*.

A few miles north of the Caloosahatchee River, on April 23, two large colonies of Brown Pelicans were discovered. Many nests had not yet been completed, and birds were continually flying about with twigs in their bills. No young were found. One of the islands must have been the home of two thousand, the other of at least four thousand of these great birds. In view of the fact that Mr. Chapman has found this species breeding in the Indian River, on the east coast of Florida as early as December, it is interesting to note that here on the west coast, at a point fully as far south,



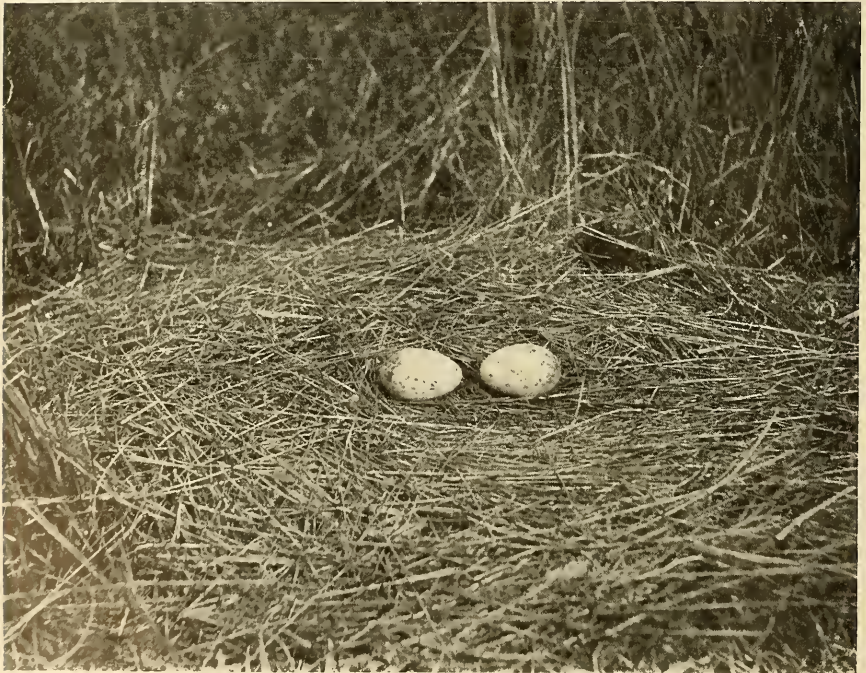
TWO PELICAN POSES

Photographed by A. L. Princehorn, from zoölogical garden specimens

the Pelican's domestic affairs were four months behind the birds of the Atlantic. In the five breeding colonies of Pelicans found on the Gulf Coast, not one of them furnished the sight of young birds in April.

On the coast and its immediate neighborhood, Louisiana Herons were abundant, and, in fact, they were far more numerous than all the other Herons combined. Several large nesting places were discovered. In Gasparilla Sound are two keys which, at the date visited, must have each held 1,000 or 1,200 nests. Three other populous rookeries of these birds were found among the Ten Thousand Islands.

Unfortunately, the bird laws of Florida are but slightly enforced, although several professional hunters stated that the presence of Guy Bradley in the Cape Sable region had prevented them from operating in that territory. The colonies are constantly raided for their eggs. A negro fisherman told me that cake made with Pelican eggs "has shure made fine eating." Cormorants are shot in great numbers for food. Plume-hunting on a large scale is no longer profitable, owing to the scarcity of plume-birds. Egrets and Snowy Herons are now so scarce in the sections visited that not over a dozen individuals were seen during the six weeks of field observations.



NEST AND EGGS OF SANDHILL CRANE

Bluebird Tenants

By MARIAN E. HUBBARD, Wellesley College



THE BLUEBIRDS' WINDOW

Photographed by L. E. Lockwood

THE Bluebirds nested just outside the dining-room window on the third floor of a suburban apartment house. This building is in the town of Wellesley and surrounded by other houses, but on one side it stands close to the eastern slope of a long, low ridge that forms one of the natural boundaries of the college grounds. Oak-woods, sprinkled with pine, crown the hill and extend one-third of the way down over the eastern side. Birds of many feathers frequent this wooded slope. In the springtime Warblers glean about its edges, the Great-crested Flycatcher whistles, buoyant, as he flies from tree to tree, and notes of the Wood Thrush rise through the stillness of late afternoon like bubbles from the bottom of a spring.

The window to which the Bluebirds came is the west one of a southwest bay, and looks straight out and up to the wooded hill. A house stands opposite, a little higher on the slope, surrounded by an apple orchard, some trees of which stray down to the yard immediately beneath.

From this window, for two winters past, birds have been fed with suet and nuts. The success of the winter boarding establishment bred the idea of summer boarders, and at the end of the first winter there was set out upon a shelf a substantial and attractive dwelling made out of an apple-tree bough,—the gift of an ingenious and nature-loving friend. The tenement had no occupants during the first season, but last spring a pair of Bluebirds, desperate over their fortunes in a cat-infested neighborhood, took the lease.

On April 25 there was grass inside the house, with telltale wisps protruding from the entrance. Both birds came openly to the shelf that day, and both worked busily for three days more. Later, four blue eggs were laid, and while the female brooded these, the male, on the tip-top twig of a neighboring tree or on a telephone wire some forty feet away, defended valiantly his domain.

Anticipating the exhausting work of the following weeks, a supply of

tempting meal-worms was laid in. Sometimes the female, slipping away from her task for a brief interval, would help herself to a worm or two, but by far the greater number were devoured by the male, who watched keenly for every issuance of the rations.

On June 13 the young birds hatched, and with that event began the busy season. Tirelessly the mother came and went. She seemed too absorbed to think of eating, and when she did help herself to meal-worms, it was with an eat-to-live air that contrasted strongly with the evident relish of the male. Upon her fell the chief burden of providing food and of keeping both nest and young ones clean. But the male was no idle father. That nest was the apple of his eye, and he guarded it as such. Moreover, he assisted in the feeding to no inconsiderable degree.

Besides meal-worms, the young were fed on the usual Bluebird diet of spiders, crickets, grasshoppers, cutworms and other insects, large and small. The male spent much of his time on the edge of the shelf. The arrival of the female with a load of provender was announced by a short, subdued, yet decisive *chep*, that seemed to ask for a clear track to the nest, a wish that had only to be uttered to be granted by the male. Each visit of the parent birds with food precipitated from the young a shower of notes that sounded like *ché-ee-ee-ee*, *ché-ee-ee-ee*, *chéé-ee-ee-ee*, and which did not cease until after the old ones had gone away.

Frequently a parent would be observed standing on the nest-porch, looking attentively inside,—an attitude, no doubt, of nest-inspection. Notes on this side of household duties are, unfortunately, almost lacking, but in the few cases that were observed the female removed the excretal sacs to a distance, the large white bundle plainly visible in her bill as far as the eye could follow, some three hundred feet.

During these days of preparation of the young for flight, the old birds grew accustomed to their unusual location and came and went freely, paying no attention to ordinary sounds and movements in the room, even permitting a person to sit near the open window. It was during this time that most of the photographs were taken, the camera being set up within three feet of the window-sill.

June 27, fourteen days after the hatching of the eggs, the most precocious of this precocious brood flew. This was toward sundown. No more of the brood came out that night, and the parent birds, absorbed in the care of their first-flown, let the rest go supperless to bed.

The next day was a quiet one. Occasionally the old birds came with food. At 4:25 in the afternoon the second aspirant scrambled up to the nest-hole, where, clinging to the outer rim, it whistled loud and clear the Bluebird call-note — *túr-wee* — which the parent answered from the tree. This was the first utterance of this call, and later observation made it clear that it precedes immediately departure from the nest, and may even

be reckoned upon to herald that event. For half an hour this youngster clung at the entrance, gazing out at the untried world and starting nervously at sounds within the room. To fly or not to fly, that was the question, and, as it sat there wavering, the camera registered its indecision. At last, encouraged by calls from the parent, it flew to the tree below.

In ten minutes another *túr-wee* was heard, as the owner made its way to the air and light. This young one flew in five minutes. Just one minute later came another call as of one fearful of being left behind; but this



MALE BLUEBIRD AT NEST

Photographed from nature by A. P. Morse

nestling, after scrambling up to the light, fell back for the night, slipping away unnoticed early in the morning.

They were all out now, and to the parents, busy with the initiation of their charges into the ways of the perilous world, meal-worms offered no further charms.

On July 12, just two weeks afterward, the old birds reappeared at the window, helped themselves to meal-worms and went in to inspect their house. Soon they began to prepare for the second brood. Some of the old grasses were pulled out, new grass was brought, and this time some horsehair was used for lining.

On August 1, three weeks after the birds began to repair the nest, the second brood hatched.

The story of the second brood is a very different one from that of the

first. From the beginning the birds were much more timid, but this at first could be accounted for by the fact that the room was not used much of the time, and they could not so readily accustom themselves to occasional sounds and movements. As the days went on the male grew very nervous, starting at the slightest stir of people in the room, when six or even twelve feet distant. Appetites flagged and meal-worms were often left untasted. More alarming still, the young were fed with much less frequency. The male seldom left the shelf for any length of time. Had any one supposed that guarding of the nest was an easy job, that illusion would have been quickly dispelled by the sight of this patient father at his post, with bill agape, the picture of discomfort. Dog-days had set in early, and the sun beat upon the window through the middle of the day and in the afternoon until the hill threw over it a friendly shadow. The need of some protection was painfully apparent, and finally, in desperation, an old umbrella was raised outside the window and fastened to a hook inside. The relief as it went up each day was immediate and apparent.

One curious habit of the male after the second brood was hatched was that of sitting on the nest-porch, facing the window, with his body pressed close against the hole. Sometimes he would leave this position for the edge of the shelf after the umbrella had been raised, but on other occasions he would take his station there even in the protecting shadow. Was this merely because the porch was an easier resting place than the shelf-rim, or was it an instinctive attempt to keep out heat? In any event, the action, though it may have been useful in the morning when the sun was pouring in, was of doubtful value at other times, when it resulted in shutting out the air.

Something was wrong in the Bluebird household, as indicated by the increasing nervousness and evident anxiety of the male. Many times he would stand on the porch, peering steadily into the nest, in a fashion different from that of ordinary nest-inspection. His mute devotion was sweet to see, but it was also painful to watch him growing more worn and harassed. The female all this time came and went, brooded even through the hottest nights, and was apparently steadied by her constant service.

The cause of the anxiety became apparent when, on the ninth day, a little dead body, after much effort, was thrown up to the nest-hole and pushed out on the porch. The umbrella, though put up two days after the eggs were hatched, had been raised too late.

The next day, flies about the nest and a bad odor told the tale of another tragedy. The male was very nervous again and, as he sat against the entrance, snapped at the flies that buzzed about his head. Late in the afternoon the female went inside and tried to get the dead bird out. Over and over again the little body could be seen tossed up to the opening, but each attempt to get it out was unsuccessful. Three times this was repeated in the course of an hour and a half, and at last she got it in such a position that it could be

reached with pinning-forceps, with which in her absence it was removed. The old birds looked once at the body as it lay on the shelf, but paid no further attention to it.

One more tragedy remains to be recorded. Early on the sixteenth day, flies buzzed again about the window. The absence of both parents suggested the fearful thought that perhaps all of the rest of the brood had died. Reassured at last that the nest was not deserted, the house was lifted from the shelf and carried to the kitchen table, where its roof was quickly taken off. Within was one dead bird and one living one. When this sole survivor of the brood was lifted out he showed no fear, but cuddled down confidently in the hand and at the whistled call-note opened his mouth for a meal-worm. It was not long, after the nest was put back on the shelf, before the old birds came with food.

Three days later, when he was nineteen days old, fear developed, and on being placed on a couch he hopped away hurriedly to hide behind a radiator. In the afternoon he gave from the nest, for the first time, the call-note, and five minutes later scrambled up to the opening. Hopping to the edge of the shelf, he called again, and then, putting his trust in his untried wings, he flew straight off and up to a tree one hundred feet away. The old birds had been watching and followed now, guarding his course till he alighted. Another flight to the roof of the neighboring house, with some imperfect attempts at stopping, and he was off to the hill, still tended by his watchful parents.

An hour later the male came back to the nest-porch, and seated himself against the entrance. Now and then he looked inquiringly into the nest. The umbrella had been taken down, but after it was raised he came again and took a drink; after that he disappeared and nothing more was seen of the Bluebird tenants.



A BLUEBIRD HOME

Photographed from nature by F. E. Howe, Sterling, Ill.

Bird-Lore's Seventh Christmas Bird Census

EACH year an increasing number of observers take part in BIRD-LORE'S Christmas Census. Established primarily as a means of arousing interest in field work and of encouraging definite methods of recording one's observations, we are now gradually accumulating a mass of exact information, interesting in itself and, in the aggregate, affording a definite basis for comparison with results obtained in other years. It, therefore, has true scientific value.

Millbrook, Ontario.—Time, 10 A. M. to 2 P. M. Clear; foot of snow on ground; wind northwest, light; temp., 6° to 8°. Downy Woodpecker, 3; Blue Jay, 7; Pine Grosbeak, 10; White-breasted Nuthatch, 3; Chickadee, 16. Total, 5 species, 39 individuals.—S. HUNTER.

Orangeville, Ontario—December 21; time, 8.25 A. M. to 12 M.; 1.25 to 3.30 P. M. Damp and foggy atmosphere; about nine inches of snow; wind west, light; temp., 23° to 29°. American Goshawk, 1; Blue Jay, 5; Pine Grosbeak, 4; White-winged Crossbill, 19; Chickadee, 27. Total, 5 species, 56 individuals. Snowflakes were seen on December 16 and Golden-crowned Kinglets on December 18.—CHARLIE MCFAYDEN and E. W. CALVERT.

Toronto, Ontario, High Park and Humber Bay.—December 22; time, 10 A. M. to 12.40 P. M. Light snow, storm at first, bright after; about six inches of snow; wind northwest, light; temp., about 15°. American Herring Gull, 1; Old Squaw, about 50; Downy Woodpecker, 2; Pine Grosbeak, 13; Slate-colored Junco, 12; Brown Creeper, 5; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Chickadee, 17; Golden-crowned Kinglet, 1. Total, 10 species, 103 individuals.—E. WELLINGTON CALVERT.

Reaboro, Ontario.—December 26; time, 10.20 A. M. to 12.20 P. M.; 1.05 to 2.20 P. M. Sky dull; about eight inches of snow; wind west, light; temp., 28° to 32°. Ruffed Grouse, 3; Hairy Woodpecker, 1; Downy Woodpecker, 1; White-winged Crossbill, 1; White-throated Sparrow, 2; White-breasted Nuthatch, 3; Chickadee, 5. Total, 7 species, 16 individuals. Small flocks of Snowflakes have been seen here this winter.—E. WELLINGTON CALVERT.

Canterbury, N. H.—Time, 8.45 to 10.45 A. M. Cloudy; snow; wind west; very rough day. Ruffed Grouse, 1; Downy Woodpecker, 1; Chickadee, 12 to 15. Total, 3 species, 14 to 17 individuals.—SHERMAN E. PHILLIPS.

Cornish, N. H.—Time, 9.30 to 11 A. M.; 3.40 to 5 P. M. Cloudy and dark; ground covered with several inches of snow; constantly snowing; strong breeze, 20°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 7; Red Tree Sparrow, 7; White-breasted Nuthatch, 1; Chickadee, 17; Golden-crowned Kinglet, 2. Total, 8 species, 50 individuals.—ETHEL R. BARTON.

Tilton, N. H.—December 26; time, 9 A. M. to 4 P. M. Cloudy, with snow-squalls; about two feet of snow on ground; wind northwest, light; temp., 25°. American Merganser, 13; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 2; Redpoll, 42; Tree Sparrow, 1; Northern Shrike, 1; White-breasted Nuthatch, 3; Chickadee, 32; Golden-crowned Kinglet, 7. Total, 10 species, 103 individuals.—EDWARD H. PERKINS.

Wilton, N. H.—Time, 8.45 to 11.45 A. M. and 3.45 to 4.45 P. M. Cloudy; ground covered with six to ten inches of snow; strong northwest wind; several squalls; temp., 20° to 25°. Ruffed Grouse, 1; Downy Woodpecker, 2; Northern Flicker, 1; Blue Jay, 11; American Crow, 6; Pine Grosbeak, 9; White-winged Crossbill, 5; Redpoll, 3; Snowflake, 6; White-breasted Nuthatch, 3; Chickadee, 15. Total, 11 species, 62 individuals. Within two weeks I have observed a Shrike and Goshawk, also Pine Siskins

and Red-breasted Nuthatches, and today I found fresh work of the Pileated Woodpecker in a pine tree.—GEORGE G. BLANCHARD.

Burlington, Vt.—Time, 9 to 10.30 A. M., and 1.15 to 2 P. M. Snowing hard; ground covered with snow; wind northwest, strong; temp., 10°. From window.—Downy Woodpecker, 7; Pine Grosbeak, 3; American Goldfinch, 5; White-breasted Nuthatch, 5; Chickadee, 20. This is the first time I have seen the Pine Grosbeak about Burlington.—EMMA E. DREW.

Norwich, Vt.—December 18; time, 7.35 A. M. to 12.20 P. M. Cloudy to clear; snow, 6 inches beneath a sharp crust; wind north, moderate; temp., 14° to 11°. Canadian Ruffed Grouse, 2; Northern Downy Woodpecker, 2; Blue Jay, 1; American Crow, 18; Pine Grosbeak, 20; American Crossbill, 1; White-winged Crossbill, 53; Redpoll, 7; Brown Creeper, 5; White-breasted Nuthatch, 6; Red-breasted Nuthatch, 2; Chickadee, 48; Golden-crowned Kinglet, 8. Total, 13 species, 173 individuals.—MAURICE C. BLAKE.

Groton, Mass.—December 29, 1906; time, 8 to 8.30 A. M. Cloudy; five inches snow; no wind; temp., 38°. Blue Jay, 4; Crow, 12; Redpoll, 115; Snowflake, 1; White-breasted Nuthatch, 2; Chickadee, 13. Total, 6 species, 147 individuals.—ALVIN G. WHITNEY.

Ipswich, Mass., Castle Hill and part of Beach.—December 22; time, 12.15 to 3 P. M. Weather cloudy; wind west, light; ground bare; temp., 42°. Holboell's Grebe, 1; Loon, 1; Black-backed Gull, 11; Herring Gull, 25; Red-breasted Merganser, 107; Downy Woodpecker, 1; Flicker, 2; Horned Lark, 5; American Crow, 130; Canadian Pine Grosbeak, 6; Snowflake, 2; Ipswich Sparrow, 4; Tree Sparrow, 40, a few singing; Junco, 4; Myrtle Warbler, 5; Chickadee, 6; Ring-necked Pheasant, 5. Total, 17 species, 355 individuals.—MISS E. D. BOARDMAN and MRS. LIDIAN E. BRIDGE.

Ipswich, Mass.—Time, 10 A. M. to 12 M. Cloudy; about a foot of snow on the ground; wind northwest, fresh; temp., 30°. Crow, 39; Chickadee, 18; Hawk, 1; Flicker, 1; Pine Grosbeak, 6. Total, 5 species, 65 individuals.—FRANCIS C. WADE and JESSE H. WADE.

Lynn Beach and Nahant, Mass.—December 26; time, 9.30 A. M. to 2.30 P. M. Fair to cloudy; snow 7 inches; wind west, fresh, to northwest, brisk; temp., 25° to 32°. Horned Grebe, 5; Loon, 2; Red-throated Loon, 1; Black Guillemot, 1; Iceland Gull, 1; Great Black-backed Gull, 12; Herring Gull, 600; Red-breasted Merganser, 8; Red-legged Black Duck, 4; American Golden-eye, 160; Bufflehead, 30; Old Squaw, 66; White-winged Scoter, 6; Horned Lark, 34; American Crow, 10; American Crossbill, 1; White-winged Crossbill, 5; Redpoll, 3; Greater Redpoll, 1; Snowflake, 8; Tree Sparrow, 1; Song Sparrow, 5; Chickadee, 21. Total, 23 species, 985 individuals.—HORACE W. WRIGHT, GORDON WELLMAN and MAURICE C. BLAKE.

Evereux and Marblehead Neck, Mass.—December 29; time, 9.10 A. M. to 1.30 P. M. Fair; two inches of snow on ground; wind north, light; temp., 40° to 47°. Holboell's Grebe, 18; Horned Grebe, 8; Great Black-backed Gull, 2; American Herring Gull, 90; Red-breasted Merganser, 2; American Golden-eye, 60; Old Squaw, 13; Great Horned Owl, 1; Northern Flicker, 10; Horned Lark, 1; American Crow, 8; White-winged Crossbill, 23; Redpoll, 2; American Goldfinch, 8; Pine Siskin, 7; Tree Sparrow, 17; Song Sparrow, 6; Northern Shrike, 2; Myrtle Warbler, 8; Chickadee, 23. Total, 20 species, 309 individuals.—MAURICE C. BLAKE and HORACE W. WRIGHT.

Fitchburg, Mass.—December 29, 1906; time, 2 to 5 P. M. Cloudy; five inches of snow on ground; no wind; temp., 40°. Ruffed Grouse, 4; Downy Woodpecker, 1; Blue Jay, 5; Brown Creeper, 2; White-breasted Nuthatch, 1; Chickadee, 25; Golden-crowned Kinglet, 12. Total, 7 species, 50 individuals.—F. N. DILLON, A. G. WHITNEY and G. F. HUBBARD.

Nahant to Lynn, Mass.—December 21; time, 11 A. M. to 2.30 P. M. Weather cloudy; wind northeast, light; ground bare; temp., 28°. Holboell's Grebe, 1; Loon,

1; Great Black-backed Gull, 1; Herring Gull, 500; American Scaup Duck, 2; American Golden-eye, 17; Old Squaw, 41; White-winged Scoter, 10; Horned Lark, 10; American Crow, 39; Pine Siskin, 24; Snowflake, 15; Song Sparrow, 2; Chickadee, 4. Total, 14 species, 667 individuals.—MISS E. D. BOARDMAN, MRS. LIDIAN E. BRIDGE.

Squantum and Moon Island, Mass.—December 28; time, 9.45 A.M. to 3.00 P.M. Cloudy to fair, snow flurries; snow two inches; wind southwest, light; temp., 32° to 36°. Great Black-backed Gull, 40; Herring Gull, 700; Red-breasted Merganser, 4; American Scaup Duck, 200; American Golden-eye, 125; Old Squaw, 8; American Sparrow Hawk, 1; Short-eared Owl, 3; Northern Downy Woodpecker, 1; Northern Flicker, 7; Horned Lark, 2; American Crow, 70; American Crossbill, 1; Redpoll, 4; Pine Siskin, 2; Snowflake, 2; Tree Sparrow, 8; Slate-colored Junco, 2; Song Sparrow, 12; Northern Shrike, 1; Chickadee, 7; Robin, 3. Total, 22 species, 1,202 individuals.—HORACE W. WRIGHT, MAURICE C. BLAKE and FRANCIS G. BLAKE.

Bolton, Mass.—Time, 10.30 A.M. to 1 P.M. Walk of one and one-half miles; snow-storm, ground covered; wind light, west of north; temp., 22°. Blue Jay, 1; Pine Grosbeak, 3; White-breasted Nuthatch, 1; Chickadee, 6. Total, 4 species, 11 individuals.—AGNES M. LEARNED.

Bolton, Mass.—December 26; time, all day; seen from windows. Sunny; five inches of snow; wind light, west of north; temp., 30°. Downy Woodpecker, 1; Blue Jay, 3; American Crow, 5; Pine Grosbeak, 7; American Goldfinch, 2; White-breasted Nuthatch, 1; Chickadee, 7. Total, 7 species, 26 individuals.—H. L., M. F., and A. M. LEARNED.

Belmont, Mass.—Time, 2.45 to 5.30 P.M. Snowing, ground covered with snow; wind northwest, strong; temp., 26° to 18°. Downy Woodpecker, 1; Crow, 6; heard a flock of Canadian Pine Grosbeaks and a flock of White-winged Crossbills; American Goldfinch, 4; Redpoll, 15; Junco, 2; Brown Creeper, 1; Chickadee, 3; Golden-crowned Kinglet, 3. Total, 10 species, over 35 individuals.—ARTHUR W. FLETCHER and SAMUEL D. ROBBINS.

Belmont, Mass.—December 24; time, 7 to 9 A.M. Cloudy; wind not noticeable; ground covered with snow; temp., 20°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Northern Flicker, 1; Canadian Pine Grosbeak, 15; Pine Siskin, 3; Junco, 2; Crow, 3; Chickadee, 5. Total, 8 species, 31 individuals.—ADELE FITZPATRICK and SAMUEL D. ROBBINS.

Belmont, Mass.—December 25; time, 2.15 to 4.45 P.M. Snow flurries, ground covered with snow; wind strong, northwest; temp., 26° to 24°. Northern Flicker, 1; Blue Jay, 3; American Crow, 1; Screech Owl, 1; Canadian Pine Grosbeak, 70; American Goldfinch, 2; Junco, 2; Chickadee, 9; Golden-crowned Kinglet, 9. Total, 9 species, 97 individuals.—ADELE FITZPATRICK and SAMUEL ROBBINS.

Belmont, Mass.—December 26; time, 9.30 A.M. to 12.30 P.M. Clear; ground covered with snow; wind northwest, light; temp., 30°. Blue Jay, 1; Crow, 2; Canadian Pine Grosbeak, 5; White-winged Crossbill, 4; Redpoll, 4; American Goldfinch, 4; Slate-colored Junco, 22; Song Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 1 (heard); Chickadee, 8; Golden-crowned Kinglet, 5. Total, 12 species, 59 individuals.—ARTHUR W. FLETCHER and SAMUEL D. ROBBINS.

Milton Hill, Mass.—December 27; time, 5.30 A.M. to 5 P.M. Fair to overcast; south breeze, cool; snow on ground. Great Black-backed Gull, 7; American Herring Gull, 100; Red-breasted Merganser, 15; Scaup Duck, 3 (large flocks of 1,000+ off shore, probably these birds); American Golden-eye, 500; Old Squaw, 40; Sharp-shinned Hawk, 1; Flicker, 1; Horned Lark, 10; Blue Jay, 2; Crow, 1,000; Goldfinch, 20; Snowflake, 3; Slate-colored Junco, 1; White-breasted Nuthatch, 2; Chickadee, 10; Golden-crowned Kinglet, 3. Total, 17 species, 2,719 individuals (numbers approximate).—BEATRICE COBB and STANLEY COBB.

Needham, Mass.—December 19; time, 9 A.M. to 1 P.M. Clear; ground nearly

bare; wind east to southeast, light; temp., 15°. Downy Woodpecker, 1; Blue Jay, 6; American Crow, 3; Pine Grosbeak, 10; Redpoll, 12; Tree Sparrow, 33; Junco, 11; Chewink, 1, male; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 17; Golden-crowned Kinglet, 4. Total, 12 species, 101 individuals. A flock of 33 Pine Grosbeaks were seen on December 20.—CHARLES E. HEIL.

West Roxbury, Mass.—December 22; time, 10 A. M. to 1.30 P. M. Cloudy; ground bare; no wind; temp., 34°. Flicker, 6; Blue Jay, 6; American Crow, 28; White-winged Crossbill, 18; American Goldfinch, 2; Tree Sparrow, 4; Junco, 6; Red-breasted Nuthatch, 1; Chickadee, 10; Golden-crowned Kinglet, 9. Total, 10 species, 90 individuals.—CHARLES E. HEIL.

Boston, Mass. (Arnold Arboretum to Brookline Village and Howard Bridge).—December 22; time, 9.20 A. M. to 12.20 P. M. No wind; fair; no snow on ground; temp., 26°. Herring Gull, 3; Golden-eye, 1; Great Horned Owl, 1; Downy Woodpecker, 1; Flicker, 8; Blue Jay, 9; Crow, 21; Goldfinch, 14; White-winged Crossbill, 3; Junco, 3; Song Sparrow, 3; Cedar Waxwing, 18; Myrtle Warbler, 3; Brown Creeper, 2; White-breasted Nuthatch, 6; Canadian Nuthatch, 5; Chickadee, 23; Golden-crowned Kinglet, 5. Total, 18 species, 129 individuals.—C. BOSSON.

Boston, Mass. (The Arnold Arboretum, Olmsted and Riverway Parks, the Fens, and Charles River).—December 22; time, 9 A. M. to 3.45 P. M. Fair, wind southwest, light, A. M.; clouded, wind northeast, light, P. M.; ground bare; temp., 37° to 44°. Great Black-backed Gull, 2; Herring Gull, 6; Black Duck, 1; Red-legged Black Duck, 5; Green-winged Teal, 1 duck; American Golden-eye, 45; Bob-white, 33; Ruffed Grouse, 1; American Sparrow Hawk, 1; Great Horned Owl, 1; Downy Woodpecker, 3; Flicker, 37; Blue Jay, 27; American Crow, 35; Pine Grosbeak, 6; Purple Finch, 6; American Crossbill, 9; White-winged Crossbill, 30; Redpoll, 5; American Goldfinch, 22; Pine Siskin, 7; White-throated Sparrow, 4 (one singing); Tree Sparrow, 10; Junco, 28; Song Sparrow, 14; Cedar Waxwing, 20; Myrtle Warbler, 1; Brown Creeper, 4; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 4; Chickadee, 56; Golden-crowned Kinglet, 17; Robin, 1. Total, 33 species, 444 individuals.—HORACE W. WRIGHT, FRANCIS G. and MAURICE C. BLAKE.

Arlington Heights, Belmont and Cambridge (fresh pond marshes and region), Mass.—December 24; time, 9.15 A. M. to 3 P. M. Clouded to fair; five inches of snow on ground; wind northwest, light; temp., 18° to 24°. Red-shouldered Hawk, 1; American Sparrow Hawk, 1; Downy Woodpecker, 2; Flicker, 3; Blue Jay, 1; American Crow, 24; Pine Grosbeak, 79; American Crossbill, 7; White-winged Crossbill, 10; Redpoll, 23; American Goldfinch, 27; Pine Siskin, 5; Tree Sparrow, 32; Junco, 32; Song Sparrow, 3; Brown Creeper, 7; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 2; Chickadee, 33; Golden-crowned Kinglet, 20. Total, 20 species, 315 individuals.—HORACE W. WRIGHT, FRANCIS G. and MAURICE C. BLAKE.

Middlesex Fells, Mass.—December 24; time, 9.30 A. M. to 12.30 P. M. Clear; four inches of snow on ground; wind northwest, light; temp., 15° to 21°. Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Barred Owl, 1; Downy Woodpecker, 1; Blue Jay, 9; Crow, 10; Pine Grosbeak, 57; White-winged Crossbill, 3; Tree Sparrow, 6; Song Sparrow, 1; Carolina Wren, 1 (first seen November 21); Brown Creeper, 1; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Chickadee, 16; Golden-crowned Kinglet, 3. Total, 16 species, 113 individuals.—GORDON BOIT WELLMAN.

Squantum, Mass.—December 24; time, 12.40 to 3 P. M. Clear; five inches of snow on ground; wind northwest, strong; temp., 20°. Great Black-backed Gull, 2; American Herring Gull, 40; American Merganser, 20; American Scaup Duck, about 500; Old Squaw, 5; White-winged Scoter, 14; Horned Lark, 2; Pine Siskin, 1; Tree Sparrow, 1; Chickadee, 3. Total, 11 species, 588 individuals.—RICHARD MARBLE and JAMES L. PETERS.

Franklin Park (Arnold Arboretum and Allandale Woods), Mass.—December 23; time, 9.40 A. M. to 1 40 P. M. Cloudy, with occasional snow flurries; five inches of snow on the ground; wind west, light; temp., 26°. Bob-white, 1; Red-shouldered Hawk, 1; Northern Flicker, 7; Blue Jay, 7; American Crow, 8; Purple Finch, 5; White-winged Crossbill, about 50; Redpoll, 10; American Goldfinch, 15; Pine Siskin, 14; Slate-colored Junco, 2; Song Sparrow, 3; Cedar Waxwing, 4; Myrtle Warbler, 6; Red-breasted Nuthatch, 2; Chickadee, 7. Total, 16 species, 142 individuals.—JAMES L. PETERS.

Boston Park System, Mass.—December 26; time, 9 A. M. to 12.15 P. M. Clear; five inches of snow on ground; wind northwest, light; temp., 27°. American Herring Gull, 30; Red-legged Black Duck, 2; American Golden-eye, 2; Northern Flicker, 11; Blue Jay, 12; American Crow, 14; Purple Finch, 4; White-winged Crossbill, 32; American Goldfinch, 3; Song Sparrow, 3; Northern Shrike, 1; Myrtle Warbler, 3; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 2; Chickadee, 28. Total, 15 species, 148 individuals.—JAMES L. PETERS.

Nahant, Mass.—December 27; time, 11.30 A. M. to 4.30 P. M. Cloudy; five inches of snow on the ground; wind south, light; temp., 38°. Holbøll's Grebe, 1; Great Black-backed Gull, 49; Herring Gull, about 600; Red-legged Black Duck, 1; American Golden-eye, 18; Bufflehead, 1; Old Squaw, 20; White-winged Scoter, 12; Sparrow Hawk, 1; Horned Lark, 11; American Crow, 20; Snow Bunting, 18; Song Sparrow, 2. Total, 13 species, 754 individuals.—JAMES L. PETERS and ANNA K. BARRY.

Arnold Arboretum, Mass.—Time, 2.30 to 4.30 P. M. Snowy, ground covered with snow 6 inches deep; wind west, light; temp., 26°. Bob-white, 15; Flicker, 3; American Crow, 3; Pine Siskin, 50; Butcher Bird, 1; Brown Creeper, 1; Chickadee, 1. Total, 7 species, 74 individuals.—[?] name.

Cambridge, Mass.—Time, 8.30 to 10 A. M. Cloudy, six inches of snow; snowing lightly; wind northwest, light; temp., 12°. Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Flicker, 1; American Crow, 2; Meadowlark, 1; Pine Grosbeak, 3; American Crossbill, 8; Tree Sparrow, 6; Song Sparrow, 1; Brown Creeper, 1; Chickadee, 5; Golden-crowned Kinglet, 2. Total, 13 species, 33 individuals.—JOHN H. BAKER.

West Medford, Mass.—December 23; time, 8.45 to 10.15 A. M. Weather cloudy; wind northeast, light; eight inches of snow on ground; trees and bushes coated with snow; temp., 28°. Flicker, 1; Blue Jay, 2; Pine Grosbeak, 10; White-winged Crossbill, 20; Snowflake, 100; Brown Creeper, 1; Chickadee, 8; Golden-crowned Kinglet, 1. Total, 8 species, 143 individuals. December 26 a Northern Shrike was singing on a tree next our house.—EDMUND and LIDIAN E. BRIDGE.

Watertown, Mass.—December 22; time, 10.15 A. M. to 12 M. (Time of low tide attracting Gulls to exposed flats.) Light fog, at times but thinly veiling the sun; ground bare; no wind; temp., about 40°. Great Black-backed Gull, 2; Herring Gull, 40; American Golden-eye, 37; Belted Kingfisher, 2; Flicker, 1; Blue Jay, 2; American Crow, 3; American Goldfinch, 23; Tree Sparrow, 3; Song Sparrow, 5; Chickadee, 2. Total, 11 species, 120 individuals, beside more English Sparrows than all others together.—ADELAIDE STOCKWELL.

Piety Corner, Waltham, Mass.—Time, 8 to 10 A. M. and from 12 M. to 1 P. M. Seen from the window. Cloudy, followed by snow; ground covered with snow; wind northwest, medium; temp., 15°. Downy Woodpecker, 2; Flicker, 1; Blue Jay, 4; Crow, 1; Junco, 13. Total, 5 species, 21 individuals. On December 24, I saw a Robin from the window.—E. J. WORCESTER.

Waltham, Mass.—Time, 10 A. M. to 2 P. M. Ground covered with ten inches of snow; snowing hard; wind northwest, strong; temp., 26° to 28°. Flicker, 3; Crow, 3; Goldfinch, 15; Tree Sparrow, 4; Junco, 2; Chickadee, 3; Robin, 2. Total, 7 species, 32 individuals.—B. L. RIPLEY.

Taunton, Mass.—Time, 9.45 to 11.15 A. M. Cloudy, snow flurries; ground snow-

covered; wind, northwest, moderate; temp., 22° to 24°. Bob-white, 13; Downy Woodpecker, 1; Flicker, 4; Blue Jay, 16; Crow, 13; Purple Finch, 1; Goldfinch, 21; Pine Siskin, 40; Tree Sparrow, 3; Junco, 75; Myrtle Warbler, 9; Chickadee, 2; Golden-crowned Kinglet, 1; Bluebird, 5. At home I saw the following birds feeding on suet, etc., on pear tree in back yard: Downy Woodpecker, 2; Nuthatch, 1; Chickadee, 4; Golden-crowned Kinglet, 1. Total, 15 species, 212 individuals.—LUCY B. BLISS.

West Taunton, Mass.—December 26; time, 11.45 A. M. to 4.15 P. M. Clear; ground well covered with snow; wind west, rather strong; temp., 28° to 30°. Bob-white, 7; Downy Woodpecker, 1; Blue Jay, 4; Crow, 565; Goldfinch, 22; Pine Siskin, 2; Tree Sparrow, 85; Junco, 86; Song Sparrow, 3; Myrtle Warbler, 1; White-breasted Nuthatch, 2; Chickadee, 5. Total, 12 species, 783 individuals.—EDITH M. HODGMAN.

Beverly, Mass.—Time, 8.30 to 11.30 A. M. Heavy snow-storm through forenoon, with about twelve inches of snow on the ground; wind west-northwest; temp., 20°. Great Black-backed Gull, 5; American Herring Gull, 125; Blue Jay, 2; Crow, 5; Pine Grosbeak, 40; Redpoll, 17; Tree Sparrow, 1; Junco, 6; Chickadee, 6; Golden-crowned Kinglet, 4. Total, 10 species, 211 individuals.—FRANK A. BROWN.

Nantucket, Mass.—Time, 7 A. M. to 8 P. M. Snow flurries, followed by clearing; ground mostly bare; wind northwest, strong; temp., 29°. Horned Grebe, 6; Loon, 15; Black Guillemot, 1; Great Black-backed Gull, 5; Herring Gull, 30; American Merganser, 19; Redhead, 18; American Scaup Duck, 7; Barrow Golden-eye, 2; Bufflehead, 1; Old Squaw, 22; American Eider Duck, 42; American Scoter, 2; White-winged Scoter, 32; American Crow, 30. Total, 15 species, 229 individuals.—ALVIN B. GURLEY.

Spencer, Mass.—December 22; time, 8 A. M. to 12 M., 1.30 to 3 P. M. Cloudy, ground bare; wind northeast, very light; temp., 30° to 36°. Downy Woodpecker, 3; Blue Jay, 1; Pine Grosbeak, 2; Redpoll, 14; Northern Shrike, 1; Chickadee, 13. Total, 6 species, 34 individuals.—H. H. BLANCHARD.

Hamilton, Mass.—Time, 9.30 A. M. to 12.30 P. M., and 2.30 to 3.30 P. M. Cloudy, snow squalls; wind northwest, strong; temp., 22°. Pheasant, 1; Flicker, 2; Downy Woodpecker, 1; Crow, 100; Pine Grosbeak, 20; Pine Siskin, 100; Tree Sparrow, 5; Chickadee, 4. Total, 8 species, 233 individuals.—REGINALD C. ROBBINS.

Oxford, Mass.—December 27; time, 9.15 to 10.15 A. M. Bright, several inches of snow; wind southwest, light; temp., 26°. Downy Woodpecker, 1; Blue Jay, 2; Tree Sparrow, 8; Chickadee, 3. Total, 4 species, 14 individuals.—GEORGIANNA M. WHEELLOCK.

Woonsocket, R. I.—Time, 9.45 to 11.45 A. M. Cloudy, ground snow-covered; wind, northwest, strong; temp., 26°. Downy Woodpecker, 1; Blue Jay, 9; Goldfinch, 16; Tree Sparrow, 10. Total, 4 species, 36 individuals.—CLARENCE M. ARNOLD.

Gloicester, R. I.—Time, 8.30 A. M., to 1.30 P. M. Slightly cloudy, six inches of snow; wind northerly, strong; temp., 20°. Ruffed Grouse tracks; American Goshawk, 1; Screech Owl, 1; Purple Finch, 1; Chickadee, 2. Total, 4 species, 5 individuals. Two Song Sparrows seen daily up to December 24.—J. IRVING HILL.

New London, Conn.—December 26; time 9.45 A. M., to 1.30 P. M. Clear; ground partly covered with light snow; wind west, brisk; temp., 29°. Herring Gull, 11; Downy Woodpecker, 1; Blue Jay 2; Crow, 4; Goldfinch, 10; Junco, 1; Song Sparrow, 3; Chickadee, 5; Robin, 2; Bluebird, 2. Total, 10 species, 41 individuals.—FRANCES M. GRAVES.

New London, Conn.—December 28; time, 10 to 11 A. M., and 2 to 4 P. M. Drizzling rain in A. M., clear in P. M. Ground bare; no wind; temp., 40°. Herring Gull, 100; Great Black-backed Gull, 1; Whistler Duck, 8; Red-shouldered Hawk, 1; Horned Lark, 2; Pine Siskin, 30; Junco, 7; Song Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 13; Bluebird, 14. Total, 14 species, 167 individuals.—FRANCES M. GRAVES.

New Haven, Conn.—December 24. Lighthouse Point to Mamoguin. Time, 8.45 to 11.30 A. M. Clear, occasional snow flurries; one inch of snow on ground; brisk north-

west wind; temp., 10°. Herring Gull, 200; White-winged Scoter, 6; Ducks (kind?), 40; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Hawk (kind?), 2; Crow, 21; English Starling, 16; Meadowlark, 20; Redpoll, 4; Tree Sparrow, 5; Song Sparrow, 1; Chickadee, 4. Total, 11 species, 321 individuals.—A. A. SAUNDERS, A. W. HONYWILL and D. B. PANGBURN.

New Haven, Conn.—An effort was made by five members of the New Haven Bird Club to cover the best sections of bird country in and about New Haven. The results follow: Fierce northwest wind; thin clouds covering sun; one inch of snow; temp., 18° to 22°.

I. Edgewood Park and Mitchell's Hill.—Time, 8.15 A. M. to 12.30 P. M. Red-tailed Hawk, 1; Downy Woodpecker, 3; Flicker, 1; Phoebe, 1; Blue Jay, 11; American Crow, 1; English Starling, 2; Redpoll, 11; Goldfinch, 1; Tree Sparrow, 6; Field Sparrow, 1; Slate-colored Junco, 4; Song Sparrow, 5; Myrtle Warbler, 3; Brown Creeper, 5; White-breasted Nuthatch, 6; Chickadee, 21; Golden-crowned Kinglet, 3; Bluebird, 1. Total, 19 species, 87 individuals. The Phoebe mentioned above has been in the park since November 25. Last year one was in the same locality from December 21 to March 10. On December 26, 4 Pine Siskins and 1 Northern Shrike were in the Park.—CLIFFORD H. PANGBURN.

II. East Haven and Lake Saltonstall.—Time, 8.30 A. M. to 1 P. M. Herring Gull, 26; Black Duck, 87; Red-tailed Hawk, 1; Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Flicker, 1; American Crow, 10; Blue Jay, 5; English Starling, 4; Meadowlark, 6; American Crossbill, 4; Goldfinch, 2; Tree Sparrow, 78; Slate-colored Junco, 16; Song Sparrow, 1; Brown Creeper, 2; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 2; Chickadee, 34; Golden-crowned Kinglet, 17. Total, 21 species, 299 individuals.—A. A. SAUNDERS.

III. West Rock Park and Wintergreen Sap.—Time, 8.20 A. M. to 12.20 P. M. Red-tailed Hawk, 1; Downy Woodpecker, 1; Blue Jay, 2; American Crow, 5; English Starling, 2; Goldfinch, 30; Tree Sparrow, 3; Field Sparrow, 1; Slate-colored Junco, 6; Song Sparrow, 1; Myrtle Warbler, 1; White-breasted Nuthatch, 1; Chickadee, 13. Total, 13 species, 67 individuals.—DWIGHT B. PANGBURN.

IV. New Haven to West Haven.—Time, 9 A. M. to 1.30 P. M. Distance covered, twelve miles. Herring Gull, 20; Red-tailed Hawk, 1; Downy Woodpecker, 1; Flicker, 1; Blue Jay, 6; Crow, 7; English Starling, 6; Slate-colored Junco, 3; Song Sparrow, 1; White-breasted Nuthatch, 1; Chickadee, 3. Total, 11 species, 50 individuals.—A. W. HONYWILL.

V. Prospect Hill to Pine Rock.—Time, 10 A. M. to 1 P. M. Downy Woodpecker, 1; American Crow, 3; Junco, about 20; Song Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch, 3; Chickadee, 3; Golden-crowned Kinglet, 1; Bluebird, 3. Total, 9 species, about 38 individuals.—BERNARD E. LEETE.

Washington, Conn.—Time, 8.30 to 9 A. M. Clear; one inch of snow on ground; wind northwest; temp., 16°. Hairy Woodpecker, 1; Downy Woodpecker, 2; Tree Sparrow, 10; White-breasted Nuthatch, 2; Chickadee, 6. Total, 5 species, 21 individuals. December 28 two Pine Grosbeaks were seen among the trees. Observed the same pair November 24, 1906, and heard the call, which I had not heard since the winter of 1903-04, when these birds came for the first time under my observation.—WILHELMINA C. KNOWLES.

Glastonbury, Conn.—Time, 3.30 to 4.30 P. M. Six inches of snow; snowing a little; no wind; temp., 22°. Crow, 1; Tree Sparrow, 1; House Sparrow, 1; (heard Juncos;) White-breasted Nuthatch, 1; Chickadee, 3. Total, 6 species, 7 individuals. December 26 saw Downy Woodpecker and December 27 Brown Creeper.—EDITH M. CLARK.

Bristol, Conn.—Time, 7.30 A. M. to 12 M. Clear at 7 A. M., gradually clouding until half overcast at noon; 2 inches of snow underlaid with ice; fresh northwest wind, increasing to high but gusty; temp., 14° at start, 23° at noon. Downy Woodpecker, 1;

Blue Jay, 11; Crow, 2; Pine Grosbeak, 9; Redpoll, 40; Goldfinch, 1; Tree Sparrow, 10; Towhee, 1; White-breasted Nuthatch, 5; Chickadee, 11; Ruby-crowned Kinglet, 1. Total, 11 species, 92 individuals.—E. E. SMITH, R. W. FORD and FRANK BRUEN.

South Norwalk, Conn.—Time, 9 A. M. to 1 P. M. and 1.30 to 4.30 P. M. Fair, becoming cloudy; temp., 18° at 9 A. M.; distance covered, eight miles. Grebe, 1; Herring Gull, 54; Merganser, 1; Broadbill, 9; Golden-eye, 2; Goshawk, 1; Downy Woodpecker, 7; Flicker, 5; Shorelark, 1; Blue Jay, 3; Crow, 17; Starling, 55; Meadowlark, 27; Goldfinch, 9; Pine Siskin, 1; Tree Sparrow, 20; Junco, 57; Song Sparrow, 11; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 8; Chickadee, 22; Golden-crowned Kinglet, 2; Bluebird, 11. Total, 24 species, 327 individuals.—WILBUR F. SMITH and REDDINGTON M. DAYTON.

Canandaigua, N. Y.—December 22; time, 7 to 11 A. M. Cloudy, snow flurries, wind northwest, brisk; temp., 20°. Horned Grebe, 1; Herring Gull, 1; Red-breasted (?) Merganser, 1; Black Duck, 30 (approximate); American Golden-eye, 15; Canada Goose, 40 (approximate); Crow, 200 to 250; Tree Sparrow, 45; Song Sparrow, 1. Total, 9 species, about 325 individuals. December 23. American Sparrow Hawk, 1; Hairy Woodpecker, 1. December 25, time, 8.30 A. M. to 12.30 P. M. and 2.30 to 5 P. M. Very stormy; strong northwest wind, with snow; temp., 13°. Downy Woodpecker, 1; Crow, about 200; Snowflake, 47; Tree Sparrow, 18; Song Sparrow, 5; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 13; Ring-necked Pheasant, 7. Total, 9 species, 295 individuals. Total number of species, three days, 17.—FRANK T. ANTES.

Victor and Fishers, N. Y.—December 26; time, 8.15 A. M. to 2.45 P. M. Clear, becoming cloudy; wind west, brisk; temp., 20° to 33°. American Sparrow Hawk, 2; Great Horned Owl, 1; Downy Woodpecker, 2; Crow, 25; Blue Jay, 17; American Goldfinch, 11; Tree Sparrow, 24; Slate-colored Junco, 2; Song Sparrow, 2; Brown Creeper, 3; White-breasted Nuthatch, 4; Chickadee, 28; Golden-crowned Kinglet, 5; Ring-necked Pheasant, 2. Total, 14 species, 128 individuals.—FRANK T. ANTES.

Auburn, N. Y.—Time, 10 A. M. to 4 P. M. Weather cloudy, heavy snowfall throughout day, preceded by very cold weather, with much snow; wind very strong, northwest; temp., 15°. American Herring Gull, 4; American Merganser, 9; Red-breasted Merganser, 2; Bufflehead Duck, 2; American Golden-eye Duck, 9; American Sparrow Hawk, 1; Downy Woodpecker, 2; American Crow, 117; Tree Sparrow, 15; White-breasted Nuthatch, 1; Chickadee, 3. Total, 11 species, 165 individuals.—FREDERICK J. STUPP.

Rochester, N. Y.—December 26; time, 10.30 A. M. to 12 M. Cloudy, ground covered with snow; wind northwest, brisk; temp., 28°. Crow, 3; Pine Grosbeak, 3; White-breasted Nuthatch, 2; Chickadee, 1. Total, 4 species, 9 individuals. Also, December 23; time, 11 A. M. to 12 M. and 2.30 to 3.30 P. M. Cloudy, ground covered with snow, and snowing; wind northwest, light; temp., 10°. Cooper's Hawk, 1; Downy Woodpecker, 1.—NETTIE SELLINGER PIERCE.

Lyons, N. Y.—Time, 9 A. M. to 6 P. M. Distance covered, twenty-five miles; cloudy and snowing hard most of the day; about ten inches of snow on level, but much drifted, due to a very strong northwest wind; temp., 16°. Ruffed Grouse, 1; Downy Woodpecker, 1; American Crow, 12; Snowflake—two flocks—75 and 200, approximately; Slate-colored Junco, (?); Brown Creeper, 1; White-breasted Nuthatch, 1; Black-capped Chickadee, 36. Total, 8 species, about 350 individuals.—S. B. GAVITT and E. EARL ELLIOTT.

Orient Point, Long Island.—December 23; time, 7 A. M. to 4.30 P. M. Cloudy in morning; wind northwest, strong; ground slightly covered with snow; temp., 20° at start, 15° at return. Horned Grebe, 11; Loon, 13; Red-throated Loon, 1; Great Black-backed Gull, 3; Herring Gull, 461; Red-breasted Merganser, 42; Black Duck and Red-legged Black Duck, 20; Redhead, 1; American Scaup Duck, 104; American Golden-eye, 2; Bufflehead, 11; Old Squaw, 488; White-winged Scoter, 62; Surf Scoter, 12; Bob-white,

12; Red-tailed Hawk, 1; American Rough-legged Hawk, 1; Short-eared Owl, 1; Screech Owl, 2; Downy Woodpecker, 6; Flicker, 20; Horned Lark, 235; Blue Jay, 29; American Crow, 589; Fish Crow, 2; Red-winged Blackbird, 1; Meadowlark, 177 (several singing finely); American Crossbill, 21; White-winged Crossbill, 3; American Goldfinch, 32; Pine Siskin, 184; Snowflake, 154; Tree Sparrow, 290 (one singing spring song); Slate-colored Junco, 5; Song Sparrow, 91 (one singing sweetly); Swamp Sparrow, 1; Northern Shrike, 5; Myrtle Warbler, 218; Chickadee, 165; Golden-crowned Kinglet, 25; American Robin, 154. Total, 42 species, 3,659 individuals. A Pine Grosbeak, Redpoll and Purple Grackle were seen on December 18, a Red-breasted Nuthatch and a Hermit Thrush on the 20th.—FRANK, HARRY and ROY LATHAM.

Mt. Sinai, Long Island, N. Y.—Time, all day. Sky overcast; high north- to north-west winds; temp., 24° at 8 A. M.; slight thaw at midday. Horned Grebe, 1; Herring Gull, about 100; Black Duck, 4; White-winged Scoter, 35; Black-crowned Night Heron, 1; Bob-white, 4; Ruffed Grouse, 2; Horned Lark, 16; Crow, 90; Fish Crow, 4 (heard); Meadowlark, 75; English Sparrow, 3; Ipswich Sparrow, 1; White-throated Sparrow, 7; Tree Sparrow, 300 (approximately); Slate-colored Junco, 70; Song Sparrow, 19; Myrtle Warbler, 3; Winter Wren, 1; Chickadee, 2; Robin, 1. Country visited.—Sound Beach, salt swamps, upland fields, deciduous woods, and red cedar woods. Total, 21 species, 737 individuals.—ROBERT C. MURPHY and EDWARD A. MURPHY.

Huntington, Long Island.—Time, 10 A. M. to 12 30 P. M. Clear; ground thinly covered with snow; wind northwest, strong; temp., 24°. Herring Gull, 5; Screech Owl, 1; Downy Woodpecker, 1; Blue Jay, 2; American Crow, 13; Meadowlark, 5; American Goldfinch, 30; Junco, 35; Song Sparrow, 3; Chickadee, 7; Golden-crowned Kinglet, 5; Bluebird, 1. Total, 12 species, 108 individuals.—MISS CHARLOTTE E. LEE.

College Point to Long Beach, Long Island.—December 30; time, 7.20 A. M. to 5.30 P. M. Cloudy, rain in afternoon; ground bare; wind east; light to brisk; temp., 34°. Great Black-backed Gull, 10; Herring Gull, 100; Old Squaw, 50; Red-tailed Hawk, 2; Downy Woodpecker, 3; Blue Jay, 1; Crow, 10; Starling, 30; White-throated Sparrow, 2; Tree Sparrow, 50; Junco, 25; Song Sparrow, 5; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 1. Total, 16 species, 293 individuals.—FRANCIS HARPER.

New York Harbor to and at the Cholera Bank (10 miles South of Long Beach, L. I.). December 22; time, 8.25 A. M. to 3.55 P. M. Weather, cloudy, misty, showers; wind, north-west, light to none; temp., about 35°. Loon, 6; Kittiwake, 3; Glaucous Gull, 2; Black-backed Gull, 20; Herring Gull, very common; Bonaparte Gull, 10; Old Squaw, 1. Total, 7 species, 42 individuals plus Herring Gulls.—R. E. STACKPOLE, WM. H. WIEGMANN, ISAAC BILDERSEE and C. H. ROGERS.

One Hundred and Thirtieth Street Ferry, New York, to Fort Lee, Coytesville, South Englewood, Leonia, etc., N. J.—December 23; time, 10.10 A. M. to 4.55 P. M. Weather, fine; brisk northwest wind; temp., about 21°. Herring Gull, 20; Red-shouldered Hawk, 1; American Rough-legged Hawk, 1; Barred Owl, 1 (dead); Downy Woodpecker, 2; Crow, 1; Red-shouldered Blackbird, 1; Pine Grosbeak, 12; American Crossbill, 1; White-winged Cross-bill, 14; American Goldfinch, 9; White-throated Sparrow, 3; Tree Sparrow, 20; Field Sparrow, 2; Junco, 7; Song Sparrow, 3; Swamp Sparrow, 1; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 10. Total, 20 live species, 113 individuals.—CHARLES H. ROGERS.

Rockaway Beach, New York City.—December 23; time, 10.15 A. M. to 3.35 P. M. Cloudy first hour, fine afterward; ground bare; wind northwest, very strong; temp., 28°. Great Black-backed Gull, 55; Herring Gull, 400; Bonaparte's Gull, 1 (eight severed wings of this species were found scattered upon the ground near a hotel); American Scoter, 1; Pine Siskin, 15; Tree Sparrow, 20; Hermit Thrush, 1. Total, 7 species, about 500 individuals.—GEORGE E. HIX.

Central Park, New York City.—Time, 9.30 A. M. to 1 P. M. Weather partly cloudy; wind west; temp., 19° to 25°. Herring Gull, 35; Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Downy Woodpecker, 2; Starling, 38; Purple Grackle, 1; White-throated Sparrow, 13; Junco, 1; Song Sparrow, 1; Fox Sparrow, 1; Cardinal, 3; White-breasted Nuthatch, 4; Red-bellied Nuthatch, 1; Chickadee, 6. Total, 14 species, 107 individuals.—CHARLES H. ROGERS.

Central Park, New York City.—Time, 9 to 10.30 A. M., and 10.15 to 2.25 P. M. Fine the first time out, overcast the second time; ground bare; wind northwest, brisk; temp., 28°. Herring Gull, 200; Red-tailed Hawk, 1; Downy Woodpecker, 2; Starling, 37; Purple Grackle, 2; White-throated Sparrow, 14; Junco, 1; Song Sparrow, 2; Fox Sparrow, 1; Cardinal, 2; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 1; Chickadee, 6; Robin, 1. Total, 14 species, 272 individuals.—GEORGE E. HIX.

Central Park, New York City.—December 26; time, 8.15 to 9.30 A. M.; 2.10 to 2.50 P. M. Weather fair; ground bare; light winds; temp., 40°. Herring Gull, 500 (estimated); Starling, 40; Chickadee, 5; White-breasted Nuthatch, 3; White-throated Sparrow, 12; Downy Woodpecker, 1; Cardinal, 2; Junco, 3; Purple Grackle, 2. Total, 9 species, 568 individuals.—MORTIMER D. LEONARD.

Central Park, New York City.—December 23; time, 10 A. M. to 12 M., and 2.30 to 4.30 P. M. Clear; ground bare; wind northwest; temp., 20°. Herring Gull, 150; Red-tailed Hawk, 1; Downy Woodpecker, 3; Starling, 20; Purple Grackle, 1; Chaffinch, 1; White-throated Sparrow, 25; Junco, 4; Song Sparrow, 4; Cardinal, 5; Brown Creeper, 3; White-breasted Nuthatch, 4; Red-breasted Nuthatch, 2; Chickadee, 8; Robin, 5. Total, 15 species, about 236 individuals.—R. E. STACKPOLE and CLINTON G. ABBOTT.

Van Cortlandt Park, New York City, and Yonkers, N. Y.—December 24; time, 10.30 A. M. to 12.30 P. M.; 2.30 to 4 P. M. Overcast most of the time; ground bare; wind high, northwest; temp., 12° to 18°. Herring Gull, 1 (over river); Downy Woodpecker, 4; Blue Jay, 8; Crow, 2; Starling, 3; Purple Finch, 2; White-throated Sparrow, 1; Tree Sparrow (three flocks), about 50; Junco, 20; Song Sparrow, 9; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 6. Total, 13 species, 109 individuals.—F. HUBERTA FOOTE and ALICE R. NORTHROP.

Passaic, N. J.—Time, 10.15 A. M. to 12.15 P. M. Partly cloudy; ground bare; wind north, strong; temp., 22°. Downy Woodpecker, 1; Crow, 1; Starling, 18; Goldfinch, 1; Tree Sparrow, 31; Junco, 12; Brown Creeper, 4; White-breasted Nuthatch, 3; Chickadee, 9. Total, 9 species, 80 individuals.—GILBERT H. TRAFTON and EDWARD UEHLING.

Morristown, N. J.—December 22; time, 3 to 4.30 P. M. Light snow flurries; ground partly bare, with some patches of snow; wind northwest, moderate; temp., 36°. Red-shouldered Hawk, 1; Crow, 2; Redpoll, about 30 (one flock); White-throated Sparrow, 6; Tree Sparrow, 10; Junco, 12; White-breasted Nuthatch, 4; Chickadee, 10; Golden-crowned Kinglet, 14. Total, 9 species, 98 individuals.—R. C. CASKEY.

Princeton, N. J.—Time, 8.20 A. M. to 1.30 P. M., and from 3.20 to 5.20 P. M. Clear; ground bare; wind northwest, strong; temp., 15°. Red-shouldered Hawk, 1; Sparrow Hawk, 3; Hairy Woodpecker, 1; Downy Woodpecker, 7; Blue Jay, 1; American Crow, 28; Goldfinch, 36; White-throated Sparrow, 1; Tree Sparrow, 260; Junco, 90; Song Sparrow, 60; Cardinal, 18; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 4; Chickadee, 1; Carolina Chickadee, 3; Golden-crowned Kinglet, 1. Total, 18 species, 521 individuals.—WILLIAM M. NORRIS, JR.

Newfield, N. J.—Time, 10 A. M. to 3.20 P. M. Cloudy in forenoon, clearing up at noon; ground bare; wind northwest, brisk; temp., 23° to 29°. Crow, 2; Meadowlark, 3; Song Sparrow, 2; Tree Sparrow, 30; Junco, 45; White-breasted Nuthatch, 1; Chickadee, 1; Robin, 1. Total, 8 species, 85 individuals.—WM. W. FAIR.

Moorestown, N. J.—Time, 6.10 to 7 A. M., 8 A. M. to 1.10 P. M., and 2.10 to 5.15 P. M. Clear; wind west-northwest, strong; temp., 25°. Herring Gull, 2; Marsh Hawk,

1; Red-tailed Hawk, 1; Sparrow Hawk, 3; Downy Woodpecker, 6; Blue Jay, 2; Crow, 500; Goldfinch, 5; White-throated Sparrow, 9. Tree Sparrow, 24; Junco, 18; Song Sparrow (singing) 21; Cardinal, 7; Carolina Wren, 1; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 2; Tufted Titmouse, 6; Chickadee, 4; Golden-crowned Kinglet, 7; Robin, 1. Total, 22 species, 624 individuals.—**WILLIAM B. EVANS.**

Philadelphia, Pa., Delaware River Meadows, Bridesburg and Frankford.—December 22; time, 9.30 A. M. to 2.30 P. M. Raining at start, afterward clear and overcast, ground bare and unfrozen; wind northwest, light; temp., 40°. Herring Gull, 20; American Merganser, 1; Red-tailed Hawk, 2; Red-shouldered Hawk, 2; Sparrow Hawk, 1; Hairy Woodpecker, 1; Northern Downy Woodpecker, 2; Northern Flicker, 2; American Crow, 175 (estimated); Fish Crow, 3; Meadowlark, 18; American Goldfinch, 13; White-throated Sparrow, 1; Tree Sparrow, 20; Field Sparrow, 1; Slate-colored Junco, 28; Cardinal, 1; Song Sparrow, 15; Swamp Sparrow, 1; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 2 (singing); Black-capped Chickadee, 1; Golden-crowned Kinglet, 1; Robin, 1. Total, 26 species, about 315 individuals.—**RICHARD F. MILLER.**

Philadelphia, Pa.—Between Spring Garden Street bridge and the dam on the Schuylkill. Time, 12.45 to 1 P. M. Ground bare; wind cutting; temp., 32°. American Herring Gull, 1; American Merganser, 5; Red-breasted Merganser, 15; American Golden-eye, 1; American Crow, 2. Total, 5 species, 24 individuals. December 26 same flock contained about forty-five Red-breasted and fifteen American Mergansers, also five Goldeneyes.—**LEWIS S. GANNETT.**

Germantown and Fairmount Park, Pa.—Time, 8.45 A. M. to 1.30 P. M. Cloudy; ground bare; wind east, light; temp., 37°. Herring Gull, 4; American Merganser, 7; Downy Woodpecker, 3; American Crow, 25; American Goldfinch, 4; White-throated Sparrow, 8; Tree Sparrow, 14; Slate-colored Junco, 74; Song Sparrow, 4; Cardinal, 4; Carolina Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 8. Total, 14 species, 160 individuals.—**ARTHUR F. HAGAR.**

Germantown, Pa. (about the Wissahickon, northeast of the town).—December 27; time, 9.45 A. M. to 1 P. M.; 3 to 4 P. M. Clear in morning; rainy in afternoon; wind west at first, veering about to east; temp., 35° to 50°. Sparrow Hawk, 1; Downy Woodpecker, 3; Hairy Woodpecker, 1; American Crow, 155 (flock of 127); Purple Grackle, 1; American Goldfinch, 51 (flock of 50); White-throated Sparrow, 14 (in two flocks); Tree Sparrow, 13; Junco, 45 (flock of 40); Cardinal, 1; Winter Wren, 2; Carolina Wren (heard, not seen); Brown Creeper, 1; Chickadee, 7; Golden-crowned Kinglet, 7. Total, 15 species, 302 individuals.—**LEWIS S. GANNETT.**

Radnor Township, Delaware County, Pa.—December 24; time, 1 to 5 P. M. Clear; ground bare; wind northwest to north, high; temp., 9° to 11°. Red-tailed Hawk, 1; Downy Woodpecker, 2; Crow, 1,000; Purple Finch, 1; White-throated Sparrow, 1; Tree Sparrow, 4; Junco, 1; Song Sparrow, 6; Cardinal, 5; White-breasted Nuthatch, 1; Black-capped Chickadee, 25; Golden-crowned Kinglet, 15. Total, 13 species, 1,061 individuals.—**JOHN S. PATTON and LEONARD S. PEARSON.**

Fairmount Park, Philadelphia, Pa.—December 26; time, 8.30 A. M. to 2.30 P. M. Clear most of the time; ground bare; wind northwest, high; temp., 30° at start, 33° on return. Herring Gull, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 8; Crow, 27; Purple Finch, 20; Goldfinch, 1; Tree Sparrow, 1; Junco, 75; Song Sparrow, 7; Cardinal, 10; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 2; Black-capped Chickadee, 2; Golden-crowned Kinglet, 9. Total, 17 species, 172 individuals.—**LEONARD S. PEARSON.**

Berwyn, Pa.—Time, 10.30 A. M. to 12.45 P. M., and 2.15 to 4.30 P. M. Cloudy; ground bare; wind northwest, strong; temp., 21°. Downy Woodpecker, 1; Blue Jay, 2;

Crow, 90; White-throated Sparrow, 2; Tree Sparrow, 28; Junco, 77; Song Sparrow, 4; Winter Wren, 1; White-breasted Nuthatch, 1. Total, 9 species, 206 individuals.—JOHN B. GILL.

Lititz, Pa. (Northern Lancaster County, Valley of the Hammer Creek.)—December 23; time, 10.45 A. M. to 5.15 P. M. Partly cloudy, with snow flurries; ground partly covered with snow; wind northwest, strong; temp., 19°. Ruffed Grouse, 1; Turkey Vulture, 3; Red-tailed Hawk, 2; Sparrow Hawk, 1; Downy Woodpecker, 7; Hairy Woodpecker, 2; Crow, 425; American Goldfinch, 2; Pine Finch, 7; Cardinal Grosbeak, 11; Tree Sparrow, 70; Song Sparrow, 3; Junco, 3; Brown Creeper, 2; White-bellied Nuthatch, 7; Black-capped Chickadee, 31; Tufted Titmouse, 12; Golden-crowned Kinglet, 4. Total, 18 species, 592 individuals.—HERBERT H. BECK.

Columbia, Pa.—Time, 9 A. M. to 12 M. Cloudy at first, clearing later; ground lightly covered with snow; wind west, medium; temp., 10°. Crow, 200; English Sparrow, 150; Tree Sparrow, 25; Junco, 20; Cardinal, 2; White-breasted Nuthatch, 1; Chickadee, 2. Total, 7 species, 400 individuals.—WM. M. FLANAGAN and WM. ROCHOW.

Kennett Square, Pa.—Time, 10 A. M. to 1.30 P. M. Northeast wind; sky overcast, a chilly, uncomfortable morning; temp., 20° to 25°. Turtle Dove, 7; Turkey Buzzard, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Crow, 6; Meadowlark, 5; Redpoll, 5; Cardinal, 1; Junco, 55; Tree Sparrow, 9; Goldfinch, 2; Song Sparrow, 3; White-breasted Nuthatch, 5; Tufted Titmouse, 2; Chickadee, 1; Golden-crowned Kinglet, 1. Total, 18 species, 108 individuals.—C. J. PENNOCK.

Radnor Township, Delaware County, Pa.—December 29, 1906; time, 9.30 A. M. to 1.15 P. M. Cloudy, ground bare; wind southwest; temp., 41°. Sparrow Hawk, 2; Hairy Woodpecker, 2; Downy Woodpecker, 3; Crow, 25; Meadowlark, 8; Purple Finch, 1; White-throated Sparrow, 2; Tree Sparrow, 25; Junco, 30; Song Sparrow, 8; Cardinal, 2; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 3. Total, 14 species, 113 individuals.—ALFRED C. REDFIELD.

Durham, N. C.—December 24, 1906; time, 1.30 to 4.00 P. M. Weather, fair; wind northwest, strong; ground bare; temp., 33°. Turkey Vulture, 20; Flicker, 1; American Crow, 8; American Goldfinch, 2; Field Sparrow, 25; Junco, 75; Cardinal Grosbeak, 3; Maryland Yellow-throat, 1; Carolina Wren, 2; Winter Wren, 1; Carolina Chickadee, 3; Golden-crowned Kinglet, 3. Total, 13 species, 194 individuals.—ERNEST SEEMAN.

Palma Sola, Fla.—South shore of Tampa Bay, on one small salt-water bayou, and in pitch pine and spruce woods. Clear; wind northwest. Loon, 2; Brown Pelican, 2; Louisiana Heron, 7; Little Blue Heron, 20; Semi-palmated Plover, 12; Ground Dove, 2; Belted Kingfisher, 1; Phoebe, 1; Red-winged Blackbird, 9; White-eyed Towhee, 3; Cardinal, 1; Blue-headed Vireo, 1; Myrtle Warbler, 35; Yellow-throated Warbler, 1; Pine Warbler, 20; Mockingbird, 1; Blue-gray Gnatcatcher, 1. Total, 19 species, 127 individuals.—ELEANOR P. EARLE.

Palma Sola, Fla.—December 26, 1906. Wind north to northwest; temp. 40° to 55°. Florida Cormorant, 1; Brown Pelican, 6; Louisiana Heron, 11; Little Blue Heron, 20; a flock of about 40 shore-birds, too far away to be identified; Ground Dove, 2; Turkey Vulture, 3; Bald Eagle, 1; American Sparrow Hawk, 1; Belted Kingfisher, 1; Southern Downy Woodpecker, 1; Phoebe, 2; White-eyed Towhee, 1; Cardinal, 1; Blue-headed Vireo, 1; Myrtle Warbler, 60; Yellow-throated Warbler, 2; Pine Warbler, 30; Mockingbird, 1; Blue-gray Gnatcatcher, 2. Total, 20 species, 192 individuals.—ELEANOR P. EARLE.

Palma Sola, Fla.—December 28, 1906. American Egret, 6; Louisiana Heron, 6; Little Blue Heron, 20; Ring-neck Plover, 3; Least Sandpiper, 5; Ground Dove, 2; Turkey Vulture, 1; Bald Eagle, 1; Southern Flicker, 2; Phoebe, 2; Cardinal, 2; Towhee, 5; Yellow-throated Warbler, 5; Myrtle Warbler, 3; Loggerhead Shrike, 1; Mockingbird, 2; Blue-gray Gnatcatcher, 10. Total, 17 species.—CARLOS EARLE.

Knoxville, Tenn.—Time, 9 A. M. to 1 P. M. Clear; ground bare; wind north, light; temp., 28°. Hairy Woodpecker, 2; Crow, 9; Cardinal, 3; Wren, 1; Tufted Titmouse, 1; Bluebird, 12; unknown birds, 3. Total, 7 species, 29 individuals.—MAGNOLIA WOODWARD.

Lexington, Ky.—December 23. Time, 10 A. M. to 4.45 P. M. Two inches of snow; cloudy at start, changing to clear; wind brisk, north; distance about nine miles. Pied-billed Grebe, 1; Bufflehead, 10; American Coot, 1; Killdeer, 5; Marsh Hawk, 1; Red-tailed Hawk, 2; American Sparrow Hawk, 2; Short-eared Owl, 1; Hairy Woodpecker, 2; Red-bellied Woodpecker, 1; Flicker, 3; Horned Lark (about) 3,000; American Crow (about) 2,100; Meadow-lark, 33; Field Sparrow, 22; Slate-colored Junco, 36; Song Sparrow, 38; Cardinal, 8; Carolina Wren, 1; Winter Wren, 1; Carolina Chickadee, 3; Golden-crowned Kinglet, 11. Total, 22 species, about 5,282 individuals.—V. K. DODGE.

La Grange, Mo.—December 21; time, 9 A. M. to 12 M. One inch of wet, new fallen snow covering ground and trees; strong northwest wind; heavy clouds, threatening snow; temp., 30°. Green-winged (?) Teal, 5; Great Horned Owl, 1 (heard); Hairy Woodpecker, 2; Downy Woodpecker, 2; Red-bellied Woodpecker, 6; Blue Jay, 2; Crow, 6; Goldfinch, 6; Junco, 12; Cardinal, 13; White-breasted Nuthatch, 4; Tufted Titmouse, 14; Chickadee, 10. Total, 13 species, 83 individuals.

December 26, route, time, temperature, ground and clouds the same as before, but wind light, southeast. Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Red-bellied Woodpecker, 6; Flicker, 6; Blue Jay, 7; Crow, 7; Goldfinch, 150; Junco, 13; Cardinal, 8; Tufted Titmouse, 6; Chickadee, 23. Total, 11 species, 228 individuals.—SUSAN M. JOHNSON.

Waukon, Iowa.—Time, 9 A. M. to 1 P. M. Damp and cloudy A. M.; clearing P. M.; fresh south wind; temp., 30°. Hairy Woodpecker, 1; Blue Jay, 6; Crow, 3; Goldfinch, 3; Sparrow (species undetermined), 1; White-breasted Nuthatch, 1; Chickadee, 1. Total, 7 species, 16 individuals.—ELLISON ORR.

Cedar Rapids, Iowa.—Time, 8 to 10.15 A. M. Two inches of snow but thawing some; cloudy. Hairy Woodpecker, 2; Downy Woodpecker, 4; Red-headed Woodpecker, 1; Blue Jay, 3; Crow, 5; Tree Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 31. Total, 9 species, 52 individuals.—E. LUCAS LEFEBURE.

Urbana, Ill.—Time, 9.45 A. M. to 12.30 P. M. Clear, ground covered with one inch of snow; wind southwest, strong; temp., 35°. Red-tailed Hawk, 1; northern Downy Woodpecker, 4; Red-bellied Woodpecker, 1; Flicker, 3; Blue Jay, 5; Crow, 4; Purple Finch, 5 (1 killed); Tree Sparrow, 38; Junco, 16; Song Sparrow, 1; White-breasted Nuthatch, 3; Black-capped Chickadee, 6. Total, 12 species, 87 individuals.—ALFRED O. GROSS and HOWARD A. RAY.

Atwood, Ill.—Time, 8 to 11.30 A. M. Cloudy; ground covered with one inch of crisp snow; wind northwest, light; temp., 22°. Northern Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Flicker, 2; Blue Jay, 11; Crow, 150; Junco, 22; Tree Sparrow, 64; Song Sparrow, 8; Cardinal, 3; White-breasted Nuthatch, 4; Tufted Titmouse, 1; Black-capped Chickadee, 9. Total, 12 species, 278 individuals.—ALFRED OTTO GROSS.

Roby, Ill.—Time, 1.30 to 3.30 P. M. Clear, but hazy; ground and small lake here frozen and covered with thin layer of snow; wind southwest, light; temp., 32°. Bob-white, 3; Redpoll, 40; Tree Sparrow, 10; Slate-colored Junco, 5; Northern Shrike, 1; Chickadee, 2. Total, 6 species, 61 individuals.—CARL C. LAWSON.

Peoria, Ill.—Time, 10 A. M. to 3 P. M. Wind light, from south; temp., 28° to 31°. Cloudy; one inch of snow. Ring-billed Gull, 4; American Coot, 1; Quail, one flock; Downy Woodpecker, 14; Hairy Woodpecker, 7; Crow, 3; American Goldfinch, 11; Tree Sparrow and Junco, two flocks estimated, 275; Cardinal, 8; Brown Creeper, 6; White-breasted Nuthatch, 5; Chickadee, 27. Total, 13 species, 362 individuals.—W. H. PACKARD and C. S. VAN DEUSEN.

Desplains River Region, Ill.—December 24; time, 7.40 A. M. to 3.30 P. M. Trace of snow, cloudy; very light northwest to southwest wind; temp., 11° to 36°. Herring Gull, 7; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 17; Crow, 12; Tree Sparrow, 21; Junco, 4; Cardinal, 2; Brown Creeper, 1. White-breasted Nuthatch, 1; Chickadee, 5. Total, 11 species, 73 individuals.—FRANK GATES, N. PARTRIDGE and R. H. GEBERDING.

Chicago, Ill., Glenco to Highland Park.—December 26; time, 7.30 A. M. to 12 M. Clear, becoming cloudy; wind southwest to south; temp., 21° to 40°. Loon, 1; Herring Gull, 8; Ring-billed Gull, 7; American Merganser, 4; Red-breasted Merganser, 15; Pintail Duck, 5; Lesser Scaup Duck, 50; Canada Goose, 7; Downy Woodpecker, 1; Blue Jay, 2; Crow, 18; Evening Grosbeak, 2; Junco, 3; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 4; Golden-crowned Kinglet, 1. Total, 17 species, 130 individuals.—FRANK GATES.

Chicago, Ill., Graceland Cemetery to Evanston and Bowmanvil.—Time, 7 A. M. to 1 P. M. Cloudy, becoming clear; traces of snow on ground; light north wind; temp., 21° to 38°. Loon, 4; Herring Gull, 15; Ring-billed Gull, 2; American Merganser, 2; Pintail Duck, 1; Lesser Scaup Duck, 150; American Golden-eye, 7; Canada Goose, 22; Hairy Woodpecker, 1; Downy Woodpecker, 3; Prairie Horned Lark, 18; Blue Jay, 24; Crow, 12; Pine Siskin, 1 seen, others heard; Tree Sparrow, 50; Junco, 12; Cardinal, 1; Cedar Waxwing, 7; Brown Creeper, 3; Red-breasted Nuthatch, 3; White-breasted Nuthatch, 1; Chickadee, 12. Total, 22 species, 351 individuals.—FRANK GATES.

Chicago, Ill., Stickney District.—Time, 10.30 A. M. to 3.30 P. M. Clear; ground bare; a little snow in grass; wind west to southwest, light; temp., 33°. Prairie Hen (flock), 20; Sharp-shinned Hawk, 1; Prairie Horned Lark, 3; American Crow, 3; Tree Sparrow, 30. Total, 5 species, 57 individuals.—J. L. DE VINE.

Chicago, Ill., Jackson Park and Vicinity, District.—Time, 8 A. M. to 1 P. M. Cloudy and a dense fog, especially on lake, but clearing up toward noon; ground and lagoon frozen and covered with light coat of snow; lake full of floating ice; wind light, varying from northwest to southwest; temp., 30° to 32°. American Herring Gull, 15; Ring-billed Gull, 25; American Merganser, 18; Red-breasted Merganser, 8; American Golden-eye, 4; Screech Owl, 1; Downy Woodpecker, 2; Blue Jay, 4; Snowflake, 3; Lapland Longspur, 50; White-breasted Nuthatch, 1; Chickadee, 6. Total, 12 species, 137 individuals.—E. E. ARMSTRONG and CARL C. LAWSON.

Warren, Jo. Daviess Co., Ill.—Cloudy; wind southwest; trace of snow; temp., 38°. Ruffed Grouse, 1; Red-tailed Hawk, 2; Hairy Woodpecker, 2; Flicker, 2; Horned Lark, 2; Blue Jay, 13; Crow, 564; Goldfinch, 2; Junco, 12; White-breasted Nuthatch, 11; Chickadee, 20. Total, 14 species, 650 individuals.—[?] signature.

Moline, Illinois.—December 27; time, 10.30 to 11.30 A. M., on Arsenal Island in Mississippi River, and 2.15 to 3.30 P. M., on Bluffs of Rock River, four miles southwest. —Very cloudy; moist air; ground bare; wind northeast, light; temp., 35°.—Quail (Bobwhite), 6; Hairy Woodpecker, 4; Downy Woodpecker, 12; Red-bellied Woodpecker, 2; Blue Jay, 6; Crow, 3; Tree Sparrow, 4; Cardinal, 5; Junco flocks (estimated), 100; Brown Creeper, 2; White-breasted Nuthatch, 8; Chickadee, 12. Total, 12 species, about 164 individuals. December 16, a Sparrow Hawk, American Goldfinches and Golden-crowned Kinglets were seen, and on December 26 a flock of Blackbirds (Bronze Grackles) were seen on Rock River.—MRS. SLOAN, MRS. PUTNAM, MISS PUTNAM and MRS. AINSWORTH.

Rock Island, Ill.—Time, 10.30 A. M. to 12.30 P. M. Cloudy; light snow on ground; light southeast wind; temp., 32°; Mississippi River channel open. Ring-necked Duck, 2; Quail, 35; Barred Owl, 1; Crow, 1; Blue Jay, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Snowbird, 30; Chickadee, 15; White-bellied Nuthatch, 2. Total, 10 species, 91 individuals.—BURTIS H. WILSON.

The Beach, Lake Co., Ill.—Sunny; light west wind; no snow; temp., 34°. American Herring Gull, 10; Snow Goose (?), 5; Downy Woodpecker, 1; Blue Jay, 5; Crow, 10; White-winged Crossbill, 1; American Goldfinch, 4; many unidentified Ducks on the Lake.—JOHN F. FERRY.

Youngstown, Ohio.—Time, 7 A. M. to 4 P. M. Cloudy; about six inches of snow, a little snow falling during forenoon, wind west; temp., 14° to 28°. Distance walked, seventeen miles. Quail, 4; Ruffed Grouse, 6; Red-tailed Hawk, 1; Broad-winged Hawk, 1; American Sparrow Hawk, 1; Barred Owl, 1; Great Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Red-bellied Woodpecker, 3; Flicker, 5; Blue Jay, 3; American Crow, 1; Tree Sparrow, 50; Song Sparrow, 16; Cardinal, 1; Winter Wren, 2; White-breasted Nuthatch, 8; Red-breasted Nuthatch, 2; Tufted Titmouse, 14; Chickadee, 25. Total, 21 species, 149 individuals.—GEO. L. FORDYCE and REV. S. F. WOOD.

Cadiz, Ohio.—Time, 9.15 A. M. to 2.15 P. M. Snowing, with eight inches of snow on the ground; wind west, moderately strong; temp., 15° to 19°. Ruffed Grouse, 1; Red-tailed Hawk, 3; Sparrow Hawk, 1; Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 15; Yellow-bellied Sapsucker, 1; Red-bellied Woodpecker, 9; Flicker, 10; Junco, 50; Song Sparrow, 8; Cardinal, 11; Carolina Wren, 2 (singing); White-breasted Nuthatch, 12; Tufted Titmouse, 4; Chickadee, 8; Robin, 1; Bluebird, 5 (singing). Total, 18 species, 144 individuals. On December 17, a farmer living near Cadiz shot a Black Vulture under the impression that it was a Hawk. He brought it to me to identify. This is a very unusual record for eastern Ohio.—HARRY B. MCCONNELL.

Richmond, Indiana.—Time, 7.30 A. M. to 1 P. M. Wind northwest; four inches snow temp., 8°. Mourning Dove, 1; Kingfisher, 1; Downy Woodpecker, 5; Red-bellied Woodpecker, 1; Flicker, 5; Blue Jay, 5; Crow, abundant; Bronzed Grackle, 15; Goldfinch, 4; Tree Sparrow, abundant; Junco, abundant; Song Sparrow, abundant; Cardinal, 24; Brown Creeper, 1; White-breasted Nuthatch, 8; Tufted Titmouse, abundant; Chickadee, abundant. Total, 17 species.—L. GANO and LUCY V. B. COFFIN.

Greenville, Floyd Co., Indiana.—Time, 10.30 to 11 A. M., and 2 to 3.30 P. M. Ground partly covered with snow; wind northwest, light, fair; temp., 40°. Buzzard, 1; Red-bellied Woodpecker, 1; Red-headed Woodpecker, 1; Downy Woodpecker, 14; Blue Jay, 7; Crow, 16; Cardinal, 5; Junco, 23; Song Sparrow, 6; Carolina Wren, 4; Crested Titmouse, 13; Carolina Chickadee, 5. Total, 12 species, 96 individuals.—MRS. CHARLES NORMAN.

Port Sanilac, Michigan.—December 28; time, 10.30 A. M. to 12.30 P. M. Cloudy; two to six inches snow; southwest wind, light; temp., 32° to 34°. American Merganser (?), 2; Crow, 6; White-winged Crossbill, 22; Chickadee, 4. Total, 4 species, 34 individuals.—ETHEL B. CHASE, HERBERT T. THOMSON, HARRIET W. THOMSON.

Detroit, Mich.—Time, 10.15 to 11.45 A. M. Cloudy; three inches of snow; wind northwest, light; temp., 20°. Location, Belle Isle in Detroit River. White-breasted Nuthatch, 24; Chickadee, 14; Red-headed Woodpecker, 4; Goldfinch, 5; Crow, 2; Herring Gull, 7; Pied-billed Grebe, 2 (flying southward). Total, 7 species, 59 individuals.—JEFFERSON BUTLER.

Elkhorn, Wis.—December 23; time, 2 to 4 P. M. Clear, sunshine; ground partly covered with snow; wind northwest, light; temp., about 50°. December 26; time, 9 to 11 A. M. Sunshine, snow in places; wind southwest, light; temp., about 40°. Downy Woodpecker, 2; Blue Jay, 16; Crow, 10; Redpoll, 70 (approximately); White-breasted Nuthatch, 6; Red-breasted Nuthatch, 1; Chickadee, 5. Total, 7 species, about 110 individuals. Our lunch-counter is visited daily by one Hairy and two Downy Woodpeckers, several Blue Jays, two White-breasted Nuthatches, one Red-breasted Nuthatch, and three Chickadees.—MABEL F. BECKWITH, CONSTANCE BECKWITH and SARAH FRANCIS.

Milwaukee, Wis.—December 24; time, 9 A. M. to 3 P. M. Clear, shiny; ground bare; wind north, very light; temp., 15° at 8.30 A. M. Herring Gull, 12; Ducks, 214, chiefly Bufflehead, American Golden-eye, and American Scaup; Downy Wood-

pecker, 3; Crow, 3; Tree Sparrow, 7. Total, 5 species, 237 individuals.—I. N. MITCHELL, W. H. CHUVER and E. C. CASE.

Lake Minnetonka, Minn.—(Twenty miles west of Minneapolis.) Brief observations between 12 M. and 2 P. M. Clear, light southeast wind; no snow; temp., 30°. Downy Woodpecker, 1; Blue Jay, 3; Pine Grosbeak, 10; American Goldfinch, 5; Brown Creeper, 2; White-breasted Nuthatch, 4; Chickadee, 5. Total, 7 species, 30 individuals. Nearly all seen at one spot in the woods where I had placed a supply of beef suet on Thanksgiving Day. Grosbeaks very tame; could almost touch them.—E. F. PABODY, JR.

Red Wing, Minn.—Time, 8 A. M. to 1.45 P. M. Slightly cloudy; about two or three inches of snow; wind southeast, moderate; temp., 21° to 27°. Bob-white, 16; Hairy Woodpecker, 1; Blue Jay, 23; American Goldfinch, 60; Tree Sparrow, 4; Junco, 18; Cedar Waxwing, 6; White-breasted Nuthatch, 7; Brown Creeper, 1; Chickadee, 17. Total, 10 species, 153 individuals.—CHARLES PHILLIPS and NELS. BORGES.

Minneapolis, Minn.—Time, 8 A. M. to 12 M. Partly cloudy, ground nearly bare; wind southeast, light; temp., 30°. Quail, 5; Downy Woodpecker, 1; Blue Jay, 2; Goldfinch, 9; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 5. Total, 7 species, 25 individuals.—HENRIETTA JORDAN and EDWIN C. BROWN.

Minneapolis, Minn.—Time, 11 A. M. to 4 P. M. Cloudy; ground nearly bare; wind northwest, strong; temp., about 35°. Bob-white, 5; Downy Woodpecker, 2; Blue Jay, many; Redpoll, 4; American Goldfinch, 8; Snowflake, 3; Brown Creeper, 2; White-breasted Nuthatch, many; Chickadee, 10. Total, 9 species, about 50 individuals.—KENWOOD BIRD CLUB.

Murdock, Minn.—Time, 9 to 10 A. M. Clear; one inch of snow; no wind; temp., about 38°. Prairie Horned Lark, 20; Goldfinch, 2; Tree Sparrow, 7; Chickadee, 6. Total, 4 species, 35 individuals.—ALBERT A. THOMPSON.

Kolls, Lyman County, S. D.—Time, 11.30 A. M. to 4.30 P. M. Cloudy; ground covered with snow; light south wind. Prairie Sharp-tailed Grouse, 14; Black-billed Magpie, 4; Redpoll, about 150; Chickadee, 1. Total, 4 species, about 170 individuals.—ADRIAN LARSON.

Edmonton, Alberta, Canada.—Time, 8 A. M. to 4 P. M. Clear; thirty inches snow; wind south; temp., 20°. American Goshawk, 3; Ferruginous Rough-leg Hawk, 6; Golden Eagle, 1; American Hawk Owl, 7; Hairy Woodpecker, 2; Canada Jay, 10; American Raven, 1; American Crow, 12; Pine Grosbeak, 4; Snowflake, 100; Chickadee, 100. Total, 11 species, 246 individuals.—SIDNEY S. S. STANSELL.

Okanagan Landing, B. C.—December 29; time, 7.30 A. M. to 2.30 P. M. Fine; five inches of snow; calm; temp., 20° at 7 A. M. Western Grebe, 1; Holboell's Grebe, 1; Horned Grebe, 2; Greater Scaup (duck), 120; American Golden-eye, 2; Bufflehead, 5; Herring Gull, 3; Columbian Sharp-tailed Grouse, 5; Ruffed Grouse, 3; Northern Hairy Woodpecker, 1; Cabanis' Woodpecker, 1; Red-shafted Flicker, 4; Magpie, 12; Western Evening Grosbeak, 1; Pine Grosbeak, 25; Rusty Song Sparrow, 2; Western Meadowlark, 1; Slender-billed Nuthatch, 2; Red-bellied Nuthatch, 1; Long-tailed Chickadee, 7; Mountain Chickadee, 2; Great Northern Shrike, 1; Townsend's Solitaire, 1. Total, 23 species, 203 individuals.—ALLAN BROOKS.

Vernon, B. C.—December 26. Cloudy; wind southwest; three inches of snow; temp., 23° at 7 A. M. Northern Golden-winged Flicker, 2; Red-shafted Flicker, 3; Clarke's Nutcracker, 1; Magpie, 8; Pine Grosbeak, 7; Shufeldt's Junco, 7; Rusty Song Sparrow, 5; Mealy Redpoll, 60; Western Meadowlark, 6; Kingfisher, 1. Total 10 species, 100 individuals.—ALLAN BROOKS.

La Cañada, Los Angeles County, Cal.—Time, 10 A. M. to 4 P. M. Cloudy; no perceptible wind; temp., 78° to 80°. Red-breasted Sapsucker, 1; Red-shafted Flicker, 2; Black Phoebe, 6; California Jay, 2; House Finch, 6; Goldfinch, White-crowned Sparrow, Golden-crowned Sparrow, large flocks; Thurber Junco, 6; California Towhee, 26; Audubon Warbler, large flocks; Western Mockingbird, 8; California Thrasher, 2; Vigor's Wren, 5; Western Robin, 45. Total, 15 species, 108 individuals.—MINNIE K. ANDERSON.

The Migration of Thrushes

FIRST PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

WE believe that all field-students of American birds will endorse the statement that few ornithological papers have been published possessing greater enduring interest and value than those on the 'Migration of Warblers' which Professor Cooke has prepared for BIRD-LORE. We have, therefore, special cause for congratulation that, with the kind permission of the Biological Survey, Professor Cooke has consented to treat other groups of birds in the same equally thorough manner.—ED.

WOOD THRUSH

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Northern Florida	3	April 26	Once in winter
Atlanta, Ga. (near)	12	April 9	April 3, 1893
Raleigh, N. C.	15	April 16	April 10, 1893
Variety Mills, Va.	13	April 28	April 17, 1896
Washington, D. C.	14	April 26	April 19, 1891
Beaver, Pa.	5	April 25	April 22, 1889
Germantown, Pa.	6	May 1	April 30, 1890
Englewood, N. J.	11	May 1	April 26, 1900
Roslyn, N. Y.	6	May 1	April 29, 1894
Shelter Island, N. Y.	9	May 7	May 1, 1891
Ballston Spa., N. Y.	10	May 8	May 3, 1896
Hartford, Conn.	6	May 7	May 3, 1892
Providence, R. I.	8	May 8	May 3, 1905
Eastern Massachusetts	20	May 6	May 1, 1899
<i>Mississippi Valley—</i>			
New Orleans, La.	13	March 31	March 25, 1900
Helena, Ark.	10	April 13	April 6, 1896
Eubank, Ky.	9	April 16	April 10, 1893
St. Louis, Mo.	3	April 19	April 19, 1886
Wauseon, Ohio	10	April 29	April 24, 1886
Petersburg, Mich.	12	April 29	April 23, 1891
Plymouth, Mich.	8	May 1	April 25, 1897
Chicago, Ill.	12	May 3	April 28, 1897
Southwestern Ontario	14	May 4	April 30, 1899
Muskoka District, Ont.	6	May 13	May 8, 1899
Ottawa, Ont.	6	May 10	May 6, 1905
Keokuk, Iowa	10	April 30	April 20, 1896
Hillsboro, Iowa (near)	11	April 30	April 23, 1897
Central Iowa, 41° 40' lat.	19	May 2	April 26, 1902
Sabula, Iowa	8	May 1	April 28, 1892
Lanesboro, Minn.	8	May 5	May 1, 1892
Minneapolis, Minn. (near)	11	May 8	May 3, 1904
Northeastern Texas	2	April 18	April 16, 1891
Manhattan, Kans.	6	April 28	April 22, 1885
Onaga, Kans.	10	May 5	April 28, 1891
Southeastern Nebraska	8	April 27	April 25, 1897



1. WOOD THRUSH.

2 AND 3. WILSON'S THRUSH.

The date of May 6 in eastern Massachusetts is based on the notes of twenty-four observers in eleven towns in Massachusetts east of the Connecticut; the date of May 2 at 41° 40' latitude in Iowa is from the records of twenty-two observers in eleven towns.

FALL MIGRATION

PLACE	No. of years' records	Average date of last one seen	Latest date of last one seen
Lincoln, Neb.			September 15, 1900
Onaga, Kans.	7	August 1	August 26, 1894
Lanesboro, Minn.	4	September 14	September 19, 1888
Central Iowa	12	September 18	October 6, 1887
Chicago, Ill.	4	September 15	September 22, 1900
Southwestern Ontario	5	September 11	October, 9, 1905
Wauseon, Ohio	7	September 17	September 27, 1895
Waterloo, Ind.	6	September 15	September 28, 1891
New Orleans, La.	3	October 14	October 18, 1903
Melrose, Mass.			September 16, 1899
Providence, R. I.			September 22, 1904
Croton-on-Hudson, N. Y.	3	October 5	October 6, 1891
Englewood, N. J.	4	October 3	October 7, 1885
Beaver, Pa.	7	October 2	October 8, 1890
Germantown, Pa.	5	October 6	October 11, 1887
French Creek, W. Va.	3	October 7	October 12, 1891
Raleigh, N. C.	4	October 11	October 16, 1885
Southern Florida	2	October 12	October 13, 1885

WILSON'S THRUSH

SPRING MIGRATION

PLACE	No. of years' records	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Key West, Fla.			April 28, 1887
Northern Florida	2	May 9	May 8, 1903
Raleigh, N. C.	9	May 1	April 27, 1893
French Creek, W. Va.	4	May 3	April 28, 1891
Washington, D. C.	8	May 1	April 26, 1891
Englewood, N. J.	10	May 2	April 27, 1900
Ballston Spa, N. Y.	8	May 7	May 3, 1905
Hartford, Conn.	7	May 4	April 29, 1891
Eastern Massachusetts	20	May 7	May 4, 1904
St. Johnsbury, Vt.	6	May 10	May 5, 1886
Durham, N. H.	3	May 15	May 11, 1900
Southern Maine	9	May 17	May 12, 1900
Scotch Lake, New Brunswick	2	May 21	May 20, 1904
Montreal, Can.	6	May 16	May 11, 1889
Quebec City, Can.	4	May 15	May 14, 1898

SPRING MIGRATION, continued

PLACE	No. of years' records	Average date of spring arrival	Earliest date of spring arrival
<i>Mississippi Valley—</i>			
New Orleans, La.	4	April 19	April 14, 1905
Helena, Ark.	5	April 25	April 18, 1904
Wauseon, Ohio	6	May 1	April 28, 1894
Plymouth, Mich. (near)	12	May 2	April 26, 1897
Southwestern Ontario	15	May 5	May 2, 1900
Toronto, Ont.	8	May 6	May 2, 1898
Ottawa, Ont.	15	May 13	May 5, 1902
Grinnell, Iowa	5	May 8	May 5, 1885
Lanesboro, Minn.	9	May 9	May 5, 1890
Aweme, Manitoba	8	May 15	May 11, 1904

The date of spring arrival, May 7, for eastern Massachusetts is obtained by selecting the earliest dates, as contributed during a series of twenty years, 1886-1905, by twenty observers located in thirteen different towns in Massachusetts east of the Connecticut river. No measurable difference can be noted in the time of arrival at Springfield and at Boston or in the intervening districts. Treating the notes from these thirteen towns as if they had been contributed from one locality, the record of the first one seen is so uniform that it will be given in full. All the dates of the first one seen are in May and are for consecutive years, beginning with 1886: May 8, 7, 6, 9, 8, 11, 7, 7, 10, 7, 4, 7, 8, 6, 9, 6, 7, 9, 4, 5, average May 7. If the average date of the first one seen had been calculated for each town separately and then an average made of the resulting averages, the date of May 9 would have been obtained for the final average instead of May 7.

FALL MIGRATION

The average date of the first one seen in the fall in southern Mississippi is September 14, and at Raleigh, N. C., September 5. The first was noted at Lexington, Ky., September 3, 1905; St. Mary's, Ga., September 13, 1905; Tallahassee, Fla., September 11, 1904; northern coast of South America, October 5, 1900; central Brazil, November 4, 1882.

PLACE	No. of years' records	Average date of last one seen	Latest date of last one seen
Aweme, Manitoba	6	August 27	September 4, 1903
Chicago, Ill.	4	September 6	September 27, 1903
Waterloo, Ind. (near)	4	September 12	September 22, 1887
Wauseon, Ohio	7	September 16	September 25, 1895
Lexington, Ky.	2	September 24	September 27, 1903
Bay St. Louis, Miss.			October 11, 1898
New Orleans, La.			October 17, 1903
Englewood, N. J.	3	September 16	September 20, 1885
Germantown, Pa.	2	September 16	September 19, 1890
Tallahassee, Fla.			October 9, 1904

Oölogy as a Science

To the Editor of BIRD-LORE:

It is rather curious that neither Professor Montgomery, who attacks the "egg collector," nor Mr. Sharples, who defends him, should have mentioned von Nathusius, who made a careful study of the microscopical structure of egg-shells and obtained some highly interesting results. He, at least, pursued oölogy as a science. J. A. Ryder studied the relations of the shape of eggs to that of the birds that laid them, and elaborated a theory to account for the various forms of eggs. The pigmentation and character of the pigment have also been the subjects of more or less research, and an English naturalist has made long and careful observations on the eggs of the Murre from which he seems to have learned much.

Of course, the average egg-collector is that and nothing more, but has the *average* collector of bird skins any higher claim to being a "scientist"? How many collectors of anything, in fact, from cigar wrappers to old masters, collect with any really intelligent purpose, any aim more definite than to accumulate a number of objects whose possession gives them pleasure, all the greater because their neighbors do *not* have them?

Collecting skins and eggs of the Great Auk comes dangerously near being just as much of a fad as collecting stamps; in some cases it is possibly more of a fad, for there are stamp-collectors with definite aims and purposes. The eggs of the humble and multitudinous English Sparrow have yielded more important results than the highly prized and expensive eggs of the aristocratic Great Auk. To secure a skin of the Labrador Duck would fill the recipient with boundless joy, and yet, from a strictly scientific standpoint, it is not a whit more valuable than one of the Old Squaw. One yields precisely the same amount of information as does the other, neither more, nor less. The Dodo is not important because it is extinct and rare, but because it is a highly aberrant member of the Pigeon family and a magnificent example of the effects of isolation and environment.

Supposing that the eggs in the cabinets of collectors had developed into embryos, would the world have been the wiser? How many eggs have been wasted by embryologists and thus prevented from developing into chickens and thereby contributing to the sustentation of mankind?

Years ago Alfred Newton came forward to defend the egg-collector before a parliamentary commission, and recently Mr. Brewster rose in his behalf before the A. O. U.; and, while this note is not to be taken too seriously nor to be considered as a defence of indiscriminate egg-collecting, it may perhaps show that in proper hands it may be capable of yielding good results. For it is not the thing, but the manner in which it is used, that counts.—F. A. LUCAS.

The Question of the Amount of Science in Oölogy

To the Editor of BIRD-LORE:

Two replies have been made to my article on this subject in this magazine of the May-June issue, and I would ask a little space for a return of courtesies.

Mr. R. P. Sharples (BIRD-LORE, September-October), in admitting his ignorance of the names and works of the great embryologists named by me, presents an example of the general lack of knowledge among oölogists of biological thought. He is also mistaken in considering embryology to be a branch of oölogy, for the former subject comprehends all the stages of the organism from the egg and the spermatozoön up to the adult, and had been studied for some three centuries before the term oölogy came into use. One might as well say that a gable upon a house supports the house! Then, in answer to his question, I would reply that I know the works of Davie and Bendire, and am aware that the latter is of great importance; that I have had a slight personal acquaintance with Warren, and high esteem for his services in securing protection for the Hawks and Owls; and that for Baird I have always felt a great admiration, and would point out that his fame rests largely upon his studies in comparative anatomy and geographical distribution, particularly of the fishes and amphibians. It is not quite fair to allude to me by innuendo as one who has no field acquaintance with birds, because from my ninth to my eighteenth year I spent most of my time collecting and observing birds near the very town in which Mr. Sharples resides, and my collections of skins are in two of the Philadelphia museums.

The writer of the editorial in 'The Condor,' November number, exhibits a broader point of view. But he is hardly correct in his statement "that the vast bulk of the work of embryologists, morphologists and systematists is mere cataloguing of the structures of animals and plants." Embryology alone has built up the following important conclusions: that the adult is formed by a gradual differentiation, by an interaction of inherent energies and environmental stimuli; that the species is as much marked in the egg as in the adult stage; that all problems of heredity come down to an understanding of the energies of the germ-cells, as also does sex-determination; that it is probable that the mystery of variations will be solved by the analysis of individual development; that the adult cannot be comprehended without an understanding of its growth; and here many other great conclusions might be mentioned were the space at my command not limited.

Systematists and morphologists in coöperation have given us the theory of evolution, the meaning of division of labor and polymorphism, the idea of homologies, etc. These results would have been impossible with a simple cataloguing of facts; they depend on far-reaching generalization. But oölogy, the collecting and study of dead egg-shells, what ample generalization has it given us? None at all, and, therefore, it is not science and cannot be

considered to have reached the scientific stage. To be sure, many of our major theories remain to be tested, but it is scientific work that generalizes, then tests the theories.

It is a pleasure to agree with both my critics that many subjects are associated with oölogy that are of enjoyment and scientific profit. The searching for nests furnishes keen delight and is a most wholesome and refreshing occupation; but, though it be all this and more, can it be called scientific? If oölogists will only recognize that it is not scientific, I will have no disagreement with them. The study of the nesting habits is, in my opinion, one of the most suggestive lines of ornithological inquiry, for habits and instincts are matters much more complex than any structures, and of fundamental value for understanding the course and factors of evolution. Most vigorously this study should be prosecuted. Here my critics have both missed the point, for my whole argument was directed to show that the collecting and preservation of dead egg-shells is the quest that in my opinion has so far proved to be without scientific value. To put it in other words: whatever observations ornithologists make with regard to habits and acts of intelligence, may well serve as a basis for scientific induction; but the collection of dead egg-shells is barren of scientific spirit, and result. Alfred R. Wallace and Lloyd Morgan have opened the inquiry into avian architecture, but I doubt much whether most American oölogists are acquainted with their writings.—THOMAS H. MONTGOMERY, JR.



SAW-WHET OWL

Photographed from nature by A. W. Honywill, New Haven, Conn., March 25, 1906

Bird-Lore's Advisory Council

WITH some slight alterations and additions, we reprint below the names and addresses of the ornithologists forming BIRD-LORE'S 'Advisory Council,' which were first published in BIRD-LORE for February, 1900.

To those of our readers who are not familiar with the objects of the Council, we may state that it was formed for the purpose of placing students in direct communication with an authority on the bird-life of the region in which they live, to whom they might appeal for information and advice in the many difficulties which beset the isolated worker.

The success of the plan during the six years that it has been in operation fully equals our expectations; and from both students and members of the Council we have had very gratifying assurances of the happy results attending our efforts to bring the specialist in touch with those who appreciate the opportunity to avail themselves of his wider experience.

It is requested that all letters of inquiry sent to members of the Council be accompanied by a stamped and addressed envelope for use in replying.

NAMES AND ADDRESSES OF MEMBERS OF THE ADVISORY COUNCIL

UNITED STATES AND TERRITORIES

- ALASKA.—Dr. C. Hart Merriam, Biological Survey, Dept. of Agr., Washington, D. C.
ARIZONA.—Herbert Brown, Yuma, Ariz.
CALIFORNIA.—Charles A. Keeler, Calif. Acad. Sciences, San Francisco, Calif.
COLORADO.—Dr. W. H. Bergtold, 1460 Clayton Ave., Denver, Col.
CONNECTICUT.—J. H. Sage, Portland, Conn.
DELAWARE.—C. J. Pennock, Kennett Square, Pa.
DISTRICT OF COLUMBIA.—Dr. C. W. Richmond, U. S. Nat'l Mus., Washington, D. C.
FLORIDA.—Frank M. Chapman, American Museum Natural History, New York City.
FLORIDA, Western.—R. W. Williams, Jr., Tallahassee, Fla.
GEORGIA.—Dr. Eugene Murphy, Augusta, Ga.
ILLINOIS, Northern.—B. T. Gault, Glen Ellyn, Ill.
ILLINOIS, Southern.—Robert Ridgway, U. S. National Museum, Washington, D. C.
INDIANA.—A. W. Butler, State House, Indianapolis, Ind.
INDIAN TERRITORY.—Prof. W. W. Cooke, Biological Survey, Dept. of Agr., Wash-
IOWA.—C. R. Keyes, Mt. Vernon, Ia. [ington, D. C.]
KANSAS.—Prof. D. E. Lantz, Manhattan, Kan.
LOUISIANA.—Prof. George E. Beyer, Tulane University, New Orleans, La.
MAINE.—O. W. Knight, Bangor, Me.
MASSACHUSETTS.—William Brewster, Cambridge, Mass.
MICHIGAN.—Prof. W. B. Barrows, Agricultural College, Mich.
MINNESOTA.—Dr. T. S. Roberts, 1603 Fourth Avenue South, Minneapolis, Minn.
MISSISSIPPI.—Andrew Allison, Ellisville, Miss.
MISSOURI.—O. Widmann, 5105 Morgan St., St. Louis, Mo.
MONTANA.—Prof. J. M. Elrod, University of Montana, Missoula, Mont.
NEBRASKA.—Prof. E. H. Barbour, University of Nebraska, Lincoln, Neb.

- NEVADA.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
 NEW HAMPSHIRE.—Dr. G. M. Allen, Boston Soc. Nat. Hist., Boston,
 NEW JERSEY, Northern.—Frank M. Chapman, Am. Mus. Nat. History, New York City.
 NEW JERSEY, Southern.—Witmer Stone, Academy Natural Science, Philadelphia, Pa.
 NEW MEXICO.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
 NEW YORK, Eastern.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washing-
 NEW YORK, Northern.—Egbert Bagg, 191 Genesee Street, Utica, N. Y. [ton, D. C.
 NEW YORK, Western.—E. H. Eaton, Canandaigua, N. Y.
 NEW YORK, Long Island.—William Dutcher, 141 Broadway, New York City.
 NORTH DAKOTA.—Prof. O. G. Libby, University, N. D.
 NORTH CAROLINA.—Prof. T. G. Pearson, Greensboro, N. C.
 OHIO.—Prof. Lynds Jones, Oberlin College, Oberlin, Ohio.
 OKLAHOMA.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
 OREGON.—A. W. Anthony, 761½ Savier St., Portland, Ore.
 PENNSYLVANIA, Eastern.—Witmer Stone, Acad. Nat. Science, Philadelphia, Pa.
 PENNSYLVANIA, Western.—W. Clyde Todd, Carnegie Museum, Pittsburg, Pa.
 RHODE ISLAND.—C. Abbott Davis, Museum Natural History, Roger Williams Park,
 SOUTH CAROLINA.—Dr. Eugene Murphy, Augusta, Ga. [Providence, R. I.
 TEXAS.—Prof. Thomas A. Montgomery, Jr., University of Texas, Austin, Tex.
 TEXAS.—H. P. Attwater, Houston, Tex.
 UTAH.—Prof. Marcus E. Jones, Salt Lake City, Utah.
 VERMONT.—Prof. G. H. Perkins, Burlington, Vt.
 VIRGINIA.—Dr. W. C. Rives, 1723 I Street, Washington, D. C.
 WASHINGTON.—Samuel F. Rathbun, Seattle, Wash.
 WEST VIRGINIA.—Dr. W. C. Rives, 1723 I Street, Washington, D. C.
 WISCONSIN.—H. L. Ward, Public Museum, Milwaukee, Wis.

CANADA

- BRITISH COLUMBIA.—Francis Kermode, Provincial Museum, Victoria, B. C.
 MANITOBA.—Ernest Thompson Seton, Cos Cob, Conn.
 NEW BRUNSWICK.—Montague Chamberlain, 45 Milk St., Boston, Mass.
 NOVA SCOTIA.—Harry Piers, Provincial Museum, Halifax, N. S.
 ONTARIO, Eastern.—James H. Fleming, 267 Rusholme Road, Toronto, Ont.
 ONTARIO, Western.—E. W. Saunders, London, Ont.
 QUEBEC.—E. D. Wintle, 189 St. James Street, Montreal, Can.

MEXICO

- E. W. Nelson, Biological Survey, Department of Agriculture, Washington, D. C.

WEST INDIES

- C. B. Cory, Field Museum, Chicago, Ill.

GREAT BRITAIN

- Clinton G. Abbott, 153 West 73d St., New York City, N. Y.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

VARIOUS causes beyond our control have necessitated a change in the order of publication of the plates of Thrushes as announced in the last issue of BIRD-LORE. The Wood Thrush and Wilson's Thrush appear in this number, the Robin will be given in April, and in June the Hermit, Olive-backed and Gray-checked Thrushes will be published. Dr. Dwight will supply maps to accompany the last-named birds, showing the nesting ranges of their numerous races.

IT will doubtless interest BIRD-LORE'S readers to know that the bust of Audubon recently unveiled at the American Museum of Natural History, and which is figured in this issue, was based solely on the print of the Cruikshank portrait published by BIRD-LORE some years ago.

WE publish in this number of BIRD-LORE two additional communications in regard to the subject of egg-collecting, and the editor of 'The Condor' contributes a page to the same controversy in the November-December, 1906, issue of that journal.

None of the disputants, however, mention what, as we have frequently stated, seems, to our mind, to be the most deplorable result of egg-collecting, namely: that in robbing a bird of its eggs we are robbing ourselves of an opportunity to study it during the most interesting part of its life.

The editor of 'The Condor' extols what he terms the "recreation phase" of egg-collecting, and in California, the home of 'The Condor,' one may find some admirable

examples of 'oölogists' to whom egg-collecting is primarily a recreation, and very readable indeed are their often thrilling stories of how 'rare takes' were made. But if one is in search of information in regard to the nesting habits of California birds, he will pass by these tales of adventure, attractive though they be, for the records of definitely directed field work by an ornithologist who went to California for the express purpose of studying the home-life of California birds, and wisely, therefore, left their eggs where they were found.

The controversy, after all, is more or less academic. A comparison of present conditions with those which existed twenty-five years ago shows how much a thing of the past egg-collecting has become. Nor is the change surprising. As long as there was anything to learn or to record from a gathering of birds' eggs, their collecting was encouraged. But, when collecting brought only duplication and the gratification of the desire for acquisition, it was discouraged and the collector discountenanced. Meanwhile more stringent bird-protective laws have rendered increasingly difficult that trading and trafficking in birds' eggs which has ever been the mainstay of egg-collecting; and every one should rejoice that, in North America at least, we have passed the day when a mere hoarder of egg-shells might pose as one of its exponents.

THE 'Warbler Book' is so directly the offspring of BIRD-LORE, we are sure BIRD-LORE'S readers will be interested to learn that, if all goes well, it will leave the printer's hands sometime in February. The book has required just one year more time to prepare than we had anticipated, but we hope is one year better!

Frankly, if we had known of the amount of work involved in preparing a book of this kind, we should have turned a deaf ear to those who induced us to undertake it. It is one thing to place on record what you yourself know about a given subject, but quite another to record also what everyone else has written concerning it; and we have tried to make the Warbler Book reflect existing knowledge of North American Mniotiltidæ.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

FEBRUARY

When autumn is over, with all the excitement and confusion of the great bird flight southward, we pause, draw a long breath and turn toward the score of patient winter residents with positive relief. Now, at last, we have time to meet them face to face and enjoy their individuality.

In December, if it be mild, we are often surprised by the lingering of some belated migrant. This year an Orchard Oriole, a bird that should leave us in September, hovered about the old apple trees near the house feeding upon some frosted fruit that still clung to their branches, the flesh of discarded pumpkins, or else upon the berries of the porch honeysuckle vines, in the shelter of which he roosted nightly until the 16th of the month, a particularly sunny day, during which he left the neighborhood.

During January, any one who is much abroad will have grown accustomed to the residents of his neighborhood,—the Woodpeckers, Downy and Hairy, and the substantial Flicker, who has hewn him a home for all seasons under the ventilator of the hay-barn or, maybe, in the cupola of your house itself; the Nuthatches, Finches, Gold and Purple, the Meadowlark of the fields, the Crow and his cousin the Blue Jay, the Chickadee and the Myrtle Warbler.

The various Owls and Hawks will have passed in review, claiming attention either by power of voice or wing. The Brown Creeper and Winter Wren will have become so familiar that we forget that they are merely visitors together with the Tree Sparrow, Junco, Shrike and Golden-crowned Kinglet.

Comes February, the suspension bridge between winter and spring. We may be unconscious that we have left the mainland of winter and are facing the opposite shore of promise, yet so it is.

The landscape round about is more dreary than at any previous time since leaf-fall. The snow has pulled away from the soft drapery it first formed and lies crusted and hard under foot; its glare hurts the eyes. This is the 'Coon Moon' of the Indian calendar, when, emerging from his hole, this wary beast feels that he can find sure footing for his peregrinations, but, to my thinking, in this latitude, at least, February should wear the title the Redman gave to March—'The Moon of Snow Blindness.'

The days have already lengthened an hour, at least, and what do they

bring? With the first half of the month, come the tardy winter visitors that have exhausted their more northerly feeding-grounds; the last half, after the upward curve of the span has been reached, and one steps quicker, a straggling advance guard of spring appears—the armorer, with his creaking and filing of metal; the bugler, the minstrel and his more silent brother the poet—the Grackle, the Redwing, the Robin and the Bluebird.

Last week I heard a nature-loving friend say: “February is the poorest month of the season out-of-doors; every year when it comes I wish that I might curl up and sleep like a woodchuck or bear. It is merely a twin of January and the rougher and more monotonous of the pair.”

This may or may not be, according to the chance of the particular season. For myself, February has always been a month of surprises. In February I can quite surely count upon seeing the lovely brown and white Snowflake in company with dainty Redpolls in the field of wild grasses yonder. The Crossbills and Pine Grosbeaks will visit the spruce knoll that has had never a glimpse of them all winter. After a northeasterly snow flurry I scan the marsh meadows hopefully for the great Snowy Owl, and I find the Horned Lark and Lapland Longspur, or his telltale tracks, about the hayricks and waste fields behind the shore huts. But best of all, after that central curve has been rounded, is the first bit of spring color that tinges breast and pinions as wings flutter through the bare trees and alders—ruddy breast of Robin, azure spread of Bluebird and russet cloak of Song Sparrow. “Yes,” but perhaps you say, “I have seen these birds in every winter month.”

Surely, so there have been days and sunrises and sunsets in every month of winter, but not the same as that day and the sunset thereof when, hearing a scrap of rapid, insistant, half-nervous song, we rush out bareheaded and find a Robin sitting alone, trying his throat. Not the winter wanderer, ill plumed, scantily fed and anxious, darting hither and thither like a great wind-blown leaf; but the Robin who, in the far South, has felt the glow of spring, and its impulse has bid him venture forth and proclaim it ahead of his fellows. And faintly, afar on the air, comes a purling call; nearer and nearer it grows until sound takes shape bearing the sky colors of a calmer, milder clime than the one to which it has returned with the anxious expectancy of one glad to be at home again. Ah! we should love and speak well of February, since before it ends its brief days it often gives to us the joyful braggart Redwing; the Robin, that sings to the ear; the Song Sparrow, that speaks to the silent places of the soul, and the Bluebird, that quickens the beating of the heart.

M. O. W.

THE AUDUBON SCHOOL LEAGUE SPECIAL ANNOUNCEMENT

One of the principal objects of the National Association of the Audubon Societies is to encourage the teaching and study of birds in the schools. To

this end, it desires to assist teachers by supplying them with material suitable for their uses and by stimulating the interests of their pupils.

Consequently it is proposed to form an Audubon School League, membership in which, shall be open to all boys and girls of sixteen years and under who successfully take part in the competitions arranged by the Society.

These competitions will be in the form of essays, the subjects for which will be announced in each issue of BIRD-LORE. The first essay will be in the form of a life-history of the Bluebird. This biography should tell of the Bluebird's range, or geographic distribution, of its migrations, of its nesting habits, its notes, its food, and should include particularly the results of personal observations. No fact connected with the bird's habits should be considered too insignificant to receive attention, and each biographer should write as though nothing had ever been published about the Bluebird before.

Each biography should be divided under the main headings given above, with such additions or sub-headings as prove to be required, and should be accompanied by a colored outline of the Bluebird and a map showing its geographical distribution. Outlines for coloring and blank maps, similar to those on a succeeding page, may be secured, without cost, of the National Association of Audubon Societies at 141 Broadway, New York City. There is no limit to the number of words in each biography. Biographies should be sent to the National Association of Audubon Societies at the address above given, so as to be received not later than March 1. Biographies received after that date will not be considered as eligible for the competition. Competitors living in the West may write on either the Western or Chestnut-backed Bluebird.

PRIZES

For the best biography of the Bluebird, on the lines above mentioned, will be given the first prize, the gold badge of the Audubon School League.

For the second best biography will be given the second prize, the silver badge of the Audubon School League. Writers of biographies which are accorded honorable mention will receive the bronze badge of the Audubon School League. All to whom badges are granted become, by virtue of such grant, members of the Audubon School League.

All manuscripts, maps and outlines should be endorsed by the competitor's teacher or guardian as the work of the competitor.

SUBJECT OF THE SECOND BIOGRAPHY

The subject of the biography for the Second Audubon School League competition will be the Red-winged Blackbird. The announcement is made now in order that those who propose to prepare biographies may have an opportunity to study this bird in life, for it should be stated that, in awarding prizes, preference will always be given to the biography containing the largest amount of original observation.



OUTLINE OF BLUEBIRD PLATES

Teachers may obtain copies of this plate for coloring, on application to the School Department of the National Association of Audubon Societies, 141 Broadway, New York City.

BIRD-LORE AS A TEXT-BOOK

It is suggested that teachers will find material in each issue of BIRD-LORE which will have a seasonable value in the study of birds. In the present number, for example, Dr. Merriam's tribute to Audubon might well be made the subject of a lesson on the life of this naturalist. Miss Hubbard's Study of Bluebirds contains much original observation and may well be used to supplement the more general information contained in Mrs. Wright's Leaflet.

The Bird Census furnishes a wealth of material for a study of the distribution of winter birds. The Chickadee, Junco, Crow, Downy Woodpecker, or some other abundant widely distributed winter bird may be taken as a subject for study and the student asked to outline its winter range, as shown by the census, on the map. In this connection the maps supplied by the School Department of the National Association of Audubon Societies may be used and the birds' distribution plotted upon them.

Professor Cooke's Migration Tables will also supply information in regard to the distribution of birds, while as an aid to the study of bird migration they are obviously of great value. A bird's journey northward may be followed by the records from the localities given, its average rate of speed reckoned, and the times of its arrival at each locality be used as some index of the northward advance of spring itself.

In Mrs. Wright's Editorial Essays on the month, which will be continued through the year, the teacher will not only find matter of exact seasonal interest, but we are sure an incentive to the study of nature as well.

F. M. C.

NOTES FROM YOUNG OBSERVERS

Boys and girls of 14 years and under are invited to send to the Editor of the School Department, of the National Association of Audubon Societies, at 141 Broadway, New York City, notes of interest in regard to their study of birds. Contributors should state their age.

A Bird Walk in December

Filling my pocket with nuts, I started at 8 o'clock for a tramp about the woods and fields in search of birds. It rained nearly all the time I was out.

I started toward the east, but, hearing a Woodpecker, returned to where I heard the call and found that it was a Hairy one. Turning to my left I entered a wood, but, not seeing many birds, thought it best for me to come out into the opening.

As I approached the clearing once more, I observed two Chickadees examining the bark of an apple tree.

When I stopped one of the Chickadees flew toward me as if he intended to alight on me; but, to my disappointment, he alighted on a bush just back of me. Not to be discouraged, I followed the two Chickadees, and therefore returned to the woods where I had been. Coming to a thicket of pines I stopped, anticipating a better acquaintance with the Chickadee, but again to my disappointment it flew away. Ascending a little higher, where I was not so much surrounded with trees, I saw several Chickadees. The two nearest me were evidently procuring food. Going as near as I thought possible without frightening the birds, I stopped and put two butternuts on my hat, and, holding one in my hand, awaited for the approach of the Chickadees. Up flew a Chickadee to a dead sumac tree, then on the tree which I was near, and at last on my hat, pecking the nut until he got sufficient food, then flew to a neighboring tree. But ah, thought he, it is so good I will come back and have another taste. This time he came on to my hand, eating part of the nut, flew to a branch and wiped his bill, and then returned to my hand again to say good-bye. I arrived home a little past eleven o'clock.—ETHEL R. BARTON, Cornish, N. H.

Confiding Vireos

One Sunday afternoon in July, as I was getting out of my carriage, I discovered a bird underneath the horse; I picked it up and found it to be a young yellow-breasted Vireo. He was too small to fly, so I took him in the house.

I fed him a while on potato; then took him out on the piazza. His loud chirping attracted the parents. I put him on my finger, and, after fifteen minutes of patient waiting, the mother bird flew down with a gypsy caterpillar, which she had taken from the apple tree. She first lit on my shoulder, then on my hand and fed her young. She continued to feed it for three quarters of an hour, when it became so dark I took it in the house and put it in a cage on the piazza roof for over night.

The next morning when I went to see how it was, I discovered another one of the brood on the roof; and before noon I had all four sitting on my finger, with the mother feeding them. The father only fed them once.

Fourth of July morning my sister and two of my friends each sat with a bird on their finger, while the mother fed them in turn. That night I put them in a tree close by, and the next morning, when I went to look for them, they had flown.—DWIGHT LEWIS FISKE (aged, 14 years), Winchester, Mass.

THE BLUEBIRD

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 24

Who dares write of the Bluebird, thinking to add a fresher tint to his plumage, a new tone to his melodious voice, or a word of praise to his gentle life, that is as much a part of our human heritage and blended with our memories as any other attribute of home?

Not I, surely, for I know him too well and each year feel myself more spellbound and mute by the memories he awakens. Yet I would repeat his brief biography, lest there be any who, being absorbed by living inward, have not yet looked outward and upward to this poet of the sky and earth and the fullness and goodness thereof.

The Bluebird's Country For the Bluebird was the first of all poets,—even before man had blazed a trail in the wilderness or set up the sign of his habitation and tamed his thoughts to wear harness and travel to measure. And so he came to inherit the earth before man, and this, our country, is all The Bluebird's Country, for at some time of the year he roves about it from the Atlantic to the Pacific and from Mexico to Nova Scotia, though westward, after he passes the range of the Rocky Mountains, he wears a different dress and bears other longer names.

The Bluebird's Travels In spite of the fact that our eastern Bluebird is a home-body, loving his nesting haunt and returning to it year after year, he is an adventurous traveler. Ranging all over the eastern United States at some time in the season, this bird has its nesting haunts at the very edge of the Gulf States and upward, as far north as Manitoba and Nova Scotia.

When the breeding season is over, the birds travel sometimes in family groups and sometimes in large flocks, moving southward little by little, according to season and food-supply, some journeying as far as Mexico, others lingering through the middle and southern states. The Bluebirds that live in our orchards in summer are very unlikely to be those that we see in the same place in winter days. Next to the breeding impulse, the migrating instinct seems to be the strongest factor in bird life. When the life of the home is over, Nature whispers, "To wing, up and on!" So a few of the Bluebirds who have nested in Massachusetts may be those who linger in New Jersey, while those whose breeding haunts were in Nova Scotia drift downward to fill their places in Massachusetts. But the great mass of even those birds we call winter residents go to the more southern parts of



UPPER FIGURES—CHESTNUT-BACKED BLUEBIRD

Order—PASSERES

Family—TURDIDÆ

Genus—SIALIA

Species—MEXICANA

SUBSPECIES—BAIRDI

LOWER FIGURES—BLUEBIRDS

Order—PASSERES

Family—TURDIDÆ

Genus—SIALIA

Species—SIALIS

their range every winter, those who do not being but a handful in comparison.

"What does this great downward journey of autumn mean?" you ask. What is the necessity for migration among a class of birds that are able to find food in fully half of their annual range? Why do birds seek extremes for nesting sites? This is a question about which the wise men have many theories, but they are still groping. One theory is that once the whole country had a more even climate and that many species of birds lived all the year in places that are now unsuitable for a permanent residence. Therefore, the home instinct being so strong, though they were driven from their nesting sites by scarcity of food and stress of weather, their instinct led them back as soon as the return of spring made it possible.

Thus the hereditary love of the place where they were given life may underlie the great subject of migration in general and that of the Bluebird's home in particular.

**The Bluebird
at Home** Before more than the first notes of the spring song have sounded in the distance, Bluebirds are to be seen by twos and threes about the edge of old orchards along open roads, where the skirting trees have crumbled or decaying knot-holes have left tempting nooks for the tree-trunk birds, with whom the Bluebird may be classed. For, though he takes kindly to a bird-box, or a convenient hole in fence-post, telegraph pole or outbuilding, a tree hole must have been his first home and consequently he has a strong feeling in its favor.

As with many other species of migrant birds, the male is the first to arrive; and he does not seem to be particularly interested in house-hunting until the arrival of the female, when the courtship begins without delay, and the delicate purling song with the refrain, "Dear, dear, think of it, think of it," and the low, two-syllabled answer of the female is heard in every orchard. The building of the nest is not an important function,—merely the gathering of a few wisps and straws, with some chance feathers for lining. It seems to be shared by both parents, as are the duties of hatching and feeding the young. The eggs vary in number, six being the maximum, and they are not especially attractive, being of so pale a blue that it is better to call them bluish white. Two broods are usually raised each year, though three are said to be not uncommon; for Bluebirds are active during a long season, and, while the first nest is made before the middle of April, last year a brood left the box over my rose arbor September 12, though I do not know whether this was a belated or a prolonged family arrangement.

As parents the Bluebirds are tireless, both in supplying the nest with insect food and attending to its sanitation; the wastage being taken away and dropped at a distance from the nest at almost unbelievably short intervals, proving the wonderful rapidity of digestion and the immense amount of labor required to supply the mill inside the little speckled throats with grist.

The young Bluebirds are spotted thickly on throat and back, after the manner of the throat of their cousin, the Robin; or, rather, the back feathers are spotted, the breast feathers having dusky edges, giving a speckled effect.

The study of the graduations of plumage of almost any brightly colored male bird from its first clothing until the perfectly matured feather of its breeding season, is, in itself, a science and a subject about which there are many theories and differences of opinion by equally distinguished men.

The Food of the Bluebird The food of the nestling Bluebird is insectivorous, or, rather, to be more exact, I should say animal; but the adult birds vary their diet at all seasons by eating berries and small fruits. In autumn and early winter, cedar and honeysuckle berries, the grape-like cluster of fruit of the poison ivy, bittersweet and catbrier berries are all consumed according to their needs.

Professor Beal, of the Department of Agriculture, writes, after a prolonged study, that 76 per cent of the Bluebird's food "consists of insects and their allies, while the other 24 per cent is made up of various vegetable substances, found mostly in stomachs taken in winter. Beetles constitute 28 per cent of the whole food, grasshoppers 22, caterpillars 11, and various insects, including quite a number of spiders, comprise the remainder of the insect diet. All these are more or less harmful, except a few predaceous beetles, which amount to 8 per cent, but in view of the large consumption of grasshoppers and caterpillars, we can at least condone this offense, if such it may be called. The destruction of grasshoppers is very noticeable in the months of August and September, when these insects form more than 60 per cent of the diet."

It is not easy to tempt Bluebirds to an artificial feeding-place, such as I keep supplied with food for Juncos, Chickadees, Woodpeckers, Nuthatches, Jays, etc.; though in winter they will eat dried currants and make their own selection from mill sweepings if scattered about the trees of their haunts. For, above all things, the Bluebird, though friendly and seeking the borderland between the wild and the tame, never becomes familiar, and never does he lose the half-remote individuality that is one of his great charms. Though he lives with us and gives no sign of pride of birth or race, he is not of us, as the Song Sparrow, Chippy or even the easily alarmed Robin. The poet's mantle envelops him even as the apple-blossoms throw a rosy mist about his doorway, and it is best so.

THE BLUEBIRDS

1. EASTERN BLUEBIRD (*Sialia sialis*)

Adult male.—Length 7 inches. Upper parts, wings and tail bright blue; breast and sides rusty, reddish brown, belly white. *Adult female*.—Similar to the male, but upper parts, except the upper tail coverts, duller, gray or brownish blue, the breast and sides

paler. *Nestling*.—Wings and tail essentially like those of adult, upper parts dark sooty brown, the back spotted with whitish; below, whitish, but the feathers of the breast and sides widely margined with brown, producing a spotted appearance. This plumage is soon followed by the fall or winter plumage, in which the blue feathers of the back are fringed with rusty, and young and old birds are then alike in color.

Range.—Eastern United States west to the Rocky Mountains; nests from the Gulf States to Manitoba and Nova Scotia; winters from southern New England southward.

1a. AZURE BLUEBIRD (*Sialia sialis azurea*)

Similar to the Eastern Bluebird, but breast paler, upper parts lighter, more cerulean blue.

Range.—Mountains of eastern Mexico north to southern Arizona.

2. WESTERN BLUEBIRD (*Sialia mexicana occidentalis*)

Adult male.—Above deep blue, the foreback in part chestnut; throat blue, breast and sides chestnut, the belly bluish grayish. *Adult female*.—Above grayish blue, chestnut of back faintly indicated, throat grayish blue, breast rusty, paler than in male, belly grayish.

Range.—Pacific coast region from northern Lower California north to British Columbia, east to Nevada.

2a. CHESTNUT-BACKED BLUEBIRD (*Sialia mexicana bairdi*)

Similar to the Western Bluebird, but foreback wholly chestnut. (See plate.)

Range.—Rocky Mountain region from Mexico north to Wyoming.

2b. SAN PEDRO BLUEBIRD (*Sialia mexicana anabelæ*)

Similar to the Western Bluebird, but back with less chestnut.

Range.—San Pedro Martir mountains, Lower California.

3. MOUNTAIN BLUEBIRD (*Sialia arctica*)

Adult male.—Almost wholly blue, above beautiful cerulean, below paler, belly whitish. *Adult female*.—Above brownish gray, upper tail coverts, wings and tail bluish, below pale fawn belly whitish.

Range.—Western United States from Rocky Mountains to Sierras, and from New Mexico north to the Great Slave Lake region.

Questions for Teachers and Students

How many kinds of Bluebirds are there? Trace their distribution on the map. How do they differ from one another? How far north does the Eastern Bluebird remain in winter? Are the Bluebirds we see in winter the same individuals that spend the summer with us? When do the Bluebirds begin to migrate northward? Do they travel singly or in flocks? Which sex comes first? When do the Bluebirds begin to nest? Where do they place their nests? Of what is the nest composed? Do both male and female build? How many eggs are laid? What color are they? Do Bluebirds raise more than one family in a season? What does the Bluebird look like when he leaves the nest? What do Bluebirds eat?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Membership in the National Association

- \$5.00 paid annually constitutes a person a Sustaining Member
- \$100.00 paid at one time constitutes a Life Membership
- \$1,000.00 paid constitutes a person a Patron
- \$5,000.00 paid constitutes a person a Founder
- \$25,000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York,

.....

.....

.....

New Year's Greeting

The President wishes every member of the Association and all others who are interested in the subject of bird and game protection a Happy and Prosperous New Year, and, at the same time, asks for their active coöperation in the work of our Society. They can give it in many ways, one of the most valuable of which is to encourage others to join the important economic movement we are carrying on.

The whole trend of the public mind just now seems to be toward a more intelligent consideration of the value of wild birds and animals. A great deal of this sentiment can be attributed to the active campaign made by the Audubon Societies during the past decade. This is progress which must be continued. It is a change in public sentiment which cannot be expressed in more beautiful words than the following:

"I see the hearts of men go out, in new love and care and understanding, to the beasts of the field and to the birds of the air; and in all these I see the mind of the Son of Man and the power of the Will Eternal."

About Investments

The Association has received from the Albert Willcox legacy the sum of \$256,078. The Finance Committee have invested \$245,500 in first mortgages on property in the City of New York, and the balance of \$10,578, which has only recently been paid into the treasury, will be invested as soon as a satisfactory loan can be found.

The Finance Committee never loan more than two-thirds of the appraised value of a property, the valuation being made by the firm of Douglas Robinson, Brown & Co., of New York, one of the most conservative real estate firms in the city; further, a Title Guarantee Company's insurance policy is also taken, guaranteeing the title, so that our investments are conservative and safe and earn five per cent interest, free of taxes.

Another member of this Society, lately deceased, who in life contributed twenty-five dollars annually to the work of the Association, left it a legacy of five hundred Dollars, thus continuing his contribution in perpetuity.

Reservation News

Warden Kroegel, in charge of Pelican Island, Florida, sends us frequent and interesting reports regarding the condition of the birds there. He writes that the first Pelican eggs were found about November 1, almost a month ahead of the date in 1905. On November 15, there were nearly one thousand nests with eggs in them and about five thousand birds on the island, and nest-building was still going on. He adds, it looks as though the island would be full this season. On December 12, he reports that the first birds were hatched the day before, that not many were out yet, but the island is very well filled up with nests.

During the recent marked fall in temperature throughout the South, when thin ice was made during two mornings at Pelican Island, Warden Kroegel reports that about one hundred and fifty young Pelicans, mostly birds just hatched, perished as the result of the freezing. On December 31, the largest of the young Pelicans were beginning to show wing-feathers; the cold did not seem to hurt birds of this size at all. He estimates that there are two thousand young birds upon the reservation at this date. All of the above shows the remarkable results that can be achieved by perfect protection.

At the Breton Island and Audubon Reservation, Louisiana, great changes have taken place. During the hurricane in September last, one of the largest islands in the reservation, Grand Cochere, which was a sand and shell heap, but an admirable breeding place for Terns, was entirely obliterated, washed away, so that the birds will have to seek another breeding place during the next season. The same storm carried away our house of refuge on Breton Island, and every sign we had upon the entire reservation. The largest island in the reservation, Breton, was infested with muskrats and raccoons, but the hurricane and consequent high tides swept over the island completely and every vestige of animal life was destroyed. This will make it an admirable breeding ground for the Terns, as there will be no mammals to destroy the young birds or eggs.

The reservation covers about seven hundred square miles of territory, in a part of the Gulf subject to violent storms; therefore, it has been deemed necessary for the safety of our wardens, and in order that they may patrol the territory more rapidly, to furnish them with a seaworthy boat. An order has been given for a boat forty-five feet long, fourteen feet beam, schooner-rigged, with an auxiliary engine of eighteen horse-power. It will have accommodations for four men and will be used exclusively for patrolling this large reservation, which undoubtedly will in time become one of the most wonderful of the bird-breeding grounds in the western hemisphere. Warden Sprin-

kle reports large numbers of Royal and Foster's Terns on the reservation as late as December 4, Black Skimmers December 9, and Common Terns and Laughing Gulls December 29. Wild birds soon discover where they are not interfered with or annoyed, and remain there.

Legislation

The year 1907 bids fair to be one of the most active legislative seasons ever experienced by this Association, as will be seen by the following outline of legislative work:

ALABAMA.—A bill of the most advanced character has been introduced. It embraces the Model Law and the following features: Short open seasons for game and birds; non-sale; non-export; establishment of a game commission; non-resident, alien and resident hunting licenses. A large amount of educational work has been done and every possible aid has been given to the Honorable John H. Wallace, Jr., who has taken charge of the bill. Vice-President Palmer visited the Alabama legislature for the purpose of fully explaining and advocating the bill.

CALIFORNIA.—This state is a hotbed, at the present time, of legislative activity, and there will undoubtedly be many important and drastic changes made. Secretary Way, of the California Audubon Society, is devoting a great deal of time and energy to this important work.

Mrs. Alice L. Park, Chairman, Humane Education Committee of the California Federation of Women's Clubs, has introduced in the legislature a bill to establish Bird Day in the schools. Mrs. Park, two years since, introduced a similar bill which was passed by both houses of the legislature, but unfortunately it did not receive the Governor's signature, and therefore Bird Day in the schools had to be postponed two years and the work has all to be done over again. This shows that a woman, when she knows she is right, and is serving the public, is not apt to be discouraged but continues the fight until she is finally successful.

CONNECTICUT.—An attempt will be made to change the open season for wild fowl and shore-birds from late in the spring until January 1. A great deal of preliminary work has been done to help accomplish this very greatly desired result.

IOWA.—Mr. George A. Lincoln, State Fish and Game Warden, has introduced in the legislature a resident hunting license bill in order to make the game commission of his state self-supporting. In this connection it may be stated that the benefits derived from the hunter's-license law are becoming better appreciated every day, and it will certainly be only a few years before every state shall have adopted this wise provision.

MASSACHUSETTS.—Mr. George W. Field, President of the Fish and Game Commission, has introduced a bill to "authorize the Commission to take certain unimproved lands upon the island of Martha's Vineyard." This is for the purpose of making firestops in order to protect the feeding and breeding grounds of Pinnated Grouse, or Heath-hen, and otherwise secure the maintenance of these birds or of any other species of wild birds upon the said island.

A strong effort will also be made to repeal the law permitting the killing of Herring Gulls and Great Black-backed Gulls in Massachusetts, which is the only state in the country that does not protect these two seabirds; and every bird-lover in Massachusetts should make it his first duty, after reading this notice, to write a strong letter to his representative in the legislature, urging that the present law shall be repealed.

It is known that the Game Commission of Maine has written to the Game Commission of Massachusetts protesting against the present Gull law in the latter state, on the ground that it is an injustice and a violation of the comity of states for Massachusetts to permit the killing of migratory birds which Maine is making special efforts to protect.

MISSOURI.—The conditions in this state are very interesting. Two years ago, the Honorable H. R. Walmsley succeeded, af-

ter strenuous work, in passing what is known as the Audubon Bill. This law prohibits the sale of game in Missouri and it also embraces the Model Law feature. St. Louis has always been one of the greatest selling and distributing points for game in the West, and the enforcement of the present law has restricted the business of the game dealers to such a degree that they are determined to repeal the whole law if possible, and, if not, that portion of it relating to the sale of game. It is reported that one game dealer spent \$2,000 to prevent the reelection of Mr. Walmsley to the legislature, which he was successful in doing. However, Mr. Walmsley cannot be prevented from taking an active part in defending the present excellent law of Missouri, notwithstanding he is not a member of the legislature.

The fight in the legislatures of Missouri and Texas this year is probably the initial step in a campaign that is necessary to prevent the total disappearance of the game-birds of this country, including, among them, water-fowl and shore-birds. If the *sale of game* is not totally abolished it is only a question of time, and probably a very short time, before there will be no game to protect or sell; and it is the duty of the public, especially those who love wild-life, to see that this question is settled once for all, not only in Missouri and Texas, but throughout the whole of North America.

On the one hand, the sale of game can be permitted for the benefit of a limited class of people, i. e., market-hunters, game dealers, and a few high-priced restaurants and hotels. On the other hand, the game-birds can be protected and perpetuated for the enjoyment of an exceedingly large class of persons who prefer the live bird in its natural surroundings and also for the benefit of a still larger class of persons, known as agriculturists, to whom birds of all kinds are of great economic value.

NEW HAMPSHIRE.—Following the suggestion made in the last annual report, it is probable that a bill will be introduced by Commissioner Nathaniel Wentworth, to establish a close season of ten years on the Upland Plover and the Wood Duck. The

Commissioner "thinks that it will be easy to pass such a bill, as the sentiment of the people is changing remarkably on the subject."

NEW JERSEY.—President Benjamin P. Morris, of the New Jersey Game Commission, in his excellent report to the Governor and legislature of the state, advocates very strongly the abolishment of spring wild-fowl and snipe shooting and also the adoption of the resident hunter's license law. His important recommendations will undoubtedly be acted upon, and this Association, of course, will do all that it can to help in this important matter.

The fact that in Connecticut and New Jersey, wild fowl can be shot after the first of January, has always been one of the strongest arguments brought by the Long Island duck shooters for the repeal of the New York law, and it is very pleasing indeed to know that the Game Commissions of New Jersey and Connecticut are both strongly in favor of having a wild-fowl law in their states, similar to the one in New York, because they realize that spring shooting is one of the greatest causes for the diminution of wild fowl, second only to market-shooting and sale.

NEW MEXICO.—Mr. W. E. Griffin, Game and Fish Warden, has agreed to introduce our Model Law at the present session of the legislature, and he writes: "From the present outlook, I believe little difficulty will be experienced in passing not only your bird law, but also a comprehensive game law."

NEW YORK STATE.—The battle in this state has not yet taken form, as the legislature has just commenced its session and it is too early to get an idea of what game bills will be introduced. There are many important changes that should be made in the present law; in fact, a complete revision of the mass of contradictory provisions in the New York law should be made. The proper way to do this would be for Governor Hughes to establish a commission to revise the entire game law; one member of the commission should be an ornithologist of national stand-

ing, to look after the interest of birds and game.

NORTH CAROLINA.—This is also one of the hotbeds of game legislation. The residents of certain of the counties on the coast where, for years, one of the industries has been killing Ducks for market, are determined to abolish the Audubon Society of North Carolina, or, if that is not possible, to remove all restrictions from some of the coast counties so the gunners may continue their market-shooting. It is the same old question whether the assets of a commonwealth, that belong to all the people, shall be confiscated and used by a very limited class.

Secretary Pearson recently visited Asheville and gave two public lectures. A local branch of the Audubon Society was formed, with 155 members. Asheville is the largest health-resort of the southern Appalachian mountains and is an important point for bird-protection work. Mr. George J. Gould has just agreed to contribute the sum of \$500 per year to help carry on warden work in this state, in which he has large property interests. It is fortunate that our secretary who has charge of the work in this district is young, strong and full of enthusiasm; for he needs every one of these qualities to successfully conduct the campaign that is now on, not only in his own state, but in the other six states under his supervision.

In this connection, it is of interest to call the attention of our members to the growth of Association work. Five years ago, one man, with the aid of a stenographer a portion of the time, could do all the work. Today the Association has at its main office, in New York, a staff of four assistants; the southern office at Greensboro, North Carolina, which is managed by our secretary, has a clerical staff of two. In addition, Mr. Edward Howe Forbush, late ornithologist of the Board of Agriculture of the State of Massachusetts, devotes his entire time to lecturing, organizing and getting new members for the Association in the New England states. The services of a lecturer and organizer for the states of Alabama, Mississippi, Louisiana, eastern Texas and Arkansas will shortly be secured. The foregoing will

give some idea of the expansion of the work of the National Association.

SOUTH CAROLINA.—Mr. Pearson will introduce a bill in the legislature, similar to the law in force in North Carolina, incorporating an Audubon Society in the state with all the powers of a game commission. From present appearances there is no doubt of the passage of the bill, as there is a growing interest in the state for bird and game protection.

THE DAKOTAS.—In both of the Dakotas bills of the most advanced character will be considered by the legislature. It is a matter of interest to the members of this Association to know that in nearly every instance when bills are introduced in any part of the United States, they are, when in preparation, submitted to the National Association for suggestions or revision. This gives an opportunity for the Association to recommend the adoption of the several fundamental planks in the platform of the National Association, which are, *non-sale of game, the abolishment of all spring shooting, and resident and non-resident licenses for every one who uses a gun.*

PENNSYLVANIA.—It is reported that an attempt will be made to make an open season on the Flicker. This effort will be made by a few persons living in one of the smallest counties in the state, who wish the privilege of killing this beautiful and very beneficial bird. In order to secure this privilege, protection must be removed from the bird in the whole state thirty days in the year, the time selected being in the fall, when the birds are migrating and are the most numerous. This is another one of the instances where a few individuals desire to take, for their personal pleasure and benefit, public property that every other individual in the state wishes preserved. The two Audubon Societies in Pennsylvania and the John Burroughs Society will have to see that this bill is killed, should it be introduced.

TEXAS.—The present bird and game law in this state is excellent, and it was retained

on the statute books largely by the work of Captain M. B. Davis, secretary of the Audubon Society, aided by the best sportsmen in the state, whose combined efforts prevented its repeal in 1905. It is likely that another attempt will be made to repeal this law during the present session of the legislature, and this Association is making a strong effort to maintain the integrity of the law and at the same time to strengthen it by establishing a game commission and also by having the resident, non-resident and alien hunter's license law passed.

There are a few men in Texas who make large sums of money every year by dealing in wild fowl. They are associated with the game dealers in St. Louis, Chicago, New York and other game-distributing centers. These are the men who are opposed to the present law and are trying to secure its repeal.

This Association has been making some investigations regarding wild-fowl conditions on the coast of Texas, and our representative finds a condition of affairs that is simply an outrage. On one occasion, at a railroad station, two market-hunters came in from the marshes with 205 Ducks, the result of that day's hunt. In a conversation, the hunter told our representative that he had hunted for market for sixteen years, going out every day except Sundays, while the Ducks were there, and doing nothing the balance of the year. He told of the diminution of water-fowl, and added, "There is no doubt but that they will be entirely exterminated within the next few years unless something is done to preserve them."

At another station, he found men who made a business of hiring gunners to shoot for them, to whom they supplied ammunition and guns and paid so much apiece for wild fowl which were shipped to Chicago and other places, contrary to the Texas non-export law. Our representative also learned that the gunners are afraid to send their water-fowl to the distributing points by railroad and, therefore, send them by small coasting vessels. On one of these boats he saw an ice-box six feet long by four feet wide and three feet high, which was filled with Ducks at the time he inspected it, the

number of which he estimated to be in excess of one thousand. This boat makes an average of one trip a week from the time the Ducks first arrive until the day the last one leaves for the North in the spring. Market shooting is illegal in Texas, but is carried on because the game dealers of St. Louis, Chicago, New York and other places get from the high-priced restaurants and hotels big prices for these birds. Every year the price of game increases, because the number of birds decrease. When the sportsmen of the country wake up to the fact that the next generation will not have any game-birds, they will probably be willing to join with the nature-lovers to stop the sale of all game and also to stop the killing of any game-birds after the first day of January.

This Association will have two active, intelligent, earnest workers represent it at the capital of Texas to prevent, if possible, the repeal of the present law, which necessarily compels the market-hunter to work secretly and gives them a great deal of what they consider, unnecessary trouble in shipping their illegal goods. We also hope to establish a game commission in Texas in order that the law may be enforced, and to have every man who uses a gun secure a hunter's license.

VERMONT.—Eternal vigilance is the price of safety for birds, and it is not prudent for the Audubon Societies to relax their watchfulness for a moment during the legislative season. In Vermont, a single fruit-grower thought he had cause for complaint against the Cedar Waxwing for eating his cherries. Without any thought of the results of his action, he sought relief for his fancied loss by an attempt to have protection removed by legislation from all the Waxwings in the state. By concerted action on the part of the Vermont Audubon Society and the good sense of the majority of the members of the legislature, the bill was defeated. It came up a second time in a modified form, i. e., that a fruit-grower might claim damages from the state on presenting proof that he had been damaged by Waxwings. It was not a difficult matter to show the members of the legislature that it would be practi-

cally impossible for any fruit-grower to furnish reliable evidence of damage. The mere fact that Waxwings were seen in a fruit tree would not be evidence that could be accepted by the state officials. The only evidence worthy of credence would be an examination of the stomach contents of the bird made by an expert. Such evidence it would be impossible for the complainant to furnish. The second bill was also defeated. In this connection the testimony of Mr. William Brewster, of Cambridge, Massachusetts, regarding the food habits of the Waxwings, is of great value and interest. There is no ornithologist in this country whose statements regarding the habits of birds have greater weight than those of Mr. Brewster, as he never gives an opinion unless it has been carefully weighed and is the result of long personal and exceedingly careful observation. In a recent letter to the National Association, he gives his views regarding the food of the Waxwings, as follows:

"I am convinced, by an experience of more than forty years, that the harm done in the East to small-fruit crops by Robins, Cat-birds and Cedar-birds has been greatly exaggerated. Where those fruits are grown in any quantity, the loss caused by the birds just mentioned is very trifling. My father used to maintain that the best way to deal with the birds was to furnish enough extra fruit to supply their wants and to allow them to eat it undisturbed. I have long acted on this principle and with perfectly satisfactory results. In my garden in Cambridge, six cherry trees have furnished us with more fruit each season than our family and friends have been able to use, both fresh and for preserving. Yet the swarms of Robins and the more or less numerous Cedar-birds, which visit these trees at all hours of the day, when the fruit is ripe, are never disturbed at their repasts.

"At Concord, where I have been cultivating a variety of fruit and berries for the past six years, I had much trouble at first because I did not allow sufficiently for the depredations of the squirrels (gray, red and ground squirrels), which, being carefully protected, were numerous and bold;

but by the simple and inexpensive expedient of increasing the number of fruit-bearing plants of every kind, I was soon able to supply the birds and squirrels with all the food of this kind that they cared for and to obtain for myself more than two families could use. I am quite aware that there are men in New England who grow such small fruits as cherries, raspberries and strawberries on a large scale for the markets, and who claim that the Robins, Catbirds and Cedar-birds cause them very heavy losses. I do not believe such assertions, for whenever I have investigated them I have found that they were practically without foundation. The man who has fifty cherry trees, or half an acre of strawberries or raspberries, has nothing to fear from either birds or squirrels; he who has only one or two cherry trees or only a few square yards devoted to strawberries is likely to lose almost his entire crop unless he protects his trees and plants by netting, which is not a difficult or expensive matter.

"Of our native birds, the Robin unquestionably does the most damage to small fruits, partly because of his greater abundance, than any of the other fruit-eating species and also because he spoils many a fine berry by pecking into it. The English Sparrow is still more destructive in this way. The Cedar-bird is seldom numerous enough to do much harm, and he never, as far as I have observed, mutilates cherries or other fruit which he does not eat. I have talked with other fruit-growers in eastern Massachusetts, and they agree that there is no serious loss from Cedar-birds. When the elm-leaf beetles first arrived in Cambridge, four or five years ago, the Cedar-birds assembled to prey on their larvæ and were of much service in this way."

PACIFIC ISLANDS.—Mr. William Alanson Bryan, the Honolulu representative of this Association, in a late letter states that "I hear of no further poaching in the outlying islands." How important and pleasing this information is, and how great the change from the conditions that obtained a few years since, can best be understood by a comparison with the following account of the

conditions that existed in 1902, at Midway Islands*; "August 21, 1902, we reached Sand, the larger of the two islets of the Midway group. We found no signs of recent occupants, other than the cast-off garments of the colony of Japanese bird-poachers, to whose work of destruction I shall later refer. Everywhere on Eastern Island great heaps, waist-high of dead Albatrosses (*Diomedea immutabilis*) Gooney, and Black-footed Albatrosses (*Diomedea nigripes*) were found. Thousands upon thousands of both species had been killed with clubs, the wing and breast feathers stripped off to be sold as hat trimmings, or for other purposes, and the carcasses thrown in heaps to rot. After my acquaintance with the colony of bird pirates on Marcus Island, it was but too apparent that a similar gang had been in full operation at Midway not many months prior to our visit, and that they had worked sad havoc among the birds there, in spite of the severe warning which had been given by Captain Niblack, of the Iroquois, to a party similarly engaged the season before. The work of exterminating the Midway colony was surely well under way, and I was convinced that unless something definite was done, and that at once, to prevent such wanton destruction, before long this colony of Albatrosses, as doubtless all those on the low, outlying islands, would be wiped out precisely as the one on Marcus Island had been.

"On my return to Honolulu I took the matter up with the proper officials in Washington, among others addressing a letter to the Chief Executive, with the result that the subject was brought to the attention of the various cabinet officers concerned. With the coöperation of Dr. Palmer, of the United States Biological Survey, together with the energetic services of Mr. William Dutcher, President of the Audubon Societies, to whom the whole matter of bird protection for the Pacific has been presented in person by the writer, most satisfactory results have been obtained. A naval vessel will, in the future,

*Report of a visit to Midway Island by William Alanson Bryan. Extracted from Director's Annual Report, 1905, Bernice Pauahi Bishop Museum, Honolulu. Also, see BIRD-LORE, Vol. VII, 1905, p. 301.

make at least two patrol trips each year to the outlying islands of the Hawaiian group to break up or prevent further depredations. The officers and men stationed on Midway have strict orders to protect the bird colonies there. The fishing rights to certain of the outlying islands will be let only by the Territory, with special clauses protecting the bird colonies thereon; while the Japanese government will, in future, refuse to allow predatory hunting and fishing vessels to leave Japanese ports.*

PHILIPPINE ISLANDS.—A valued correspondent, who is an officer of the United States Army, writes of the bird conditions in the Philippines as follows: "As far as bird destruction is concerned in these islands, I think there is practically or even absolutely none; for this there are many reasons. To possess a firearm of any kind one must have a special license obtainable only from Manila. Wild birds or any part of them are not used, as far as I have ever observed, by the natives for any purpose whatever. No native has energy enough to hunt for pleasure, even if he should have a gun. There is no tendency or capacity among the natives to take up any new industry. Hemp, rice, tobacco, sugar, fish,—nothing else practically. They never indulge in sport, as we understand it, except cock-fighting and a little introduced horse-racing. There are very few foreigners outside the big cities, and they are nearly all agents of the hemp, rice and tobacco houses, etc. I doubt whether a commercial skin has ever been shipped."

Mr. Richard C. McGregor, of the Philippine Bureau of Science, Manila, confirms the above opinion in the following words: "I think there are very few birds destroyed here; with the very rigid law on firearms, it is not probable that many species of birds will be hard pressed."

Notes and News

PLUME SALES.*—Bird- of - Paradise skins and 'Osprey' feathers were again in large supply at the Commercial Salerooms on October

*From 'Bird Notes and News,' Vol. 2, No. 4, 1906, London, England.

16, over 5,700 of the former being catalogued and nearly all sold. Of 'Osprey' feathers there were 485 packages, described as East Indian, Rangoon, Chinese, Venezuelan, Brazilian and Senegal; "short selected" reached as much as £8 per oz., "mixed heron" went as low as 4½d. and 6½d. The miscellaneous bird skins were almost all South American. Forty cases of quills included wing-quills of Pelicans, Swans, Albatrosses, Eagles, Hawks, etc., and tail-feathers of Buzzards and other birds of prey. At the sale on December 11, there were offered about 3,600 Birds-of-Paradise, 265 packages of 'Osprey' feathers, and 5,278 wing-quills of various birds. The miscellaneous skins, etc., included a very large number of heads of the Crowned Pigeon.

CAGE-BIRDS.—Occasionally dealers think that the vigilance of the National Association is relaxed in respect to cage-birds. Recently some dealers in Philadelphia thought it would be safe to offer for sale Cardinals and Mockingbirds. This was called to the attention of the Pennsylvania Game Commission, who promptly arraigned three dealers, two of whom paid fines, while the third has been foolish enough to appeal from the decision of the lower court.

EDUCATIONAL LEAFLETS.—There is a constantly increasing demand for our educational leaflets, which is not entirely confined to the United States. A request was received from N. Gest Gee, Soochow University, Soochow, China, and also from Mr. C. C. James, Deputy Minister of Agriculture, Ontario, Canada, who says, "perhaps these leaflets may be of use in connection with our school work." Miss Stebbins, Superintendent of Nature Work in the schools of Springfield, Mass., writes: "Your leaflets have been examined. They contain much of the information which I have found it rather difficult to put into the hands of my teachers. There are eleven school buildings, containing grade VII, in which we are especially pushing the matter of the economic value of birds; and we not only could, but should be delighted to have an opportunity to use your leaflets there. If you will send full sets to

me I will see that they are used in the schools."

WITH A CHECK FOR \$300.—A friend who sends us a check for \$300 writes: "I am only too glad to help protect the birds. I wish every one could realize, as I do, the damage, the terror, of the insect plagues we are facing in Massachusetts. It would not surprise me if in ten years all my spare pennies may have to go to protect my woodlands."

In this connection it may be stated that the gypsy moth has spread as far as Maine and also into Connecticut. How long will it be before this terribly destructive insect will have spread over a large part of the country east of the Mississippi. It bids fair to do as great damage as the boll weevil, which is steadily marching eastward.

USE FOR HERRING GULLS.—Mr. Edward Hatch, Jr., who employs a special warden to guard the Gulls breeding on his islands in Lake Champlain, writes: "I have found a practical use for the Gulls; they are the harbingers of pollution. They do not, and cannot, live where there is no pollution. They are the only scavengers Burlington and Plattsburg have, and they are working days and nights until the lake freezes over."

DENMARK.—It is with pleasure that we note that a bird-protective society, entitled, "Svalen" (The Swallow), has been established in Denmark. The secretary, Lieutenant Colonel L. Nehr, of Copenhagen, writes: "At the present time the society contains 75 circles and 4,000 members distributed all over Denmark. The aims and principles of the society are:

"To influence the public generally, by lectures, and by articles in the newspapers, and to disseminate information regarding the economic value of birds.

"To protect the useful birds.

"To discourage the murder of birds in southern Europe.

"To discourage the purchase and use of the feathers of any species of birds for ornamentation, except those of the Ostrich and domesticated fowls.

"To set up nesting-boxes and to feed wild birds in the winter."

The secretary adds: "The society will be represented at the Agricultural Congress in Vienna, in May, 1907."

MARYLAND.—In this state the Audubon Society has been reorganized, with new officers, and it bids fair to be an active, progressive organization.

Women's Clubs

The club women of the country are showing a splendid spirit and are doing a great deal to help the National Association in its effort to restrict the use of the "White Badge of Cruelty," which is sold by the milliners under the name of "Aigrette." Women of intelligence are unwilling to use millinery ornaments that can be obtained only by the sacrifice of life.

At a recent meeting of the Executive Board of the New York State Federation of Women's Clubs, it was determined to recommend to the State Federation that they should assist the Audubon Societies in their efforts to protect the wild birds and animals of the country. Although similar action was taken a few years since, yet the recommendation will be repeated and emphasized at the coming annual meeting.

At the meeting of the Woman's Club of Denver, Colorado, January 7, after hearing an address on the subject of bird protection, by Professor Felger, the following resolutions were unanimously adopted: "Inasmuch as the destruction of bird life will continue regardless of laws as long as the women of our land persist in wearing bird feathers for personal decoration; therefore, be it

"Resolved, That we, the Woman's Club of Denver, decry the use of *all feathers*, except those of domesticated fowls, for decorative purposes.

"Resolved, That we do hereby tender our hearty support to the efforts being made in the United States to discourage the sale of wild birds' feathers and to enact and enforce laws prohibiting the killing of wild birds for such purposes."

A Choice Collection of Memory Verses

NATURE STUDY IN THE POETS

Arranged for School Use by MARY ROENAH THOMAS, Teacher in the Hancock School, Boston

The teacher who sees to it that her classes of boys or girls commit to memory, first and last, a good many short, pithy, pertinent sentences, stanzas, lines or passages from the world's best literature will be doing them a service for which they will be grateful all their lives. This service will be of inestimable value not only as a pleasure and consolation in lonely or discouraged moments, but also as a positive and efficient means of intellectual growth. Many a humble boy or girl's life has been saved from ruin or lifted above the commonplace by just such a service as that which is so happily rendered by Miss Thomas's book.

The volume is the result of an unusually successful effort on the author's part to do, in the classroom, for her own pupils, the work which we have suggested in the above sentences. With rare discernment and exquisite literary taste she has searched the writings of the poets for those happy and inspired passages in which they have caught the very essence of some thought of God as expressed in Nature, and have put it into musical English.

She has drawn not only from the well-known poets like Wordsworth, Longfellow, Bryant, but also from some original sources. A number of bird poems, for instance, of unusual merit, and never before published, are contributed by a friend of the author's. The selections on the Seasons are arranged so as to portray the season's advance; that is, the stanzas coming first under the head of Spring give the sights and sounds of early spring, those which follow carrying the thought forward with the maturing season.

"Sounds from the Sea" and "Notes from the Field and Wood" are particularly rich and suggestive sections. There are brief quotations suitable for special days, such as Arbor Day, Memorial Day, Thanksgiving, Christmas, etc. Resourceful teachers will find many ways of using this delightful volume, which is alike valuable in the classroom and on the home table.

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Associate Curator of Ornithology and Mammalogy, American Museum of Natural History

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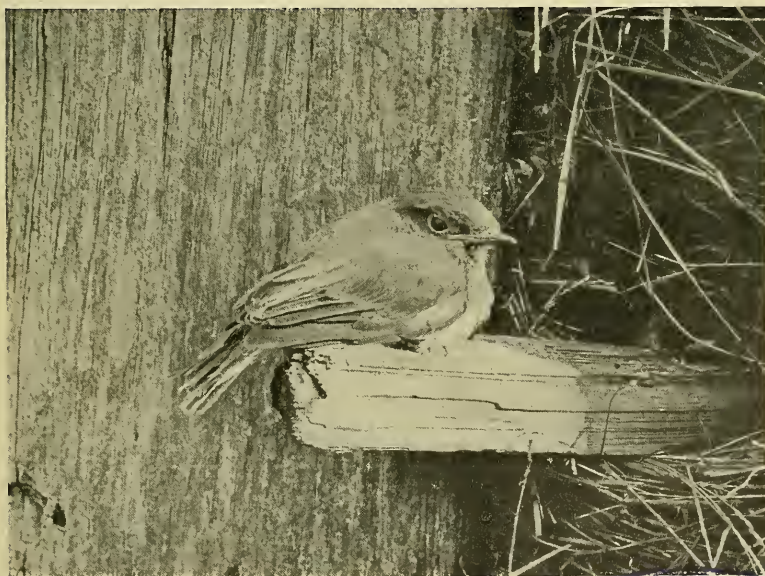
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NEW YORK CITY

Bird-Lore



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FRANK M. CHAPMAN

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Bird = Lore

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** Manuscripts intended for publication, books, etc., for review and exchanges should be sent to the Editor, at the American Museum of Natural History 77th Street and 8th Avenue, New York City, N. Y.



Reduced facsimile of the reproduction of Horsfall's colored drawing of the Evening Grosbeak. Presented to every subscriber to Vol. IX, 1907, of BIRD-LORE. The original, printed on heavy plate paper, suitable for framing, is life-size.

Subscribers whose subscription has expired will find a renewal blank enclosed in the present number of the magazine.

To those whose subscriptions expired with the January, 1907, issue and who have not notified us to discontinue their magazine, the present number is sent in the belief that the matter of renewal has been overlooked.

On receipt of your renewal we will send you the colored Grosbeak picture, which should be considered due notification of the entry of your subscription.

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DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. IX

MARCH — APRIL, 1907

No. 2

The House Finch from an Office Window

By W. H. BERGTOLD, Denver, Colo.

MANY a bird-lover laments, because, in the rush of his busy life, there is not more leisure to spend in the meadows, and forests, whither his bird friends constantly call. Probably he never dreams of studying live birds while at his office desk. We, however, who live in the towns and cities west of Kansas, have a charming bird with us always, right at our office windows, which, if it be given the smallest encouragement, is an unfailing associate and visitor, namely, the House Finch.

The House Finch is quite different, in habits, from its cousin of the East, the Purple Finch: it *prefers* to build in and about the haunts of man, on the points of vantage on houses and other buildings, and is perfectly at home on the large buildings in the center of a large busy city, remaining with us in the city the year round, and singing with sweetness and vigor all the warmer months, it even bursts into song on bright and warm days during the winter. This bird is a favorite with every one in Denver, and many people feed it during the colder months, but, strange as it may seem to our Eastern friends, the matter of drinking-water is a question more difficult for the Finch to solve in cold weather than is that of food. In this dry climate, where it scarcely ever rains in the winter, a season when at most there is but scant precipitation which usually dries promptly, the Finches find very little water left in the streets, on the roofs, or in the eave drains, and, too, this little is very often frozen, pressing the birds hard to find a drinking place.

The writer has, for some years past, kept a shallow pan filled with water, fastened to one of his office window-sills; this office is in a building located in the heart of Denver, surrounded by other high structures, and on the top (fifth) floor, the windows facing south and west. During freezing weather this pan is kept thawed with hot water; the Finches come to this little drinking-dish by dozens and dozens every day in the year, and chatter and dispute over precedence in taking a drink, like any diplomat at a presidential reception. Those about this office have learned that the quietly

and an astonished retreat to shore, to be repeated over and over again for the next few minutes.

These birds are good company and most welcome to roost in the folded window awnings these winter nights; they usually get ready to retire for the night about half an hour before sunset, and creep in and out of the canvas like Wrens. One can tell when they are nearly ready to go to bed, as they come in large numbers to drink before settling down for the night.

There came to the water last spring, for a while, a female with only one leg; it was in excellent plumage and flesh, but had difficulty in getting down to the water, though the surface was but little below the pan edge, its one leg being insufficient to steadily and surely lower and raise its body. We felt that an acquaintance was gone when, after a few calls, it returned no more. The writer's desk is within three feet of the water-dish; the birds drink fearlessly while they are being watched, and the charm of close acquaintance enhances the opportunity of studying every detail of color, hang of wing, attitude of legs and tail in alighting, hopping and drinking. And, too, the many different notes of alarm, companionship, encouragement, notes of discovery and anger are given clarity of identification by the closeness of observation; in fact, nothing can surpass the completeness of this way of learning bird character. They are often so close that one is reminded by their tiny, glistening black eyes, of Shakespeare's keen powers of observation when he makes Imogen say:

"But if there be yet left in heaven as small a drop of pity
As a Wren's eye." (Cymb. IV-2)



YOUNG GREEN HERONS

Bird Clubs in America¹

III. The Maine Ornithological Society

By J. MERTON SWAIN, Secretary-Treasurer.

THE association known as 'The United Ornithologists of Maine' was founded by Stephen J. Adams, of Cornish, Maine, January 1, 1893.

It was conducted for two years as a correspondence society without officers. During this period an attempt was made at organization, and a constitution was drafted; but, owing to the unsatisfactory results of the correspondence method and to certain contentions that arose, the idea was abandoned.

Increased interest, however, in the subject of ornithology in the autumn of 1894 warranted a second trial. Another constitution was drafted January 1, 1895, and a permanent organization was effected by the election of the following officers:

President, Stephen J. Adams, Cornish, Maine; vice-president, Charles B. Wilson, Waterville, Maine; secretary, William L. Powers, Gardiner, Maine; treasurer, Ralph Rockwood, Waterville, Maine.

The charter members were indeed few, as will be seen by the following list: Stephen J. Adams, William L. Powers, A. P. Larrabee, Ralph Rockwood, Charles B. Wilson, Maurice Royal, all of Maine.

It was the plan of the founders to publish a list of all birds that breed in the state, map their faunal areas, and add a list of migrants. At the close of 1895 the ranks contained thirty-five members, yet no active work had been done.

Early in 1896 new officers were elected and the work of the society began to take a definite shape. The following were chosen officers for 1896:

President, James Carroll Mead, North Bridgton, Maine; vice-president, Everett E. Johnson, Lewiston, Maine; secretary and treasurer, Ora W. Knight, Bangor, Maine.

President Mead at once entered upon a campaign of reform by appointing Mr. Adams, Mr. Lane and Mr. Powers a committee to revise the constitution. Negotiations were entered into with the leading papers of the state for space in which to publish the transactions, and the 'Maine Sportsman,' a monthly journal, published in Bangor, was decided upon as the most suitable organ. In the March number of that year there was a page devoted to our interests, edited by Ora W. Knight, of Bangor, and each succeeding issue contained a like amount of information, valuable to the student of ornithology.

In the April number of 1895, the committee on new constitution

¹ For Nos. 1 and 2 in this series, see BIRD-LORE, IV, 1902, p. 12. 'The Nuttall Club' and *Ibid.*, p. 57, The Delaware Valley Club.



(Standing) Hiram Ellis Sherman E. Phillips
 Mrs. A. E. Marks D. S. Hersey Thos. J. Emery Miss Etta Parker W. H. Brownson, Editor
 (Front row) J. Merton Swain, Sec'y., Treas. Leslie A. Lee, Pres. Mrs. A. H. Norton Miss E. W. Russell F. M. David
 Arthur H. Norton

reported their final draft, and in the May number President Mead was able to report its unanimous adoption by the society.

On December 28-29, 1896, the society held its first annual meeting in the high school building at Gardiner. The following officers were elected for 1897: President, A. H. Norton, Westbrook, Maine; vice-president, Ora W. Knight, Bangor, Maine; secretary and treasurer, William L. Powers, Gardiner, Maine; councilors, A. L. Lane, Waterville, Maine, and James Carroll Mead, North Bridgton, Maine. Five new members were elected at this meeting. Previous to this meeting, none of the members, outside of the Gardiner branch, had ever met.

In the spring of 1897, the hopes and ambitions of the members of the society were realized in the publication of 'The Birds of Maine,' under the able editorship of Ora W. Knight, of Bangor, the list having been prepared under the auspices of the society. Such was the demand for this careful and concise work that the supply was soon exhausted. One of the best and most enthusiastic meetings the society ever held was its second annual meeting, held in the rooms of the Portland Society of Natural History, in Portland, December 31, 1897, and January 1, 1898. All the officers were present and a goodly number of members. Twenty-nine new members were elected and several valuable scientific papers were read, among them, one of especial interest, 'How I Became an Ornithologist,' by Hon. George A. Boardman, of Calais (the pioneer naturalist of the St. Croix valley). These papers were placed in the hands of Editor Mead for publication in the official organ, 'The Maine Sportsman.' Messrs. Lane, Hitchings and Knight were appointed a committee to consider a new and appropriate name for the society and to report at the next meeting. The society, too, voted to make a special study of a family of birds, by each member, and make reports at each annual meeting. At the third annual meeting held in Waterville, it was voted to change the name of the society to 'The Maine Ornithological Society'. A proposition made by Mr. Knight to publish the proceedings of the society separately was accepted, and Clarence H. Morrell, of Pittsfield, was elected editor, with Mr. Knight as publisher. It was voted to call the new publication, The Journal of the 'Maine Ornithological Society.' To Mr. Powers belongs the honor of suggesting the name of the society, and to James Carroll Mead for the name adopted for 'The Journal.'

The first number of 'The Journal' appeared as a quarterly in January, 1899, and the three following numbers, with an average of ten pages, were well filled with material of much interest to students of Maine birds. Owing to Mr. Morrell's ill health, he declined to serve as editor of Vol. II, and at the fourth annual meeting held in Brunswick, Mr. J. Merton Swain, of Portland, was elected to succeed Mr. Morrell as editor. At the completion of Vol. II, Mr. Swain assumed the publication of 'The

Journal' also. Slowly, but surely, it was enlarged and put on a better paying basis by increasing the advertising and enlarging the subscription list. Mr. Swain was reelected for five consecutive years. At the close of Vol. VI, owing to pressure of business, and the conviction that for that reason he could not do justice to 'The Journal,' and to the fact that he was chosen by Mr. Knight to serve on the committee to assist in writing 'The Revised List of the Birds of Maine,' Mr. Swain resigned the office of editor and was elected secretary and treasurer. Mr. W. H. Brownson, 'of Portland, was then elected editor by the society, and under his management 'The Journal' has continued to improve and increase in value and popularity. Still greater improvements are in contemplation as fast as a larger list of members and subscribers can be added. Many papers of interest, relative to Maine birds, have been published from time to time. In Vol. V, No. 4, a series of papers, 'Notes on the Finches Found in Maine,' by Arthur H. Norton, was begun. It was concluded in Vol. VI, No. 3. In Vol. VI, No. 2, began a series of papers, 'Contributions to the Life Histories of the Warblers Found in Maine,' written by Mr. O. W. Knight and Mr. Swain, and these are still being published in the current volume. For several years the members have been making spring and fall migration reports. The results have been tabulated by Mr. Dana W. Sweet, and published from time to time in 'The Journal.' The society at once became prominent in the work of protecting the breeding colonies of sea-birds when the wave of sentiment swept the whole country to stop the wanton destruction of birds for plumage to adorn millinery. It at once responded to the call to assist the A. O. U. committee on protection and the Audubon society committee, rendering valuable aid. The adoption of the A. O. U. model bird law by our state legislature was effected through the efforts of our society.





A BLUEBIRD FAMILY

Clay Bird-Houses and Bird-Baths

By ROBERT W. HEGNER

With photographs from nature by the author

A PROBLEM that greets us with the coming of each spring is that of attracting the birds to our homes. One of the best magnets is the artificial nesting site, or bird-house. The most common bird-house birds are the Wrens and Bluebirds. Whenever possible, the Bluebird will build in a deserted nest-hole of a Woodpecker or a weather-worn cavity in a tree. The pair of Bluebirds in the illustration nested in a cavity in a fence-post. They had five young almost ready to fly when the photographs were made.

Wrens nest in similar situations, but will build in bird-houses whenever possible.

The introduction of manual training and nature study into graded schools has given a great opportunity to teach the value of birds by means of the bird-houses made by the children. The children at the School of Education of the University of Chicago studied carefully all the kinds of birds that are known to nest in artificial sites, and then



HOUSE WREN

each one selected the bird for which he wished to build, and drew his plans accordingly. In the spring of 1906, these children, in coöperation with the Chicago South Park Board, made several hundred Wren- and Bluebird-houses which were placed in trees in Jackson and Washington Parks. A photograph of the children, each child with his bird-house, about to start for the park, was published in the May, 1906, number of the 'Elementary School Teacher.' A new method of building bird-houses was recently adopted in the clay-work department of this school. The children in the sixth grade modeled them from clay. They made them with concave backs, so that they would fit the trees for which they were intended and could be fastened easily by wires. They were baked a brownish color resembling the trees, as a protection from various enemies. Several of the children wrote the name of the bird they wished for a tenant in sunken letters on the front of their production. One of the finished efforts is so ingenious as to warrant a drawing and description. This house is



CLAY NEST BOXES

the one in the center of the lower row in the illustration. The builder of it furnished it with a lid so that the contents could be examined at pleasure. Bird-baths had been under discussion, and this lid was made concave so that the rain would fill it with water. A gutter led from this bathtub to a cup of clay built on one side of the structure. This cup caught the overflow and directed it through a small hole into another cup on the inside. This made it possible for the bird to drink without leaving the nest. On the other side of the house two other cups were fastened. The cup outside was for food, which was to be protected by a lid. The food was to run through a hole into the cup inside as fast as the



A BIRDS'- BATH

sitting bird desired. I do not know how successful this house has proven during the two years it has been in use, but it certainly is a model of modern methods in sanitation.

An accompanying illustration shows an excellent bird-bath. This is the work of Mrs. W. M. R. French, of Beverly Hills, Illinois. About four feet from the corner of the veranda of her home there is a connection for the garden hose. From this an abundant supply of water was obtained and a bathing pool was built just beneath it. A shallow hole was dug two feet wide, three feet long, and eight inches deep. This was lined with small cobbles laid in cement. The end away from the tap was made lower than the upper end, and the superfluous water ran down a slight incline to the roots of a large oak tree, the visiting place of a remarkable number of birds at all times of the year. Every day throughout the summer a swift stream of water was turned on which effectually cleaned the tub and left a clear, cool supply for the thirsty birds. No account has been kept of the varieties and numbers of birds that visited the

bath, but it very soon became known to the feathered neighbors and they came daily for their refreshment. Blue Jays, Catbirds, Bluebirds, Robins and Wrens at once took possession, and not only were visitors but built their nests and made their homes in the trees and bushes about the yard. And the birds were not alone in their appreciation of their hostess' kindness, for many a dog has quenched his thirst at this same fountain.

A large pedestal for flowers which stood on the lawn served as a bathing and feeding place for birds, and its attractions were many. These are only two of the devices at the home of Mrs. French for bringing nature to the doorstep. Bird-boxes, food during the winter, and succoring the strayed, injured or stolen were other activities that made the lives of the wild inhabitants happier in this vicinity. The final result will no doubt be the continued presence of birds and a general uplifting of the men, women and children who become interested in them.



A BATHING FOUNTAIN

A Gentle Criticism

By JOHN LYALL GARRETSON

With photographs by the author

LET us encourage the study of natural history with the aid of the camera, and by our friendly criticism may we cause others to think of ways to benefit themselves and at the same time bring pleasure into the hearts of the lovers of nature.

With this idea in mind, it is the desire of the writer to call attention to the pages of many of our best magazines on natural history, with their interesting pictures, especially of birds, many of which are



YOUNG RUBY-THROATED HUMMINGBIRDS

admirable for what they bring to us, but are not strictly true representations of nature.

The pictures, as we see them, truly portray the birds of the woods and meadows while in a state of alarm; hence, they convey to us false impressions of what we believe to be animal life in its wild state.

The question before us is: How may we overcome the obstacles which hinder us from accomplishing the end we are striving for; that is, photography of nature while at home, as it were?

There seems to be but one solution to be offered, and that is, to so arrange our work that the subject photographed be wholly uncon-

scious of what is taking place: thus we eliminate all timidity on the part of our shy friends. Then only are we on the road to successful animal photography.

The best picture is not the most difficult one: but that one which brings nature to us as it exists away from harm's reach, and is an



PHOEBE

honest representation of the manner in which God's creatures live while at home.

The expression, "at home with the birds," sounds very nice, but we should add, "while entertaining company," and we will conclude that the bird acts as unnatural while in the presence of strangers as does the human being.

Attention may be called here to the intelligent, peaceful expressions shown in our pictures of the domestic animals where there is no suggestion of alarm. Is this not ample proof that, in order to obtain the best photographs of our wild animals, we must press the bulb while they are unconscious of our presence?

It is seldom that we see a photograph of a bird standing on one leg with his feathers all ruffled up, and yet how well do we know from our observations with the field-glass, that this is one of the most common poses for a bird to assume!

The picture of the Humming-birds shows them full-grown and very nervous, being ready to take flight at any moment. This picture, although interesting, could hardly be called natural, since the birds are intently

watching the observations of the intruder. Shortly after the picture was taken they left the nest, flying, to all appearances, as well as their parents.

The young Phœbe here shown has a distinct naturalness which is lacking in the other attempts, for the reason that the bird was wholly unconscious of observation.

Let us have pictures of our birds, as of ourselves, exhibiting an unrestrained naturalness and ease of manner.



KINGFISHER

Photographed from nature by R. H. Beebe, Arcade, N. Y.

The Migration of Thrushes

SECOND PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

AMERICAN ROBIN*

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
New Market, Va.	12	February 23	A few winter
Washington, D. C.	7	February 26	A few winter
Waynesburg, Pa.	4	February 21	February 15, 1893
Beaver, Pa.	4	February 17	February 16, 1890
Berwyn, Pa., early years	7	February 14	January 16, 1899
Berwyn, Pa., late years	13	March 7	February 26, 1901
New Providence, N. J.	6	February 24	January 1, 1892
Selden, N. Y.	7	March 1	January 17, 1892
Flatbush, N. Y.	6	March 6	February 9, 1892
Alfred, N. Y.	14	March 11	February 18, 1900
Shelter Island, N. Y.	6	March 16	January 1, 1887
Branchport, N. Y.	9	March 11	February 29, 1896
Boonville, N. Y.	10	March 20	March 4, 1889
Center Lisle, N. Y.	13	March 19	March 1, 1902
Holland Patent, N. Y.	17	March 18	March 6, 1894
Ballston Spa, N. Y.	16	March 18	January 20, 1892
Paradox, N. Y.	4	March 25	March 20, 1889
Hartford, Conn.	13	March 16	February 26, 1888
Providence, R. I.	9	March 11	January 4, 1905
Eastern Massachusetts	19	March 11	January 1, 1903
St. Johnsbury, Vt.	10	March 21	March 9, 1902
Hanover, N. H.	5	March 20	March 13, 1898
Southwestern Maine	18	March 21	March 3, 1902
Halifax, N. S.	4	March 19	January 1, 1890
Grand Manan, N. B.	5	March 24	March 14, 1889
St. John, N. B.	10	March 30	March 12, 1898
Pictou, N. S.	5	April 1	March 15, 1887
North River, Prince Edward Island	4	March 31	January 9, 1887
St. Johns, Newfoundland	11	April 6	March 25, 1865
<i>Mississippi Valley—</i>			
Central Tennessee	7	February 19	A few winter
Central Kentucky	7	February 20	A few winter
Bloomington, Ind.	7	February 14	January 16, 1887
Waterloo, Ind. (near)	11	March 2	February 22, 1891
Wauseon, Ohio	7	February 28	February 6, 1887
Oberlin, Ohio	7	February 28	February 14, 1897
Ann Arbor, Mich.	19	February 24	January 24, 1904
Central Michigan	7	March 28	March 16, 1889
Northern Michigan	5	April 3	March 23, 1894
Rockford, Ill.	6	March 10	February 2, 1891
Chicago, Ill.	18	March 13	February 25, 1888
Strathroy, Ont.	13	March 8	February 19, 1890
Toronto, Ont.	10	March 12	Wintered 1888-89
Listowel, Ont.	11	March 13	Wintered 1891-92
Southeast Parry Sound District, Ont.	14	April 6	March 9, 1902

*The more western records refer to the Western Robin.

SPRING MIGRATION continued

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Mississippi Valley, continued</i>			
Ottawa, Ont.	15	March 23	January 9, 1894
Keokuk, Iowa	12	March 2	January 12, 1902
Fairfield, Iowa (near)	14	March 5	January 14, 1891
Iowa City, Iowa (near)	12	March 5	January 1, 1879
Davenport, Iowa (near)	14	March 8	February 18, 1890
Southern Wisconsin	14	March 12	March 2, 1885
Wisconsin. Latitude 45°	11	March 25	February 15, 1892
Lanesboro, Minn.	10	March 18	March 4, 1889
Heron Lake, Minn.	6	March 26	March 19, 1894
Minneapolis, Minn. (near)	12	March 24	March 9, 1903
Northwestern Minnesota	8	April 7	March 28, 1905
Onaga, Kansas	6	March 5	February 28, 1896
Syracuse, Nebr.	11	March 1	Wintered 1904-05
Argusville, N. D.	11	April 10	April 1, 1892
Larimore, N. D.	9	April 6	March 25, 1905
Aweme, Man.	12	April 10	April 2, 1905
Reaburn, Man.	10	April 13	April 7, 1901
Qu' Appelle, Sask.	5	April 10	April 4, 1904
Fort Providence, Mack. (near)	2	May 1	April 29, 1905
Fort Simpson, Mack.	3	May 3	May 2, 1861
Fort Enterprise, Mack.			May 14, 1821
Kowak River, Alaska			May 20, 1899
Rathdrum, Idaho	6	February 25	January 20, 1900
Columbia Falls, Mont.	5	March 21	March 15, 1896

PLACE	No. of years' records	Average date of last one seen	Latest date of last one seen
Northern Florida	5	March 14	April 27, 1887
Central Mississippi	5	April 6	April 16, 1902
Fredericksburg, Texas	3	April 8	April 26, 1895
Pasadena, Calif.			April 17, 1897

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Northern Florida	3	October 9	August 8, 1890
Southern Mississippi	6	October 20	October 9, 1897
Fredericksburg, Texas	4	October 22	October 15, 1894
Pasadena, Calif.			October 5, 1897

FALL MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Kowak River, Alaska			September 7, 1898
Great Bear Lake, Mack.			September 25, 1903
Columbia Falls, Mont.	3	November 14	November 20, 1892
Aweme, Man.	9	October 22	November 4, 1901
Northwestern Minnesota	4	October 26	November 5, 1895
Lanesboro, Minn.	6	November 6	Wintered 1888-89
Onaga, Kansas	3	November 23	November 27, 1904
Keokuk, Iowa	10	November 12	Wintered 1888-89
Ottawa, Ont.	14	November 12	November 29, 1888
Galt, Ont.	7	November 24	December 15, 1901
Oberlin, Ohio	7	November 4	November 28, 1896
Chicago, Ill.	8	November 11	November 21, 1904
Alberton, Prince Edward Island	5	October 31	November 3, 1897
St. John, N. B.	4	November 5	Wintered 1893-94
Montreal, Canada	4	November 4	November 8, 1887
Southwestern Maine	15	November 12	December 8, 1904
Renovo, Pa.	9	November 10	November 20, 1899
Berwyn, Pa.	10	November 20	December 23, 1894

'Oölogy a Science'

To the Editor of BIRD-LORE:

The recent discussion of this subject in BIRD-LORE and 'The Condor' has been one of considerable interest, but in spite of the various views given it still seems that the crux of the question has been passed unnoticed. In the first place, it must be admitted that oölogy is not embryology and that, therefore, it is more or less unreasonable to discard the former because it has given no results to the latter branch of science. Oölogy, even at its best, has nothing to do with the development or structure of the embryo, except in so far as it affects the removal of the same from the shell. Therefore, oölogy, as oölogy, should not be tried on its merits as embryology, though it is difficult to see how any thorough naturalist can be unfamiliar with the great names cited in former letters on this subject.

Mr. Lucas has mentioned several cases where external ovarian features have yielded greater or lesser results in capable hands, and a few more might be cited that have shown confirmatory evidence of taxonomical relationships, but here is the point—are these few and isolated results enough and sufficient to dignify the subject as a special 'ology'? Is there a series of facts in nature, however commonplace they may be, that, with the same amount of work as has been expended upon egg-shells, would not have yielded equal if not greater results? Do these meager results warrant us classing egg-shell study, as a whole, as scientific?

On one point all authorities seem agreed, that nest-hunting does afford

admirable facilities for the study of bird habits and life-histories, but is not this but a by-product of oölogy? Are eggs collected for the sake of the life-history knowledge thus gained, or are habits studied to aid egg-collecting? In other words, is life-history the end of oölogy, or is it a means to an end? If the former is the case, egg-collecting must be looked upon as scientific, but in the latter we can only regard it as in the nature of kindergarten work and as a means of absorbing knowledge in a pleasant way.

The fact that some of our greatest ornithologists began as collectors of eggs does not alter the question in any way; they began in the kindergarten, that is all. The question is, "How many of them kept at it when they grew able to do better?" This immediately brings to mind the memory of the late Major Bendire, who, perhaps, reached the high-water mark in American oölogy. But what part of his fame rests upon his oölogical work? If we eliminated the strict oölogical matter from his 'Life-Histories,' would the latter be seriously damaged? Reverse this operation and what would be left? If the pursuit of egg-collections was the only way in which knowledge of the habits of birds could be attained, the question would have a different aspect, but could not Bendire have learned as much of birds and their ways if he had taken up photography, or had sought to tag nestlings for migrational study, or, in fact, had taken up any one of the many subjects of inquiry that suggest themselves? Until such is proved to the contrary, the case of Bendire, and others of his class, cannot go far to substantiate the scientific claims of the oölogist.

Mr. Lucas asks also whether the *average* skin-collector is any less of a "mere collector" than the *average* oölogist? I am afraid that he is not, but there is this difference; he is of more use to science than the latter. A skin, with its locality and date, is always of value irrespective of the maker. It bears its own identity upon itself, and at any time may fall into the hands of those who can use it. A properly made skin made by a savage is of as much importance as one made by Mr. Ridgway, except, perhaps, for sentimental reasons. Some of our most valuable data has been gathered from old collections made by "mere collectors." As much cannot be said for egg-collections. Egg-shells can, in the great majority of cases, be only identified by the label and data attached, and this can never, in any case, be any more reliable than the knowledge of the one that wrote it. Their identity is but the opinion of one man, and once the record is made, mistakes can never be corrected. Add to this that, in many cases, absolute identification is impossible to make without taking and preserving the parents, and that at all times the utmost care must be taken to make sure that the eggs really belonged to the supposed parents, and we have ample reason for doubting what little value there is in the "mere collector" of eggs.

Mr. Lucas says that his letter must not be taken too seriously, thereby admitting that his words are but an apology and not a justification, and it is well that he does add that qualifying statement when he comes to speak of the comparative values of Old Squaws and Great Auks. I would not like to offer him a skin of the latter in straight exchange for one of the former. He would likely defend his eagerness to trade on good, scientific grounds.

The mention of the name of Sir Alfred Newton as a defender of the oölogist, made me naturally turn to his Dictionary of Birds, but I find that he does not seem to deem the word oölogy as of sufficient importance to even mention it as a separate heading, and only refers to it under the heading of "egg," p. 182. This edition is dated 1899, and seems to indicate that with years a riper judgment has considerably altered his opinions on this question. I quote what he says about it:

"It is, therefore, eminently pardonable for the victims of this devotion to dignify their passion by the learned name of 'Oölogy,' and to bespeak for it the claims of a science. Yet the present writer—once an ardent follower of the practice of birds'-nesting, and still, on occasion, warming to its pleasures—must confess to a certain amount of disappointment as to the benefits it was expected to confer on Systematic Ornithology, though he yields to none in his high estimate of his utility in acquainting the learner with the most interesting details of bird-life. . . ." This seems to sum up the question in a few words that I have taken considerable space to state. The apologetic tone that is so evident in Mr. Lucas' letter and the editorial of Mr. Grinnell's in 'The Condor,' is most evident here.

In conclusion, I am induced to give the gist of a quotation that floats hazily through the brain—from I know not where—but to the effect that the greatest interest in oölogical work lies in "What contains the egg and what the egg contains."

This may be epigrammatic, but we sometimes find a good deal of truth even in an epigram.—P. A. TAVERNER, Highland Park, Mich.

Plumages of the Robin

The colored plate of the Robin, published in this number of BIRD-LORE, shows the female as duller than the male. Often, however, the sexes cannot be distinguished in color, the female being fully as bright as a richly colored male.

Notes from Field and Study

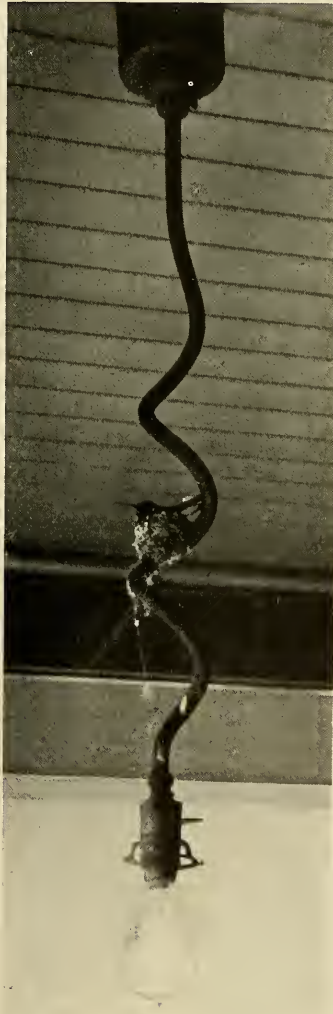
A Hummingbird That Wanted Light

The accompanying picture shows the nest of a Broad-tailed Hummingbird built in a most peculiar situation. I presume it to have been the above-named species, as that is the most common one in this locality, but as only the female was seen I cannot be positive, for the females of the Broad-tailed and Rufous-backed Hummers are too much alike to be told apart unless one has the specimens in hand. This nest was built, as the photograph shows, on an electric light fixture on the porch of a residence in Colorado Springs. The light is directly in front of the front door of the house, and so close to it that the screen door, which swings out, comes within a few inches of the lamp when opened. It was July 18 when the picture was taken. At that time people were passing in and out quite frequently, and sitting on the porch much of the time, but they did not seem to disturb the bird.

The picture shows how the nest was placed on the fixture much better than I can describe it. In taking the picture I must have been at work over a quarter of an hour, but the bird never budged, though I was fussing about with a step-ladder, using that for a support for the

camera, in order to get somewhere near to a level with the nest. Several exposures were made, the longest of a minute, the others less, but all were time exposures, and not a single negative shows any trace of the bird having moved.

Two young were successfully reared in the nest and flew away. The parent bird was seen to come back once after the young had left, examine the nest, and then depart. Possibly, of course, this may have been another bird attracted by the sight of the nest. It certainly seems to be a very remarkable instance of confidence on the part of a bird, when one considers the publicity of the location and the constant disturbance the bird was subjected to by people passing in and out, and moving about on the porch.—EDWARD R. WARREN, *Colorado Springs, Colo.*



The Feeding Habits of the Blue Jay

In the November-December, 1906, number of *BIRD-LORE*, the Editor offers a welcome to the testimony of ornithologists from the Mississippi valley upon the feeding habits of the common Jay. It was my good fortune, through a period of nearly twenty years, to be an interested observer of bird-life in that region, principally along the Baraboo and Wisconsin rivers.

The Jay, like the poor of the scriptural passage, was always with us, summer and winter. In the latter season he frequented largely the corn-cribs of the farmers, and would even come familiarly into the woodshed of the house where we lived in the edge of the village. As a boy I liked the sociable fellow in winter; but when the spring and summer came the Jay was hated by all the other birds, and I could not help sharing in their feeling. In the "oak openings," as we called them, along the edge of the prairies, he was the one sly and ferocious robber of eggs and young birds. The Migrant Shrike made his feather-lined nest in the locusts or amid the thorny depths of the osage orange hedges, and he took also its occasional toll of a Sparrow in summer and Nuthatch in winter. But I have never seen the birds gather in screeching flocks against the Shrike as I have seen and heard them with the Jay. My remembrance of the Jay's depredations upon the young of birds recalls more especially his greed for the young of the Baltimore Oriole. With the exception of the regions along the river-bottoms there were few elms and maples, and the Orioles built their nests most often in the top branches and twigs of the bur-oak. These were sufficiently stiff to permit of so large a bird as the Jay perching upon them and making of the young Orioles an easy prey.

But the robber was not particular in his choice. All the birds hated him, and he preyed upon the eggs and young of all.

May I also add this, however, as a possible explanation of the varying observation and verdict of different bird-students as to the habits of the Jay. His feeding habits may be different in different localities, and even at different times. I state this from my observations of another species of birds. That other species is the Bronzed Grackle. The western sloughs and river-bottoms fairly swarmed with this Grackle, and yet, in all the twenty years of my residence in Wisconsin, I never saw a Grackle molest a nest, or eat either egg or young.

In the East I have lived now for something over thirty years, always and in many different localities, taking deep interest in the birds. But until I came to my present place

of residence I never saw a Grackle rob a bird's nest. But eleven years ago, on coming to Litchfield, the marauding habits of the Purple Grackle were forced upon my notice to such an extent that if it had been my only experience with the birds I should have said that their chief diet during the nesting season is made up of the eggs and young of other birds. These depredations went on through a period of three or four years. The Robins were the special victims. Hardly a nest in the apple trees about our door, and, in so far as we could see, in the orchard of our neighbor, escaped. The constant bickerings of the Robins and the harsh cry of their enemies under attack, quite spoiled our spring-time pleasure. I have seen, at such times, the Grackle making off with fledglings of the Robin which were quite a load for him to carry.

Now here is the strange part of the story:— For four years I have not seen a single depredation of a Grackle upon the nest of Robin or other bird. It is true that the Grackles, during this period, have not been nesting near us in such numbers as they did. But they have been present in the region, and I can only attribute the peacefulness of these later times to a change of habit on the part of the black freebooters. In tropical countries, where the tiger abounds, it is not true that all tigers are man-eating ones; but let the tiger once get a taste of human blood and then he becomes the terror of the villages, lurking in wait and snatching his victims wherever he can come upon them. May not the same be true of the *bird-eating* Jays and Grackles? — JOHN HUTCHINS, *Litchfield, Conn.*

The Blue Jay as a Destroyer

In Dundee, Illinois, while walking down one of its shady streets, I heard a great commotion among the English Sparrows. Glancing up on to the outstretching bough of a box elder, I saw a Blue Jay ferociously tearing to pieces and devouring a young, callow Sparrow just picked out of its nest. It had no feathers on. The nest was conspicuous a short distance off. A friend of mine testifies that she saw at Stevens Point,

Wisconsin, a Blue Jay eating the remains of a young Song Sparrow just filched from its nest on the ground.

If the Blue Jay will confine its diet to the young English Sparrow I am fairly content, and could see a possible way by which we could be rid of some of these miserable rats of the air; but when the question is turned toward a depletion of the beautiful Song Sparrow, there I have to weigh evidence.

The large nests of the English Sparrow are such objective bunches of deformity, perhaps the Jay will go for them sooner than for the diminutive homes of the Chipping or the Song Sparrows, when we could allow the Jay to continue in his depredation. I don't believe every pair of Jays go into this kind of business; yet there is testimony enough here in the West to establish the fact that as much as we delight to see the bird on a cold winter's day, yet he does sometimes develop strong cannibalistic tendencies.—GEO. B. PRATT, *Chicago, Ill.*

The Blue Jay's Food

The appended quotation is from the Boston 'Evening Record' of January 3, 1907. Blue Jays are very plenty here, as well as brown-tail moth nests. I shall watch the Jays most carefully, and if I find this good work is kept up shall be glad to report it to you. It will be interesting to know if you receive any reports of like nature from other sections.—GEO. G. BLANCHARD, *Wilton, N. H.*

BLUE JAY EATS MOTHS AND MOTH EGGS

"Wilton, N. H., Jan. 1.—The Blue Jay is helping to solve the brown-tail moth question. Dr. Hatch reports that he witnessed a sight which will be of interest to all the people of New Hampshire, and it may in a measure help out the brown-tail moth question. While calling upon a patient he noticed a Blue Jay at work on a tree near the window.

"Upon investigating he found it was breaking into the nests of the brown-tail and eating the eggs and the moths themselves. The bird cleaned the tree and was busily engaged on another when the doctor

left. Upon examination he found that every nest had been cleaned. Bird students explain this by saying that the crust has been hiding a great deal of the bird's food, and he is getting what he can find elsewhere."

A Persistent Phœbe

For the past four years a pair of Phœbes has taken possession of a certain spring-house near here. The nest has yearly been destroyed, owing to its near proximity to a much-used path. I was, therefore, greatly surprised, on April 17, 1906, to see a pair building in the same old place. Two days later the nest was completed and contained one egg. The following day I planned to photograph the egg, but I found the rafter stripped of its dainty home.

On May 2, I again found them at work on a new nest where the first had formerly been, but this was likewise destroyed, and so also was a third the following week. Far from being discouraged, however, they began a new structure on the opposite side of the building which protruded into a small pond.

This was also torn down and left the poor birds once more without a home. I anxiously awaited to see what their next move would be. I am sorry to say they soon began a nest in the place where they had lost their first three homes. At first they were successful, and laid one egg: but, alas! this was also taken.

I thought they would give up and try somewhere else, but they went right to work and built a nest on the water-side of the spring-house, far out of reach. This, sixth and last, nest, I am glad to say, was not molested. It was started on June 10, and served as a home for the patient Phœbe's young ones.—L. S. PEARSON, *Wayne, Pa.*

An Unusual Nesting-Site of the American Long-eared Owl

It was in the spring of 1903 (April 13) that I came upon the nest of an American Long-eared Owl placed upon the ground underneath a couple of low, scraggy bushes. The locality in general was a bit of swampy ground, well fringed in by thickets of wil-

low and other water-loving species of shrubs, surrounded on two sides by woodland. Plenty of suitable nesting-sites were to be had in this wood for the asking, so there was no apparent reason for this pair departing so far from their usual habits of nesting in trees. In fact, a nest of the species had been, shortly before, discovered in a hollow limb of one of the trees.

The nest proper consisted simply of a few leaves and fine rootlets laid on the bare ground. No attempt at concealment other than that afforded by the surrounding shrubs had been made. Six eggs were present, oval in shape and pure white.

The female manifested great displeasure at my presence, and her peculiar notes, resembling the moaning meow of a cat, soon brought the male to the scene of action. Although the latter exhibited his annoyance at having his home matters broken in upon, by a sharp snapping of the beak, he was not nearly as determined in his efforts to frighten as the female. She would frequently fly so close to my head and with such a show of courage as to cause me to duck in some trepidation. Upon one occasion, when bending over the nest to secure a better view of its contents, she hissed loudly, accompanying the action with a fluttering movement of her wings and a general ruffling of the entire plumage.

During the period of my stay at the nest the birds kept within a circle of thirty feet. The female was on several occasions within easy reach.

Some few days later I revisited the nest in hopes of gaining a view of the young, but was disappointed to find the eggs broken and the nest abandoned.—A. D. FINKER, *Ann Arbor, Michigan*.

The Bartramian Sandpiper

I have been greatly astonished, in reading "Special Audubon Leaflet No. 6," on Bartram's Sandpiper, to find the statement made three times, that this bird is wholly insectivorous. In Nebraska, at least, like many other birds, it takes what comes most easily. After the wheat is cut, and during migration, it frequents the wheat stubble and gorges itself with the waste grain.

They become, naturally, very fat on this nourishing food. As I used to find them on the rye stubble, commonly in Connecticut, when I was a lad, I presume they were eating rye likewise, but it did not interest me then as now to observe the stomach contents.

All that is said in the 'Leaflet' regarding the confiding nature of these birds and their value in the landscape is perfectly correct. They used to be shot for market straight through the nesting season in Rock county, Nebraska. They should, however, certainly be well protected during the nesting season, and not more than one month be open, as is the case in some states with Quail and other useful birds. I think it highly probable that this liberty would be more beneficial here, and elsewhere, than absolute prohibition. Such is human nature.—J. M. BATES, *Red Cloud, Nebraska*.

Robins and Sparrows

For a number of years I have been an interested observer of the bird-life about my home, but not until last summer did I note that the English Sparrow had begun to trouble the Robins so much that the latter are now seen in fewer numbers than during past seasons. A large lawn near my home has long been the Robins' favorite feeding-place. Sometimes eight or ten of these birds might be seen, but this year (1906) they have almost deserted it, and it is rare to see more than two there at the same time. The cause of this is as follows: As soon as a Robin alights and begins to search for a worm, an English Sparrow will fly down and follow it closely. When the Robin pulls forth the worm the Sparrow rushes in, seizes it and flies off a few feet to swallow it. The Robin looks around in a bewildered sort of way but makes no attempt to recover the stolen morsel, and either goes to hunting again or flies away. Sometimes he has time to secure a worm before the Sparrow is back, but most often not. This performance is gone through with nearly every time a Robin visits the lawn, so that now they rarely visit the place where once they were so common.—C. M. ARNOLD, *Woonsocket, R. I.*

Book News and Reviews

THE WARBLERS OF NORTH AMERICA. By FRANK M. CHAPMAN, with the coöperation of other ornithologists, with 24 full-page colored plates by Louis Agassiz Fuyertes and Bruce Horsfall and 8 half-tones of nests and eggs. D. Appleton & Co., New York City. 8vo., 320 pages.

However jaded may be the palate of the weary bird-student who has swallowed the nature-books of the last few years, he will assuredly experience new and pleasant sensations on turning the pages of Mr. Chapman's latest contribution to his particular needs. It is a work valuable to the expert and indispensable to the amateur who would know all that there is to know about the life and surroundings of the Warblers of North America, so fitly called the "best gems of Nature's cabinet." It contains a wealth of biographical and other detail that is positively bewildering, but the arrangement is good and the volume well printed and of convenient size.

The plan of the work, which the author rightly hopes "adequately reflects existing knowledge of the North American *Mniotiltidæ*," is admirably carried out in every detail. Each of the fifty-five species and nineteen subspecies peculiar to the continent is treated separately, with a colored figure of each species. These plates, by Fuyertes and Horsfall, having already appeared in *BIRD-LORE*, need no commendation here. There are, in addition, a dozen new half-tones illustrating nests and eggs. An introduction of thirty-six pages is devoted to 'General Characters,' 'Plumage,' 'Distribution,' 'Migration,' 'Song,' 'Nesting Habits,' 'Food' and 'Mortality,' the remaining 301 covering the individual species. Under each of these will be found first, its 'Distinguishing Characters,' followed by 'General Distribution,' 'Summer Range,' 'Winter Range,' 'Spring Migration,' 'Fall Migration,' 'The Bird and its Haunts,' 'Song,' 'Nesting-Site,' 'Nest,' 'Eggs,' 'Nesting Dates' and 'Biographical References'—in short, nothing is lacking save the purely technical which would be out of place

in a volume of this kind. This brief outline of contents, however, gives very little idea of the valuable contributions to the life-histories of the birds which have flowed from the author's own pen or have been judiciously culled here and there from the writings of others. Indeed, our author has been so generous in crediting the contributions of others that he has, we think, too modestly put himself in the background while covering his retreat with quotation marks. There has also been much original matter contributed to the book; Professor Cooke's migration data and Mr. Gerald Thayer's description of songs and habits, being especially noteworthy.

Among the numerous praiseworthy features of the book may be noted the efforts to describe songs. Now, not for a moment should the current use of 'cheps' and 'zees' and even musical notation be discouraged; but it must not be forgotten that, at best, these symbols merely jog the memory of the individual who writes them in his note-book and mean nothing to ears that have not heard the original music. Inasmuch as most bird notes are far removed from human rendition, a sentence, such as "you must come to the woods, or you won't see me," which Mr. Chapman felicitously attributes to the Hooded Warbler, is quite as likely to rouse the memory echo as any jumble of meaningless syllables. We note, too, with regret, that the 'teacher' song of the Oven-bird is merely scotched. Any one who can put the accent on the first syllable certainly gets the cart before the horse.

The care in the descriptions of plumages and the elaborateness of the tables of migration data are also features deserving of especial mention, and there is a novel grouping of the Warblers according to their songs.

Belief in the stability of popular names receives a severe shock in the loss of our old friend, the Maryland Yellow-throat, that must now be known as the Northern Yellow-throat with a Latin name a foot long. We

could have spared the less familiar Connecticut Warbler or the Tennessee, but this is indeed too much for our equanimity. Cruel fashion deprives us of our birds, while a crueler science deprives us of the very names by which they might linger in our memories!

Some critics might take exception to the contents of that ornithological scrap-basket, the 'Hypothetical List' or object to *Oporornis* as a full genus, but such minor matters in no wise affect the general excellence of the work. It is one that reflects great credit on its author and will be nothing short of a boon to everybody who wants to learn the best of everything that is known about the North American Warblers.—J. D., JR.

BIRD-CRAFT. A Field Book of Two Hundred Song, Game and Water Birds. By MABEL OSGOOD WRIGHT. With eighty full-page plates by Louis Agassiz Fuertes. New York, The Macmillan Company, 1907. 12mo, 319 pages.

The contents of this standard book have long since passed with honor the examination of the reviewer, and we call attention to this new edition only to comment on the new dress with which 'Bird-Craft' celebrates its twelfth year. The text is printed on unglazed paper, adding greatly to the pleasure with which the book is read, while Mr. Fuertes' bird portraits ('drawing' is far too indefinite a term to apply to the characteristic work of this artist) are effectively reproduced as plates on the coated paper half-tone engravings require. The corners of the pages are rounded, the cover is flexible, and, in short, the book's makeup makes it closely conform to the requirements of its subtitle.—

F. M. C.

THE BIRDS OF AMHERST AND VICINITY. By HUBERT LYMAN CLARK. Second edition; revised and rewritten. Amherst, Mass., Press of Carpenter and Moorehouse, 1906. 12mo, 103 pages.

The original edition of this list, published in 1887, has been long out of print, and the present edition has been prepared to meet the demand which every authoritative, easily accessible, local list creates for itself. Ten species are added to the list of 1887, making 185 which are included in the present list. A 'Field Key' of twenty-one pages is a new

feature, while the 'Artificial Key' has been remodeled. Brief descriptions of plumage are included under each species, with the remarks on its local status, making it possible for the student to begin his study of Amherst birds with no other help than this book affords. The nomenclature is several years behind the times, but since the A. O. U. 'Check-list' now in preparation promises to make our current classification and nomenclature quite out-of-date, it is probably advisable to await its appearance and take the medicine at one dose.—F. M. C.

BIOLOGICAL CONDITIONS IN NEBRASKA. By R. H. WOLCOTT. Studies from the Zoological Laboratory of the University of Nebraska. No. 68. Lincoln, Neb. December 1906. Pp. 23-34.

Within a few pages Dr. Wolcott draws a clear and comprehensive picture of faunal conditions in Nebraska. The state is divided into a 'Missouri Wooded Region,' a 'Prairie Region,' a 'Sandhill Region,' a 'Plains Region' and a 'Pine-Woods Region' In other words, Nebraska is a true connecting link between eastern and western bird-life. In its eastern part many arboreal eastern birds find the western limit of their range, the avifauna of the plains is fully developed in its arid western portions, while the intrusion of wooded foothills in the north-western part of the state marks the eastern limits of the range of a number of western arboreal species. Small wonder, then, that 400 birds have been recorded from Nebraska,—a larger number, we believe, than has been found in any other state except California and Texas.—F. M. C.

The Ornithological Magazines

THE AUK.—There is much that is common-place in the January 'Auk,' for it can hardly be expected to furnish new thrills every quarter; still it is very pleasant for its readers to wade in fancy up to their waists, with Mr. C. G. Abbott, in the mud and water of the Newark marshes, and study at close range such denizens as the Florida Gallinule, Least Bittern, Pied-billed Grebe, and others whose presence so near great centers of population was hardly to have been suspected. Mr. C. W. Beebe's 'Notes

on the Early Life of Loon Chicks' is also instructive. He watched a pair of youngsters in the New York 'Zoo' and their habits, taken in connection with observations on other species, convince him that swimming, feeding, flight, call-notes and other phenomena are congenital instincts,—so away goes the pretty fable of the fond parents teaching their offspring to fly!

Mr. F. M. Chapman now tells us that the Maryland Yellow-throat did not originally come from Maryland, bravely slaughters his Florida form, *ignota*, on the altar of synonymy, and leaves us with two races east of the Rockies,—the Southern Yellow-throat, *trichas*, and the Northern Yellow-throat, *brachidactyla*, for which conclusions let us be profoundly thankful.

A fresh batch of Audubon-Baird letters are presented by Mr. R. Deane, and they contain many bits of information concerning birds and beasts of America as known fifty years ago.

There is a local list of the spring birds of Tishomingo county, Miss., by A. Allison, and one of those of Cobalt, Ontario, by F. C. Hubel. There is a strange lack in the latter of several species that must have been overlooked, and the form of Downy Woodpecker should be *medianus*, not "*pubescens*."

Mr. J. H. Fleming's accurate list of the birds of Toronto is completed in the present number. Two hundred and ninety species and subspecies are recorded from a somewhat limited area. Among 'General Notes' 'A Migration Disaster in Western Ontario' is worthy of special attention. Thousands of birds were drowned in Lake Huron, overtaken by the snow and cold of October 10, 1906. In closing, a review of the proceedings of the Twenty-fourth Congress of the A. O. U. may be noted, also an article by Dr. J. A. Allen on the status of the Rio Grande Seedeater.—J. D., JR.

THE CONDOR.—Two numbers of 'The Condor' have appeared since the last review in BIRD-LORE. The November number opens with the first part of Finley's 'Life History of the California Condor,' illustrated with photographs by Bohlman, which include some of the most remarkable pictures

of birds ever taken with a camera. The author has made a wonderful addition to our knowledge of the nesting habits and development of the young of this rapidly disappearing bird. Four other papers on habits of western birds also deserve mention. These are Bowles' account of 'The Kennicott Screech Owl'; Sharp's description of 'Nesting of the Red-bellied Hawk' in San Diego county, California; Miss Head's 'Observations of the Notes and Ways of Two Western Vireos' and Willett's note on 'The Southern California Clapper Rail Breeding on Fresh Water.' The editor reviews the status of the Hutton Vireo, recognizing three forms: *Vireo huttoni*, which is common west of the Sierras; *V. h. oberholseri* in San Diego county, and *V. mailliardorum* on Santa Cruz Island. An editorial on 'Better Vernacular Names' suggests a number of changes chiefly in the interests of utility, uniformity, and the substitution of English names now in common use for the 'book names' now applied to several species in the A. O. U. check list.

In the January number, the two leading articles are on the habits of the Magpie in Colorado. The first is by Warren, on 'Photographing Magpies,' and the other by Gilman, on 'Magpies on the La Plata.' Finley contributes an account of his work 'Among the Gulls on Klamath Lake,' in Southern Oregon in 1905. A good illustration of the opportunities for original observations even in localities supposed to be well known is given in Carriger and Pemberton's 'Nesting of the Pine Siskin in California.' In 1903 and 1904 the authors examined some 25 sets of eggs of this species in San Mateo and San Francisco counties. In view of the fact that this section has been the collecting ground of ornithologists for forty years or more, and was supposed to be as well-known as any part of the state, the record is as remarkable as it is interesting. Among the shorter notes is a record of the nesting of the English Sparrow at Newhall, Los Angeles county, May 19, 1906. This record marks the first entrance of the bird into southern California and indicates a decided advance in the distribution of the species in the Southwest.—T. S. P.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Published by THE MACMILLAN COMPANY

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

THE last issue of 'The Warbler' contains the unwelcome news that this publication has been discontinued. Mr. Childs has published some excellent material in this magazine, and we regret to see that his enterprise has not been accorded the support it deserves.

This makes the third journal wholly or in part devoted to birds, which has suspended publication within a year, 'The Warbler' being preceded by 'American Ornithology' and 'Our Animal Friends.' All merited a better fate; for we believe that they came to their end not through failure on the part of their editors to meet the demands of their readers.

Are we to infer, then, that the demise of these periodicals indicates a decreased interest in bird study on the part of the public to which they catered? Personally, we should not hesitate to reply to this question with an emphatic "No," and we base our answer on the experiences of an unusually active lecture season which has brought us in contact with the bird-loving public in many and widely separated districts, on our knowledge of the sales of bird books, and on the ever-widening field of Audubon educational work.

Why, then, have the magazines mentioned been forced to suspend publication? Doubtless they have not been "forced" to suspend, but probably they have been discontinued because they have not met with the success their originators anticipated.

Their failure is not to be attributed to loss

of interest on the part of the public, but rather to the fact that no ornithological magazine has ever secured a circulation large enough to assure it the patronage of advertisers, and without advertising the most prosperous magazine of the day could not exist as a profitable proposition.

Whether a sufficient number of possible subscribers exist to make a bird magazine profitable, from a commercial point of view, is open to question, but assuredly the means has not as yet been devised for bringing such a magazine to their attention. General advertising scores too many misses for each hit made to make it profitable. Circulars rarely seem to reach the mark, and if the publisher cannot secure the coöperation of his readers, he may be assured a handsome deficit at the end of the year.

THE Audubon education work to which reference was made above is destined to exert an influence which only those intimately concerned with its development appreciate. When Mr. Willcox endowed the National Association of Audubon Societies, bird-lovers doubtless thought of the numerous practical ways in which the resulting income could be employed to protect birds, but few doubtless realize the far-reaching influence the expenditure of a portion of this income for free Educational Leaflets will have on the future of North American ornithology. As long as this sum will supply the demand, no teacher or pupil need lack first-class bird literature, and the thousands and hundreds of thousands of these little monographs, with their attractively colored plates should reach, an audience forever deaf to the publisher who has profit in mind.

A WORD of explanation for the unfortunate delay in the appearance of 'The Warbler Book' is due the many inquirers who were led to expect its publication in February. Its tardiness is due to that 'congestion of trade' of which we hear so much in other branches of commerce. Paper that had been promised early in January was not delivered a month later and, as a result, the efforts of author and printer to be prompt, went for naught.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

APRIL

April is the dawn of the natural year. March is a spring month merely by courtesy—a sort of delusive “twilight,” as Wilson Flagg said of it—through which familiar shapes flit, appearing and disappearing like wind-blown phantoms. March may respond to the sudden lure of the south wind and, yielding a little, show us a few hepaticas on a sheltered bank, a trembling group of snowdrops in a garden corner, or the raised cowl of the skunk-cabbage in the still ice-edged marsh. The flocks of Robins, Bluebirds and Fox Sparrows may bring melody to the leafless trees, while the Meadow-lark returns to the lowland pastures in company with his squeaking and creaking cousins, the Grackles, Redwings and Cowbirds, and the Phoebe vies with the Chickadee in telling his name about the sheds and outbuildings. Or March may mean that the hope born of the lengthened days is deferred by snow-squalls that check both insect and vegetable life and drive the early birds disconsolately to mope in cover.

But with April all is different. To be sure, the old fields lie sere and brown for the greater part of the month, edged and threaded here and there by green ribbons born of watercourses, while on hillside and open woodlands the verdure is of moss rather than grass; yet everywhere the change quivers on the air, and the cheerful chorus of the *hulas* rises from the reed-beds and makes the heart beat faster. For after all, northward from the middle part of the country, it is by sounds rather than by sight that the season takes possession of the senses and makes us realize that it has come. It is by the bird and not by leaf or flower that Spring first proclaims herself; the flower lies next to the heart of earth, and one would think should be the first to feel the pulse of renewal; but no, it is to the bird of the air that the vision below the visible horizon belongs and, as if seeing the glow of the spring sun before it has reached us, the birds arrive as heralds to proclaim it.

Already, when April comes, the Woodcock is practicing his sky dance, and a snow flurry during the first half of the month may whiten the back of his mate brooding on her nest among the protecting leaves with which her colors blend. In April two bird families send their members with a rush. The flocks of Fox Sparrows increase and pause on their northerly migration. The White-throats, traveling in still more leisurely fashion, pause

wherever there are seeded weeds and grasses, and mingle their exquisite little piping song with that of the Purple Finch and Vesper Sparrows; while the Song Sparrow, that was perhaps present as an individual all winter, becomes legion in a single night, and presently the tremolo of the Chipping Sparrow, insectlike though of different quality, sounds at dawn from the ground or a low bush where he sits with head thrown back in rapture.

In April, toward the middle of the month, the Swallows return to us, with their pretty call notes and lispings, and the ear and eye are often piqued by the voices and plumage of many Warblers. The Myrtle, that has been with us at intervals all winter, is easily named; then there comes the Pine Warbler and the Louisiana Water-Thrush, a Warbler that suggests the larger Wood Thrush. The Black-throated Green and the Black and White Creeping Warblers, the latter mistaken frequently by the novice for a diminutive Woodpecker, may be expected, and, should the last week in April be fair and the leaves of the birches and swamp maples old enough to throw a faint shadow, in reply to the golden signal of the willows, we may prepare to welcome deputations from the families of Thrushes, Wrens and Thrashers, the Wood-Thrush, Catbird, Brown Thrasher and House Wren; and when we see the latter tip-tilting and scolding about the repairs necessary to his last year's residence, we know that spring, in all its promise and fullness, is but lingering around the corner, coyly arranging her drapery before dancing into our sight.—M. O. W.

NATURE STUDY ORGANIZATIONS

The value of nature study, *properly conducted*, as a training to the powers of observation has long been conceded; moreover, its direct value in teaching the true economic relations to man of objects animate and inanimate is well established. The more we study nature the better we learn that part of nature's balance which best conserves human interests. Such studies have enabled us to distinguish between friends and enemies among the lower creatures; to realize how the former are beneficial and the latter harmful.

It must be conceded, also, that "in union there is strength"; that properly conducted organizations for the study and preservation of the lower forms of life accomplish more than scattered individual effort.

Admitting all this, conscientious teachers are anxious to provide for the nature-study needs of the pupils under their charge, but they sometimes are at a loss to create that interest which must underlie all successful educational work. The writer belongs to a natural history society which is remarkable because of its success in maintaining deep interest among its members, and the consequent good attendance at meetings, two things unfortunately rare in such organizations.

He also has had the privilege of attending, by invitation, a meeting of a bird club composed of boys of a New Jersey school, and he was expected to offer suggestions about the management of the club and its method of conducting meetings; but, after critically noting the methods employed, he could make no suggestions for their improvement.

There are certain features in the management of these two organizations which so obviously contribute to their remarkable success that they are here used as examples, in the hope that other organizations may derive from them hints that will lead to a like measure of success.

The natural history clubs above referred to have the usual officers, which are elected annually; meetings are held twice a month, and are presided over by the president, or, in his absence, by the vice-president or some member temporarily selected; the secretary keeps the minutes, which must be read and approved at a subsequent meeting; the dues are \$1 per year.

Occasionally a member gives a stereopticon talk or some other special program, but the usual order is to pass briefly through the routine business, roll-call, reading minutes of last meeting, election of members proposed at last meeting, proposal of new members, unfinished business, new business. Then comes "items of interest," under which head the president calls on each member in turn for any matter of interest he may have to relate, and general discussion of such items takes place. In a membership almost entirely amateur it is surprising what an amount of interesting and valuable information is brought out, and the discussion is so informal that there is no atmosphere of undue stiffness or restraint. Following the items of interest, all of the members exhibit specimens, rare or common, many being of the simplest form, yet all are of interest to those present.

The boys' bird club referred to is nearly ideal and will continue to be so while its original methods are adhered to. The ages of the members range from twelve to sixteen years; there are the usual officers and parliamentary methods of conducting meetings; the educational leaflets of the National Association of Audubon Societies are used as a basis of study. A leaflet is allotted to each member to study and report on, three or four members at each meeting reading essays on as many different birds, studied from the leaflet, from any other accessible source, and as far as possible from original observations. In these essays, quotations are given from authorities, with remarks on the quoted statements from the experience of the boy observer, much of the matter given being entirely original.

Prizes are given for the best essay during a given period.

Another feature is the reading, by each member, of a list of the birds observed since the last meeting, and prizes are given for the best lists made during a given period. A few of the boys have cameras and photograph bird life, and here again prizes reward the greatest measures of success.

The boys are careful in their photographing not to harm or disturb the birds; they aim to be very accurate in preparing lists, and they never collect birds or eggs, but only nests after the birds have left them. The meetings are held in the evening, twice a month, at the school. They have field days, when they go out Saturday in small parties to find nests and record observations. They are always careful never to remain long in the vicinity of a nest. While a teacher fosters the club, the management is entirely with the boys.

Here is the problem of nature study solved; study and work are made play; no time is lost from other essential studies; powers of observation are developed; healthful recreation is had; there is practice in parliamentary methods of conducting meetings; information is acquired which in the future life of the students will benefit them in a thousand practical ways; and all the time the direction of their diversion, recreation and surplus energy is turned into safe and improving channels and away from the innumerable temptations that beset boys. The writer has yet to hear of the boy who earnestly and conscientiously studied nature who became a bad man.

The success of these two organizations is due to the way in which their programs are made attractive. The same secret applies to man as well as boy. Put an attractive program before the members, let them manage, suggest, discuss, and, above all, *observe* and report their observations and leave the success to them. They will take care of that part, and nature study can be conducted not only without interfering with, but to the advantage of all other practical studies—B. S. BOWDISH.

THE VALUE OF BLACKBIRDS

"Kalm states, in his 'Travels in America,' that in 1749, after a great destruction among the Crows and Blackbirds for a legal reward of three pence per dozen, the northern states experienced a complete loss of their grass and grain crops. The colonists were obliged to import hay from England to feed their cattle. The greatest losses from the ravages of the Rocky Mountain locust were coincident with, or followed soon after, the destruction by the people of countless thousands of Blackbirds, Prairie Chickens, Quail, Upland Plover, Curlew, and other birds. This coincidence seems significant, at least. A farmer from Wisconsin informed me that, the Blackbirds in his vicinity having been killed off, the white grubs increased in number and destroyed the grass roots, so that he lost four hundred dollars in one year from this cause."—FORBUSH, 'Useful Birds and their Protection.'



RED-WINGED BLACKBIRD

(UPPER FIGURE, MALE; LOWER FIGURE, FEMALE)

Order—PASSERES
Genus—AGELAIUS

Family—ICTERIDÆ
Species—PHENICEUS

THE RED-WINGED BLACKBIRD

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 25

"Among all the birds that return to us in April, which is the most striking and most compels attention?" asked a bird-lover of a group of kindred spirits.

"The Fox Sparrow," said one who lived on the edge of a village where sheltered wild fields stretched up hill to the woodlands. "Every morning when I open my window I can hear them almost without listening."

"The Phoebe," said another, who was the owner of a pretty home, where many rambling sheds broke the way from cow-barn to pasture.

"The Whippoorwill," answered a third, a dweller in a remote colony of artists in a picturesque spot of cleared woodland, where the ground dropped quickly to a stream.

"No, the Woodcock," said her nearest neighbor, a man whose cottage was upon the upper edge of these same woods, where they were margined by moist meadows and soft bottomlands—a man who spent much time out-of-doors at dawn and twilight studying sky effects.

"And I think it's Red-winged Blackbirds," cried the ten-year-old son of the latter; "for when I go out up back of the trout brook by the little path along the alders near the squashy place where the cattails grow in summer, you've just got to hear them. You can't listen to them as you do to real singing birds, for they make too much noise, and when you listen for a bird it's got to be still at least in the beginning. Sometimes they go it all together down in the bushes out of sight, then a few will walk out up to the dry Meadowlark's field with Cowbirds, or maybe it's their wives, and then one or two will lift up and shoot over the marsh back again, calling out just like juicy sky-rockets. Ah, they're it in April before the leaves come out." And, in spite of difference of viewpoint, the group finally acknowledged that the boy was right.

In point of coloring the Redwing is faultlessly plumed—
The Redwing's
Personality glossy black with epaulets of scarlet edged with gold—the uniform of a soldier, and this, coupled with the three martial notes that serve him as a song, would make one expect to find in him all the manly and military virtues. But aside from the superficial matter of personal appearance, the Redwing is lacking in many of the qualities that endear the feathered tribe to us and make us judge them, perhaps too much by human standards.

When Redwings live in colonies it is often difficult to estimate the exact

relationship existing between the members, though it is apparent that the sober brown, striped females outnumber the males; but in places where the birds are uncommon and only one or two male birds can be found, it is easily seen that the household of the male consists of from three to five nests each presided over by a watchful female, and when danger arises this feathered Mormon shows equal anxiety for each nest, and circles screaming about the general location. In colony life the males oftentimes act in concert as a general guard, being diverted oftentimes from the main issue, it must be confessed, to indulge in duels and pitched battles among themselves.

The Redwing belongs to a notable family—that of the **His Family** Blackbirds and Orioles—and, in spite of the structural similarities that group them together, the differences of plumage, voice and breeding habits are very great.

The Cowbird, the Redwing's next of kin, even lacks the rich liquid call note of the latter and the lack of marital fidelity on the part of the male is met in a truly progressive spirit by the female, who, shirking all domestic responsibility, drops her eggs craftily in the nests of other and usually smaller birds, who can not easily resent the imposition. Though a strong proof of the unconscious affinity of race lies in the fact that these young founding Cowbirds invariably join the parent flocks in autumn instead of continuing with their foster mothers.

The Meadowlark with the true spring song, who hides his nest in the dry grass of old fields, is also kin to the Redwing and the Bobolink too, the vocal harlequin of the meadows and hillside pastures. The Orchard and Baltimore Orioles, also next of kin, are skilled musicians and model husbands.

Still another plane is to be found in the Redwing's dismal cousins, the Grackles—Purple, Rusty, Bronzed and Boat-tailed—all harsh of voice and furtive in action, as if a Crow fairy had been present at their creating and, endowing them with ready wits, had, at the same time, deprived them of all sense of humor and cast a shadow upon their happiness. For a Grackle is gloomy, even during the absurd gyrations of his courtship, and when, in autumn, the great flocks settle on lawns and fields and solemnly walk about, as they forage they seem like a party of feathered mutes waiting to attend the funeral of the year; and this trait somewhat tinctures the disposition of the Redwing before and after the breeding season.

The Redwing, in one of his many subspecific forms, and **His Country** masquerading under many names,—Red-shouldered Blackbird, American Starling and Swamp Blackbird,—lives in North America from Nova Scotia and Great Slave Lake southward to Costa Rica. The Redwing, as known to us of middle and eastern North America, breeds in all parts of its United States and Canadian range, though it is more numerous by far in the great prairies of the upper Mississippi valley, with their countless backwater sloughs, than anywhere else. It is in regions of

this sort that the great flocks turn both to the fall-sown grain, as well as that of the crop in the ear, causing the farmers the loss that puts a black mark against the Redwings. Yet those that dwell east of this area, owing to the draining and ditching of their swampy haunts being in much reduced numbers, are comparatively harmless.

During the winter months the Redwings are distributed throughout the South, though stragglers may be occasionally seen in many parts of their summer range. Exactly why they begin the southward migration in September and end it with the falling of the leaves in late October, it is not easy to guess; for the food-supply is not



NEST OF RED-WINGED BLACKBIRD

Photographed from nature by C. G. Abbott

at an end and they do not dread moderate cold, else why should they be in the front rank of spring migrants?

The last of February will bring a few individuals of the advance guard of males. In early March their calls are heard often before the ice has melted and the hylas found voice; yet, in spite of this hurried return, the nesting season does not begin until the middle of May; and so for two months and more the flock life continues, and foraging, fighting and general court-ing serve to kill time until the remote marshes show enough green drapery to hide the nests.

His Nest As a nest-builder the Redwing shows much of the weaver's skill of its Oriole cousins, though the material they works with is of coarser texture, being fastened firmly to low bushes or reeds and woven of grass and the split leaves of reeds and flags, all nicely lined with soft grasses and various vegetable fibers. Often, like that of the Marsh Wren, the nest will be suspended between three or four reeds and so firmly knit that it resembles one of the four-legged work-baskets that belonged to the 'mother's room' of our youth. The pale blue eggs of the Redwing are particularly noticeable from the character of the markings that thickly cover the larger end, for they seem the work of a sharp scratching pen dipped in purplish black ink and held by an aimless human hand, rather than the distribution of natural pigment.

His Food An eater of grain though the Redwing is, and a menace to the farmer in certain regions, Professor Beal concedes to him a liberal diet of weed seeds and animal food, itself injurious to vegetation. Dr. B. H. Warren, who has made a wide study of the food habits of this Blackbird, says: "The Redwing destroys large numbers of 'cutworms.' I have taken from the stomach of a single swamp Blackbird as many as twenty-eight 'cutworms.' In addition to the insects, etc., mentioned above, these birds also, during their residence with us, feed on earth-worms, grasshoppers, crickets, plant-lice and various larvæ, so destructive at times in the field and garden. During the summer season, fruits of the blackberry, raspberry, wild strawberry and wild cherry are eaten to a more or less extent. The young, while under parental care, are fed exclusively on an insect diet." These facts should make us of the East welcome rather than discourage the Redwing; for this is one of the species of familiar birds that must become extinct in many localities, owing to the circumstance so desirable in itself of reducing the waste marsh lands, and, though later in the year other birds replace him acceptably, March and April would seem lonely without the Redwing, for then, as the child said, "You've just *got* to look at him."

Questions for Teachers and Students

Are there other species of Redwing than the one pictured? Trace its distribution. How far north does it breed? At what season does it leave for the South in autumn? When does the spring migration begin? What sort of country does the Redwing inhabit, high or low ground? Does it nest immediately on its return? Where is the nest built and of what materials? Do Redwings mate in pairs like Robins and Bluebirds? Are the males and females feathered alike? What color are the eggs? To what family does the Redwing belong? Name some of his kindred.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Membership in the National Association

- \$5.00 paid annually constitutes a person a Sustaining Member
- \$100.00 paid at one time constitutes a Life Membership
- \$1,000.00 paid constitutes a person a Patron
- \$5,000.00 paid constitutes a person a Founder
- \$25,000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York,

Legislation

This issue of BIRD-LORE might well be called the legislative number, as all of the matter in the Executive Department will relate only to legislative proceedings throughout the country.

While much of the story will show that the Association has been successful in many of its attempts for better legislation and the defeat of bad legislation, yet, unfortunately, in some important cases the forces that have combined against us have been successful. In the entire experience of the President of the Association in legislative work, the year 1907 surpasses all the others in the number of bird and game bills that have been introduced; they certainly number several hundred. It is true that many of them are local bills of little importance, but, on the other hand, many of them seem to have emanated from market-hunters and game dealers who are becoming very restive under the pressure of restricted opportunities for killing and selling the fast-disappearing game birds and animals of the country.

Our great benefactor, Mr. Willcox,

"buidled far better than he knew" when his love for wild life led him to leave to this Association a substantial legacy. If the National Association had not been placed in its present strong position through this benefaction, it would not have been able to carry on the enormous amount of legislative work that it has done during the present legislative season. Heretofore, it was only after the most careful consideration and under the most urgent stress of circumstances that money could be appropriated for legislative work, but this year we have had able and energetic representatives doing missionary work at a number of capitals.

The detailed story of legislative work which follows will show to the members of the Association and the readers of BIRD-LORE how important this branch of our work is.

Congress and the Biological Survey

While the story of how the House Committee on Agriculture attempted to end the existence of this valuable and important Bureau is familiar to many of the members of the Association, because they took an active and prominent part in continuing the Survey, yet to others this episode will be entirely new; further, it is well to place such matters on permanent record.

When the agricultural appropriation bill was reported in Congress by the committee in charge, it was discovered that no appropriation whatever had been made for the Bureau of Biological Survey. This meant that this important and necessary Bureau would be legislated out of existence, which would have been such a serious handicap and loss to the work of the National Association that it would have taken years to have overcome the setback. There was only one

thing to do, and that was for the National Association and the State Audubon Societies and the real sportsmen of the country to rally to the work of saving the Survey.

The first week after the matter was discovered was a busy time at the Association headquarters. The mails were entirely too slow, and whole letters were sent by wire to all parts of the country, asking for help in this emergency. Our lecturers and organizers were taken from their legitimate work and were detailed to help save the Biological Survey. The importance of this Survey to the Association can hardly be realized, unless one is actively connected with the work at headquarters. To the Biological Survey we turn for all data regarding the food habits of birds and their relations to agriculture that are used, and in addition, whenever the Association is advocating a legislative bill relating to game or non-game birds, the Bureau of Biological Survey is appealed to for an expert to appear at hearings. To the Bureau also we turn for publications, relative to birds and game, for distribution to help in the educational campaign the Association is always carrying on.

Who instigated the outrageous attack on the Bureau of Biological Survey is hard to discover, but when we recall the work done by the members of the House Agricultural Committee in 1906, in the matter of the meat-packing bill, it suggests the thought that the same interests, through the same channels, sought to cripple the work of game protection and to remove a factor that is doing so much to stop the sale and cold storage of game.

The Senate of the United States insisted that the Survey be continued, and forced the House into a compliance with its wishes; thus reflecting the wishes of every person in the United States interested in the preservation of its wild life.

The Bureau of Biological Survey was continued with the same meager appropriation that it had last year. This appropriation is so small that it does not permit the Bureau to carry on its valuable work with a force of scientists that it should be able to employ.

The National Association and the real sportsmen of the country are struggling at the present time with the subject of the preservation of the water game-birds of the country, and the Survey is unable to give us any data as yet regarding the food habits of this class of birds, simply because they have never yet been in a position to make these important investigations. It is extremely desirable and vitally important that the food of the shoal water-ducks and the shore-birds of the country should be determined at once; there is little doubt but that it will be discovered that these two classes of birds destroy enormous numbers of noxious insects whose larval stages are passed in water, but the proofs are needed.

MAINE —Our representative in Maine, Mr. Arthur H. Norton, some time since sent us a copy of a petition that had been sent to the legislature of his state by eighty-three persons, residents in the township of Lubec, and another petition from nineteen persons in the township of Trescott, both of which towns are in Washington county, in the extreme eastern part of the state. The petition prayed for an amendment to Section 8 of Chapter 32 of the Revised Statutes by adding after the word "caught" in the fourth line the words "but this shall not apply to the shooting of Gulls by the owners of land or those having lawful possession thereof in the towns of Lubec and Trescott and Whiting in Washington county, while said Gulls are in the act of taking or menacing to take fish exposed for drying purposes or fish refuse or pumice spread upon said land for manure or fertilizer."

This Association and its predecessor, the Thayer Fund, spent several thousands of dollars in protecting the Gulls of Maine. There is no part of the United States at the present time where Gulls are not considered as non-game birds of beneficial character and are not protected by the model law.

There was but one thing to do, which was to send an ornithologist to make an investigation of the damage claimed to have been done by the Gulls and also to investigate the character of the persons who petitioned. The Honorable James Carroll Mead was

selected; he was the member of the Assembly who introduced and successfully carried to adoption the model law in his state in 1902. Mr. Mead's report is an interesting one, and shows how little foundation there was for the petition. As a matter of record, the report is given in full:

"Of the eighty-three names on the Lubec and Trescott petition, I find but nineteen are in any degree farmers. One man is dead, four unknown, and the balance are business men, mechanics, boatmen, laborers, etc. I have personally interviewed fourteen of the farmers, as well as several farmers who were not petitioners, and the results are almost confusing. I find no one making complaints against the Gulls except for the practice of feeding on the fish cuttings, or 'Scoots,' when spread on the land, and they claim to be damaged annually from 10 per cent to 75 per cent of the cost of the spread fish. Several men have assured me that it sometimes happens that while a man is at the factory for a load, the Gulls will devour a load already spread. The worst damage they claim is done after the weather grows cool in the fall; early in the season (a few men say until the middle of September in ordinary years) the 'Scoots' spread decay rapidly and the damage to them by Gulls is not worthy of consideration. Those pushing the bill strongest insist that June and July are the only months that they are free from the depredations. Some admit that December, or the fall of snow, ends all trouble, while others just as strongly insist that the danger on exposed, billy farms, is equally great all winter, inasmuch as the late-spread fish, especially those kept some time in pickle, remain intact all winter, unless eaten by Gulls. For potatoes, grain, etc., the 'Scoots' are plowed in and the injury done is not worthy of consideration. It is only when spread as a top-dressing for grass land that the Gulls are attracted. The farmers commence haying in July, but I judge late in the month; right after this, and until winter, they do their fertilizing. The 'Scoots' in July are often given away by the packers in order to get rid of them, but later sell for from 75 cents to \$1.50 per load of ten or fifteen barrels' capacity, and are

usually spread at the rate of two or three loads per acre. I found two farmers who said they protected their fields with dogs. Another man has a piece of boiler iron near his house on which his children pound with a hammer and so frighten away the birds for an hour at a time. Another man says he can frighten them from his fields by pounding his barn with a board, but he added that 'pounding a barn with a board wouldn't earn a living in Lubec.' One man, Walter Myers, thought the Gulls a damage to him as a farmer, but a help to him as a fisherman, inasmuch as they kept his weir and the shore free from dead fish."

From the above report, it will be seen that the greater part of the damage claimed is in the late fall and winter months, at which time there certainly can be very few Gulls left in the state of Maine, as the great body of them have migrated further south.

A copy of this petition was sent to our warden, Captain Fred. E. Small, in charge of Old Man Island, Me., which is not very far from Lubec, asking his opinion of the merits of the complaint, and he replied as follows:

"I have heard some few complaints made by farmers against Herring Gulls eating the herring off their fields, but most of them make an image of a man and put in the field, which keeps the Gulls away. In regard to their eating codfish or herring left on boards to dry, there is no truth in such reports. This is called the principal fishing locality in Maine, and I have been in the business myself and know what I am talking about; my opinion in regard to these reports is that the petitioners are planning to make a business of killing Gulls for market."

Mr. Norton and Mr. Mead appeared at the legislative hearing on the petition and submitted all the facts gathered, and made an appeal to the committee not to report the amendment favorably. This appeal was successful, and the Fish and Game Committee reported adversely.

This Association does not take the stand, nor has it ever advocated the protection of birds when it is conclusively proven that they are doing more damage than good; at

the same time, the Executive of the Association never has, nor will it ever consent to any amendment of a wise law on a complaint, until the reasons back of the same and all of the facts have been thoroughly investigated. We have never yet found a case where such a petition was not founded upon prejudice or ignorance. It is only another instance showing the value of and necessity for thoroughly organized work, such as is being carried on by the National Association.

There is a petition before the legislature of Maine to make the open season on Ducks in the county of Lincoln extended to April 1. This is being combated, as there are two reasons why it should not be adopted; first, because it is the trend of public opinion at the present time among the best class of citizens to prohibit all spring shooting; and second, because it is unwise in a state of the size of Maine, where the conditions are practically the same in every part of the territory, to have different open seasons. The game law should be general and apply to the entire state.

A petition is also before the legislature to make a close season of five years on the Wood Duck and the Buffle-head Duck, commonly called "Dipper." The reason given in the petition is an exceedingly wise one.

"We urge the protection of the Wood Duck and Buffle-head, because they are at present so exceedingly rare as to afford practically no sport or food supply, and we believe, unless rigid protection is afforded them, it will be only a short time before both varieties are absolutely extinct." Such an intelligent appreciation of present conditions deserves the highest commendation and approval.

Another petition: "No person shall at any time, hunt, trap, catch, kill, destroy or have in possession any Moose, Deer, Caribou or any game or fur-bearing animals of any description, within a radius of ten miles from the highest point of Mount Katahdin, known as the south monument, believing that the best interests of the state require this to be done."

The above is an exceedingly meritorious

measure, and, if adopted by the legislature, will establish a game refuge in one of the most beautiful and interesting parts of Maine.

NEW HAMPSHIRE.—A bill to amend the Fish and Game law of this state was introduced and has been passed. In some respects the bill makes important improvements; for instance, it makes the close season on the shore-birds and Ducks from January 31, which practically stops spring shooting, as none or but very few of these birds are found in the state during the month of January.

A second bill, making a five years close season on the Wood Duck, Killdeer Plover and Bartramian Sandpiper, commonly known as the "Upland Plover," was introduced and has been adopted. This is the first state to adopt the recommendation made by the American Ornithologists' Union at its last annual meeting.

MASSACHUSETTS.—Out of the mass of bill that were presented to the legislature for and against bird and game protection, the following important measures are of interest to this Association:

An act for the protection of Loons and Eagles; this was adopted.

An act to protect the Herring and Great Black-back Gulls; this was adopted. By the passage of this act protection is now given to all the Gulls in every part of the United States. The privilege to kill these two species of Gulls in Massachusetts was the only gap in a perfect series of laws in the entire country.

This is one of the results of the work of the "Thayer Fund" and the National Association during the last seven years. When the plume-hunters commenced their onslaught against the larger Gulls in 1900, it was found that in many states there were no laws protecting these birds.

Two bills regarding spring wild-fowl shooting were introduced, one making the close season on certain species of wild fowl commence March 1, and another January 1.

Neither of these bills received favorable consideration. This is unfortunate, because

it is absolutely necessary that the spring shooting of wild fowl should cease in North America. There is need for educational work in this connection in Massachusetts; but with the love of birds and the intelligence of the people of that state, there is practically no doubt that, when the matter is properly brought to the attention of the public, laws shortening the open season for wild fowl will be adopted by a future legislature.

A bill to make an open season on the Sabbath Day was very properly defeated. Without considering the question of respect for the Sabbath Day, it is always well to make a close season of at least one day in the seven, even during the season when shooting is lawful.

CONNECTICUT.—In this state, bills have been introduced to make the close season for Ducks and shore-birds commence January 1. A great deal of educational work is being done, and it is hoped that the bills will be considered favorably, although there is considerable opposition developing from the shore towns of the state, because the market hunters do not desire their special privileges curtailed. It is a fact that the only opposition that is ever found in any part of the country to the passage of bills stopping spring shooting, comes from the restricted class of persons who shoot for market or who sell game. The great majority of the people of every state advocate laws that conserve the wild life of the country for future generations; all intelligent people hope to prevent conditions that will lead to another story like that of the Wild Pigeon and the bison.

NEW YORK.—In the president's last annual report, he called the attention of the citizens of this state to the very wicked provision in the game laws, which permits the sale of wild fowl sixty days after the close season commences. This provision renders the January 1 wild-fowl law nugatory and practically of no effect. There is a further provision in the New York law which permits the placing in bond of surplus game which is on hand at the end

of the close or sale season, to be held until the next open season.

Bills to remedy this marked defect in the game law of this state were introduced; that is, for the purpose of stopping the sale of wild fowl after the 10th day of January; in other words, giving the dealers ten days in which to get rid of their surplus stock and also to stop the cold storage of any kind of birds or game.

A hearing was held on both of these bills on the 19th of February before the Assembly Fish and Game Committee. The Audubon interests were represented by your president; two other Game Protective Associations were ably represented, and the only opposition to the bill came from the Poultry and Game Dealers' Association of New York, which was represented by a paid attorney.

It was thought that those in favor of the two bills had proved conclusively to the Assembly Fish and Game Committee that these bills were meritorious and necessary, and that they should be favorably reported. The only claim that the attorney of the Game Dealers' Association made was that the bills interfered with vested rights and the interests of his clients who were legitimate dealers in game. Further, he claimed that they did not sell New York State Ducks, but received all of their supplies from other states. In rebuttal, it was shown that many of the states prevented the export of wild fowl and other game and therefore the New York dealers must necessarily be selling goods illegally obtained.

For some reason which it is hard to learn or understand, these bills have not been reported out of the committee, although the chairman has been personally urged to give them favorable consideration and let the fight for the bills be made on the floor of the House; it is believed that the sentiment of the state is so strong for the passage of these bills that the Assembly will pass them. At this writing an appeal is being sent broadcast throughout the state, asking the citizens to insist that the above bills should be reported by the committee.

NEW JERSEY.—An anti-spring shooting bill for wild fowl and shore-birds have been

introduced, together with a Hunter's License Bill. A joint hearing before the Game Committees of both Houses was held, and it is an interesting fact that not a voice was heard at the hearing in opposition to them. Both of these bills have passed the Assembly and are now before the Senate for action. It is with great pleasure that we call the attention of the citizens of New Jersey to the speeches made in behalf of the anti-spring shooting bill, and also for the most advanced bird and game protection by Assemblymen Crowther, of Middlesex; Fake, of Bergen, and Hahn, of Essex.

SOUTH CAROLINA.—A bill incorporating the Audubon Society of South Carolina was passed by the legislature. This law is exactly like the one in North Carolina, and gives the Audubon Society of the state all the powers and duties of a game commission.

Secretary Pearson will spend a large part of April in organizing and starting the new organization, so that the same efficient game and bird protection may be had in South Carolina that has obtained in North Carolina since the Audubon Society of that state was vested with its present powers.

How necessary it is to have an organization to enforce the bird and game laws of South Carolina will be shown by a quotation from a letter recently received from Sumter:

"About February 21 the first Robins made their appearance in this vicinity, and almost immediately a wholesale slaughter began. Boys just large enough to hold a gun (many with slingshots), men and *even women*, all joined in the 'sport.' You can hardly look out on the streets that you do not see some one passing with a string of a dozen or more birds. They seem to vie with each other to see who can kill the most. Only last evening, the gentleman with whose family we board came in after only a few hours' gunning with a bag of Robins. You think, when every one, almost, that you meet is bent upon the self-same errand, that it is a wonder there are any Robins left to continue the journey northward.

"There is a splendidly organized Civic League here, and I have thought that pos-

sibly they might take the matter up, if it were placed before them in the proper light. I spoke to one of the members the other day, and she promised to mention the matter at the next meeting. Can you not send each of them one of your leaflets on the subject?"

"This is the heart of the cotton-growing industry of South Carolina, and I believe that if the subject were placed in the hands of a few of the leading men, something might come from it."

ALABAMA.—The bill spoken of in the January number of BIRD-LORE passed both branches of the legislature and was signed by the Governor, and it is now a law in this state. It is without doubt the most advanced and drastic game law now in force in the country. By appointment of the Governor, the Honorable John H. Wallace, Jr., has been made the Game Commissioner of the state, and this means that the new law will be enforced, for he is a most ardent protector and has a very high conception of the value of birds to agriculture, and also that they are one of the assets of a state and should be conserved in every possible way.

PENNSYLVANIA.—A very radical retrograde step has been taken in this state, and it is understood that the legislation was approved by the Fish and Game Commission. A bill was introduced and has been passed by both branches of the legislature to repeal the anti-spring-shooting law. It has been stated that this will not result in the killing of more than ten thousand Ducks in the spring, but when we consider that that means that there will be at least a shortage of sixty thousand Ducks in the following fall, the offspring of those killed in the spring, there is no question whatever regarding the great wrong that has been done the wild fowl.

WEST VIRGINIA.—This state has just adopted by a practically unanimous vote of both branches of the legislature the model law. Senator Hazlett introduced the bill and successfully accomplished its passage. The bird-lovers of the state are under great obligations to him for his public spirit and his high appreciation of good civics.

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DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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No. 3

A Sketch of the Thrushes of North America

By JONATHAN DWIGHT, Jr., M. D.

DAINTY of plumage and musical of voice, the Thrushes of North America are perhaps the most delightful members of the great bird population that spreads northward over the continent in spring, to retreat far southward again in autumn before the snow and ice of a northern winter. Five species inhabit our country, all of them abundant, but so silently do they accomplish their long migratory journeys, slipping along in undergrowth and hedge-rows by day and winging their way far up in the quiet sky by night, that, except for flashes of wings in the woods or mellow calls borne on the night air, their presence may easily be overlooked until they have settled for the brief summer in their breeding haunts. Then truly it may be said that they "waste their sweetness on the desert air," for two of them, the Hermit and the Olive-backed, vie in breaking the solemn spell of silence that broods over the wilderness of the great north woods; one, the Gray-cheeked, carries his music to the very shores of the Arctic Ocean, and only two,—Wilson's and the Wood Thrush,—remain to pass the summer in the more temperate and populated portions of the country, their northern range scarcely reaching the northern borders of the United States.

In plumage the Thrushes are brown of different shades, the breast and under parts white with dusky spotting and often suffused with buffs and grays. They molt but once in the year, but, as they dwell mostly in shaded seclusion, they do not fade as much as might be expected in a twelvemonth. The field-student will do well to distinguish even the species, for the geographical races or subspecies are not readily recognizable even with specimens in hand for comparison and measurement. It is to be regretted that so much effort has been expended in forcing names upon very slight differences, because, in the confusion which arises, the very purpose for which a name is given, convenience, is defeated. Here, I merely ask my readers to remember that variation is of three kinds,—*individual*, when one bird differs from his own relatives; *seasonal*, when plumage is affected by molt and by wear; and *geographical*, when environment imposes characters

that are inherited. The geographical are the only variations that are nameable.

My out-of-door acquaintance with the Thrushes is of years' standing, and I have enjoyed their company in many parts of the United States and Canada. Furthermore, I have had access to large series of skins, and I now



BREEDING RANGES OF THE OLIVE-BACKED THRUSHES (*Hylocichla ustulata*)
 1. *H. u. ustulata*. 2. *H. u. swainsoni*. 3. *H. u. almae*

hope, by outlining their distribution and prominent characteristics of plumage and habit, to impart, even to the casual reader, some idea of the meaning of geographical distribution and the significance of subspecies.

Let us first turn to the Wood Thrush (*Hylocichla mustelina*), one of the species most familiar to every bird-student of eastern North America. It is known afield by its large size, tawny back and white breast heavily spotted with black, and its breeding range is the smallest of any of the five species,

extending only throughout the dry, deciduous woodlands of the eastern United States and the Mississippi valley, and not crossing the Canadian boundary except in Ontario. In winter it retreats to Cuba and Central America, departing south, like most of the Thrushes, in September. It readily adapts itself to modern conditions and fearlessly nests in the shade



BREEDING RANGES OF GRAY-CHEEKED THRUSHES (*Hylocichla aliciae*)

1. *H. a. aliciae*. 2. *H. a. bicknelli*

trees of parks and lawns, although shy as its brethren in its native forest. Its rich song, suggestive of drowsiness and midsummer, is hardly surpassed even by that of the Hermit Thrush. So much has been written about this species that I need say but little. There are no subspecies recognized.

The Wilson's Thrush or Veery (*Hylocichla fuscescens*)^v is also a familiar acquaintance, much smaller than the preceding species, less yellowish brown and with a buffy breast that is very faintly spotted. He pushes

farther north, reaching Newfoundland in the East and British Columbia in the West, where the coast range of mountains seems to bar his way to the Pacific coast. A line drawn from Philadelphia to Denver will roughly indicate the southern limit of his breeding range, and in winter he is found in Cuba, Central America and sometimes the countries farther south. The Veery, so called from his song, which is a somewhat monotonous although sweet repetition of metallic whistled notes, dwells chiefly in marshy thickets and makes his nest in tussocks of grass.

The birds of the Rocky Mountains and adjacent regions have been separated as a subspecies under the name *salicicola*, or Willow Thrush, characterized by larger size and darker colors, characters that are not well borne out by the few specimens I have examined. Another dark race, *fuliginosa*, from Newfoundland, has also been described but it was not accepted by the A. O. U. Committee.

In *Hylocichla ustulata* we have a group of Thrushes called Russet-backed (*ustulata*) in the West and Olive-backed (*swainsoni*)^v in the East, the unfortunate discrepancy arising because the western birds were named first, in 1840, and the eastern not until several years later, both being then considered full species. As a matter of fact, Nuttall called *ustulata* the 'Western Thrush' (Russet-backed being a later invention), and a simple solution of the dilemma will be to call the two races, which they prove to be, one the Western and the other the Eastern Olive-backed Thrush, with *almæ* (Alma's Olive-backed Thrush) a connecting link between them. The eastern form, *swainsoni*, lacks the russet tinge of *ustulata* which is quite pronounced in the tail, while *almæ* is a greenish, gray-backed bird very close to *swainsoni*. As for *ædica*, I quite agree with Mr. Grinnell that it is merely *ustulata*, faded in the California sun faster than are its fellows to the north.

The breeding range of the Olive-backed Thrush is coextensive with the great belt of coniferous forest that stretches across Canada from ocean to ocean, encroaching also on the northern parts of New England, New York, Michigan, Wisconsin and Minnesota and dipping southward along the mountains of the Appalachian, Rocky and Sierra systems. The tree limit of the continent marks the northern limit of this belt, the greater part of which is still a trackless wilderness, which, for a brief season only, is filled with birds and flowers. Here, however, in this northland, where billows of somber green spruces and firs stretch away on every hand, broken only by innumerable lakes and streams and outcroppings of cold gray rock, the cheerful songs of the Olive-backs may be heard to best advantage, often mingling with those of the Hermits that occupy the same region. The quiet of evening is the favorite hour for their most extended vocal efforts, although they often sing during the day, while the Hermits are apt to be silent save in the early morning hours and toward dusk. Perched high in a tree, whence they may spy any one approaching and dive into the nearest

underbrush, they pour forth successive bursts of rippling melody. While the song lacks the variety, the deliberation and the "spirituality" of that of the Hermit Thrush, it flows with an irresistible swing that fairly eclipses the Hermit's best efforts. In the dry air of the Pacific coast their ringing tones seemed to me to be even clearer and sweeter than in the East.



BREEDING RANGES OF THE HERMIT THRUSHES (*Hyalocichla guttata*)

1. *H. g. guttata*. 2. *H. g. pallasi*. 3. *H. g. auduboni*. 4. *H. g. nana*

They are much shyer and more restless than are the Hermits, although they carelessly place their nests five or six feet from the ground, commonly in small spruces, where they are very conspicuous. The sitting bird crouches motionless in the nest if surprised, but is generally able to slip away unobserved and flit about silently with its mate in the adjacent bushes, sometimes uttering a liquid 'puk' of alarm.

Along the Maine coast and along nearly the whole coast of California,

these birds breed at sea-level, and they have clung to their favorite haunts, the spruce forest, wherever it has been spared by the lumberman and the farmer. So it is that they occur along the higher Alleghanies as far south as Pennsylvania, in the southern Rocky Mountains at about 8,000 feet altitude and in the Sierras and ranges of Nevada at varying altitudes. When the vast breeding range of the birds is considered, it is really remarkable that they vary so little in plumage and practically not at all in size. For the winter they betake themselves to Cuba and Costa Rica, sometimes reaching Ecuador or Peru.

In the *Hylocichla guttata* group of Hermit Thrushes there is a beautiful tangle of names and races, chiefly the result of mistaken zeal on the part of expert ornithologists. Suffice it to say, that Gmelin's old name *aonalaschkæ* has been thrown over because his description is vague and because no *Hylocichla* has ever been or is likely to be taken on Unalaska Island. The next available name is *guttata*.

The range of the Hermit Thrush coincides very closely with that of the Olive-back, although the species is slightly more southern in distribution except in winter, when it does not entirely desert the lower border of the United States. It dwells in the same coniferous forests, with perhaps a preference for the deciduous bits scattered through it, and its song is often blended with that of the other species. It is more sluggish in its movements than the Olive-back, and even its song moves slowly. Nevertheless, the Hermit Thrush bears the palm as the most gifted songster of North America, and his sweet, measured notes poured forth in many stanzas of different keys have been the theme of poetic writers.

The Hermit is less tidy in appearance than the Olive-back and, perhaps because of his more terrestrial habits, becomes more frayed and worn in plumage. This may be one reason why so many subspecies have been described, and varying size is another, but in my opinion, when we have accepted four races, we have about reached the limits of recognizable variation. We should have, then, *pallasi*, the eastern race; *nana*, the smaller, deeper colored Pacific coast race, and *guttata*, the gray Alaska-Rocky Mountain connecting link just as in the Olive-backed Thrush; then we should also have *auduboni*, a large race at the southern extremity of the Rockies, which has no counterpart in the Olive-backs, because they show no variation in size. As for *slevini* of California, if *ædica* is a summer fading, then *slevini* falls into the same category; *sequoiensis* of the Sierras fills an inappreciable gap between *guttata* and *auduboni*, and *verecunda* of Queen Charlotte Islands is, of course, merely the mainland bird *nana*. These conclusions may not meet with general favor, as they are not in complete accord with commonly accepted ideas, although I find them in accord with the facts derived from personal examination of a large number of specimens. I am satisfied that the recognition of more races will simply

mean that all winter specimens will be named by guesswork. Light ones and dark ones, large ones and small ones, may be sorted out into series to which names may be applied, but no one can feel sure by this process of matching that some of the birds in different rows did not come originally from the same nest!

The Gray-cheeked Thrush (*Hylocichla aliciaë*) is a species that boldly seeks the most inhospitable northern confines of the continent, building its nest beyond the tree limit, in the stunted birches, willows and alders that fringe the Arctic Ocean. It ranges from Labrador to Alaska, extending over Bering Strait to the bleak shores of northeastern Siberia,—truly a dreary summer home, but in winter it retires to Costa Rica and Panama. It closely resembles the Olive-back in plumage and, although larger and greener, may easily be mistaken for the latter species. Its habits are similar, and it, too, lays blue eggs spotted with brown, the eggs of the other three species being plain blue. Its song is said to resemble that of the Hermit, but, as it hastens quietly northward in the spring, few of us are destined to enjoy its full melody.

A small dark race, *bicknelli*, Bicknell's Gray-cheeked Thrush, has been described from the Catskill Mountains of New York, and similar birds have been found on the Adirondacks and higher points of New England, as well as on the cold islands off the Nova Scotia coast. The race is but slightly differentiated and may perhaps be considered as a survival, dating from times when glaciation was nearer home.

In conclusion, I would say that many definite records of capture of specimens of the different races are open to doubt, and, while I have not been able to investigate all of them, I have endeavored to weigh them properly and the results are roughly indicated on the accompanying maps, which show approximately the breeding ranges of the different species and races.



The Rose-breasted Grosbeak

By B. S. BOWDISH, Demarest, N. J.

With photographs from nature by the author

WHILE a few writers have tended to exaggerate the beauties of color and sweetness of song, and the value of food habits of this bird, more have slighted it. In the matter of brilliant color few of the tropical birds surpass the Rose-breast, while to the writer, at least, his song has a charm that is rivaled only by the melody of a very few of our feathered vocalists. While, I believe, no systematic study of his food habits has been made by the Department of Agriculture, yet the casual observations of bird students have shown that the Grosbeak has a peculiarly valuable habit, namely, the including of the potato beetle in his bill of fare,—a taste apparently shared by few if any other birds.

On one point the Grosbeak's chroniclers have many of them been remiss. I refer to the share that the male takes in the labor of incubation. In some instances writers ignore this entirely, while I have seen the extreme statement that the male performed this entire work. Neither view is in accord with my experience. In most cases I have observed the female on the nest, while the male proved to be the more fearless and devoted in attending to the household duties in the presence of supposed danger.



NEST AND EGGS OF ROSE-BREADED GROSBEAK

This, of course, is as it should be, but is so contrary to the habits of most birds as to excite comment.

On May 24, 1906, I located two unfinished nests, which I ascribed to Grosbeaks. One of these was never finished, but the other, completed



MALE ROSE-BREASTED GROSBEEK APPROACHING NEST

later, proved to be the property of a pair of Rose-breasts. The following day I found another nest in a dense thicket some three miles from my home. It was situated about eight feet from the ground in an elder bush, and contained two eggs. The male was the only bird about the nest, but was not seen on it. I made a photograph of nest and eggs, but did not again visit the spot, so know nothing of its future history. Within fifteen feet of this nest was a newly finished one of a Wood Thrush and a Catbird's home containing three eggs, while, a little further away, there was another Wood Thrush's nest with three eggs and a second Catbird's with three eggs, also, so the Grosbeaks did not lack for company.

On May 26, a female Grosbeak was sitting on the finished nest found building on the 24th, while another nest was discovered within twenty rods of this one, with the female on it. This latter nest was about nine feet from the ground, in a choke-cherry bush, in a damp thicket, and contained two eggs. The male was nearby, while, in the case of the former nest, no male was seen. The next day I made two visits to these nests in hope of obtaining photographs, but was prevented by rain. On the first

occasion the female was on the nest in each case, while, at the second visit the male was on nest number three.

On the afternoon of the 27th, I set up the camera on a tripod the legs of which had been spliced with extra pieces to elevate it, and, with a bicycle pump and one hundred feet of tubing, awaited an opportunity to make an exposure. Late in the afternoon, when the light was becoming very unsatisfactory, the male went on the nest. I made an exposure, but development proved that the bird had moved and spoiled the picture. On this date I found the other nest was empty and abandoned, I suppose robbed.



MALE ROSE-BREASTED GROSBEEK ON NEST

This latter nest was built in a little elm, about seven feet from the ground, and in plain sight of a public road.

On the 31st, nest number three contained four eggs; the female was on when I arrived, but promptly got off. I set up my apparatus, and at the end of the tube I wrapped myself up in the photographic tent and lay down among the bushes, where I could take an occasional peep at proceedings, through the opening at the top of the tent, closing this during the interim to exclude the too friendly attentions of the myriad of mosquitos. It took some time to establish the confidence of the male Grosbeak (the female retired altogether), but at last he settled on the nest and, giving him time to get comfortably ensconced, I made a half-minute exposure. The second exposure was obtained under even greater difficulties, but eventually I gave

the bird ten seconds as he stood beside the nest, and then went home, fully prepared to find that my two attempts were failures. I was agreeably surprised when they proved to be fairly successful.

On June 2, I again tried to get photographs of both birds, without success, so made pictures of nest and eggs and retired. On the following day the nest was gone, another of the frequent depredations about this spot.

June 9, about ten rods from the site of this nest I noted a female Grosbeak sitting on a new nest, and presume it was the bird from the rifled nest.

Minot, in 'Land Birds and Game Birds of New England,' paying high tribute to the beauty of dress and elegance of song of the male Grosbeak, says "he therefore absents himself from the immediate neighborhood of his nest except when obliged to approach it, or when relieving his mate from the fatigue of incubation, as he occasionally does." In contrast to his observation, I have with one exception found the male Grosbeak always in the close vicinity of his home. Moreover, as seems often to be the case, conspicuousness by reason of brilliant coloring is more apparent than actual. As the photograph shows, when the male Grosbeak settles in his nest the rosy tints are concealed, and the apparently striking blacks and whites blend nicely into the blacks and whites of the foliage perspective.

Off of the nest he is no more conspicuous than the Cuban Trogon, and any one who has been in the forests where the latter birds abounded can testify that, despite brilliant color, the birds are by no means readily located.

The song of the Grosbeak resembles in a great measure the songs of the Robin and the Scarlet Tanager, and I heard one performer that I supposed was a Baltimore Oriole until I saw the bird. There is a less melancholy note to the Rose-breast's song than the Robin's possesses, while it has not a certain harshness that detracts from the quality of the Tanager's performance, and to me it is greatly superior to both.

As a final note I may add that on June 24, 1906, I located an empty nest in the top of a locust in a grove of such trees, near my home. On July 7, I found the female Grosbeak on this nest which, at that time, contained eggs. As this is a late date for Grosbeak to be commencing housekeeping cares, it seems probable that it was a second or third attempt on the part of birds previously disturbed.

Some Bird Acquaintances

NOTES FROM AN INVALID'S SKETCH-BOOK

By EMMA E. DREW*

FIRST come my friends, the Red-eyed Vireos and their family. The pretty mother built her little basket-nest in the apple tree just outside my window. Mr. Red-eyed Vireo did not help his wife in her work, but was ever near at hand to cheer her with his song. It was wonderful to see how skilfully this tiny creature wove the bits of material into a charming little home. Soon there were four pretty eggs in the nest, and in due time three tiny, squirming, naked little birds, and one unhatched egg, which Mrs. Vireo calmly poked out of the nest.

While the mother bird was on the nest I spent a great deal of time by that window, and after a few days she did not mind me in the least. Once I almost touched her, and she never moved.

When the three little Vireos began learning to fly, there were exciting times at 'Shadyside.' Often Mrs Red-eye came to the veranda where I was reading and invited me to step round and rescue her children, once from Miss Day's good, toothless old pussy-cat, and several times from a mass of tall, wet grass. Soon I concluded to bring the youngsters to the vine on the porch, and after that I had an easier time. Then, too, I could watch proceedings from my comfortable steamer chair. One day it occurred to me to try my hand at feeding these young Vireos. So I got a few meal worms and offered one to a youngster. My, how quickly he opened his mouth! Down went the poor worm into what looked to me like a deep well, and his parents had been feeding him almost every moment since dawn! While I stood feeding them, the parent birds came into the vine with food in their bills. Did they fly off in alarm? Not they. Instead, they waited until I had dropped my last worm into the mouth of a nestling, and then proceeded to take their turn as undisturbed as you please. You may be sure I was very happy to be taken into partnership by these neighbors.

* In a letter to the Editor of BIRD-LORE Miss Drew writes: "I send a few notes on birds, not because I feel these notes to be of value, but because some of your readers must, like myself, live an out-of-door life for several years, to regain, in a measure, health and strength, and who, because of inability to walk or drive very much, feel that even the study of birds is not for them.

"For nearly seven years I have been forced to live in the woods in the Adirondacks. For four years I have spent most of the spring and fall months in the little country village of Jay, almost in the "heart of the ancient wood." Most of my days have been spent in a steamer chair on the wide piazza, doing nothing. I have not been from the porch at any time, except during the last year, when I have been able to take some long drives through wonderful woodsy places, and yet I have a list of one hundred and forty birds seen in this way, and have made friends with quite a number. My idea is to show some discouraged invalid that there is real pleasure and work in watching the birds, even from a steamer chair on a piazza."

I have a very special friend in a White-breasted Nuthatch, who has been about the place constantly for about three years, and who knows me anywhere. I call him 'Chum.' This bird friend comes into my room for nuts, placed on the wide window-ledge for his benefit. One day last spring he came before the nuts were quite ready. Not finding what he wanted in the usual place, he gave a low *quank* of wonder and proceeded to look about. I sat near at hand and had just filled a plate with broken peanut meats, ready to distribute about on the window-ledge and on the trays which I have nailed to the pillars of the porch. Chum spied me and at once flew my way, alighting on the edge of the plate, where he slipped about at a great rate. Finally, getting his balance, he selected a bit of nut and flew off out of the window. When walking in the garden, Chum often drops down on me, and I try to remember his fondness for peanuts before I start out anywhere. Again, when writing at my table on the wide piazza, Chum seldom fails to join me, tramping calmly over my letter, if necessary, to reach his little dish of nuts. If I happen to be reposing in my steamer chair reading, Chum spies me there, and flies down on the toe of my boot and marches solemnly up my whole length to my hand, where he selects a bit of nut with due deliberation and great satisfaction. Sometimes he settles himself comfortably on my hand and eats his lunch there, hammering the nut meats between my fingers, and then biting off little pieces best suited to his taste. This little friend brought his wife and five little ones to a tree near the veranda, about the middle of June, but while he came freely, as usual, neither Mrs. Nuthatch nor any of her interesting family could be persuaded to come near me.

Every fall, beginning October 1, I tie pieces of suet to the near-by trees, and nail little wooden trays to the piazza posts. The trays are kept filled with cracked corn, nuts, hemp seed, sunflower seed and coarse oatmeal. Both the suet and the trays are well patronized always.

The fall of 1903 was unusually cold, and most of the time I was glad to wrap up in my rugs and watch the birds from a couch on the veranda, so, in addition to the usual trays, I placed a well-filled one on a little stand about a foot from my resting place. Soon I had plenty of company. All day, from 9 A. M. until nearly 5 P. M., my little comrades were busy at both lunch counters and suet. There were Chickadees, Nuthatches, Goldfinches, Downy and Hairy Woodpeckers and Tree Sparrows. Even a Blue Jay appeared once in a while. The tray near my couch was patronized almost entirely at first by the jolly, friendly, confiding little Chickadees. Often there were a dozen at a time eating peanuts from that tray. Each would take a piece of nut, fly to some near-by resting place and eat with a good appetite. One fellow flew over onto me and ate his nut, warming his toes on my rug at the same time. Another inquisitive little Chickadee flew onto my head, and began to peck at the button which adorns my cap.

Sometimes I would not get out very early with fresh nuts for the trays. Then some of these little friends would appear at my window and peck at the glass, as much as to say, "Where is our breakfast?" Soon these bird neighbors become so friendly that, when I opened my windows and held out my hands filled with nuts, down they would fly with a *chickadee-dee* for good-morning, and take the nuts from my fingers.

This spring I had the pleasure of finding a flock of ten red Crossbills. They were first observed April 30, in some apple trees near our cottage. They were very tame, and I was able to sit down within six feet of them and watch them. Three of the males were in full spring dress, and were beauties. Two more had a quantity of red in their plumage. When startled, they would fly a short distance away, uttering twittering notes as they flew. I watched them for more than an hour with my glass, and found they were extracting the seeds from some apples which had been left on the trees all winter. The next morning when I looked out, lo, there they were again to greet me! Reading in Mrs. Bailey's 'Birds of Village and Field' that these birds were very fond of salt pork, I tied bits of this meat to the limbs of the trees hoping to keep them after the apple seeds failed. This succeeded beyond my expectation, for morning and afternoon of nearly every day until June 8 that little flock came to the orchard. On that day they disappeared and were not seen again. While feeding, they gave a sort of whistling note. They seemed very happy and very much at home. At intervals one would stop feeding and sing a sweet little song, not powerful or very loud, but varied and exceedingly pleasing.

While watching the Crossbills one morning (May 4), a Ruby-crowned Kinglet flew into a near-by tree. At first he fed in silence, then began to flit from twig to twig in such a pretty, graceful fashion, and suddenly broke out into song. This was the first time I had ever heard the spring song of this tiny bird, and it was, truly, a red-letter day for me. The song is quite wonderful—or so it seemed to me—a prolonged and varied warble, mellow and flute-like, with such sweetness and purity of tone! The bird is so small, and the song so loud, and rich and full, that at first I looked about for a larger bird.

One morning, about the middle of June, a Robin, seemingly in great distress, came into the vine near my chair. When I started up, expecting to see a cat about, the bird flew to her nest at the other end of the veranda and then back to me. Placing a chair under the nest, I climbed up and looked into it. Half in and half out of that nest hung a young Robin! In some way a piece of string had become twisted about his neck. I hastened to get my scissors and cut him down, to the great joy of his mother, who kept close at hand while I released her child and placed him safely back in the nest. She seemed to know I was doing her a good turn. The young bird, after he got his breath again, appeared to have suffered no great harm.

This spring, besides keeping out the tray of food and the suet for my bird neighbors, I hung out several cocoanuts. First I made a hole in one side about the size of a quarter and then suspended the nuts by strong twine from the near-by trees. Soon Nuthatches, Chickadees and Woodpeckers patronized freely these little "houses full of meat" and furnished no end of fun besides. Often all I could see of a hungry Chickadee was the end of his tail. The Downy Woodpecker couldn't quite get inside, but he went as far as he could, and even the big Hairy tried his hand at the nut.

I would like to tell of other friends among the birds—of the pair of Song Sparrows who for two years have built their home in a white rose bush not far from the house, and who daily — yes, and many times a day — stroll up and down this wide piazza, talking in undertones of housekeeping cares and feeding on the hemp seed scattered about for them at the same time, never minding me in the least, and of the two pairs of Chipping Sparrows who never failed to build in the vine on the porch, or to bring their young to my window-sill and teach them to eat peanuts, and of how one poor bird was nearly choked to death because its mother jammed too large a piece down his throat one day. And, too, of the pair of Robins who also built in our vine very close to a Chippy's nest, and of how each time Mrs. Robin left her own pretty eggs for a little recreation she never failed to bring back some dainty for her neighbor's children; all of which attentions Mr. and Mrs. Chippy resented, even severely pecking the officious Robin, who seemed to like the unkind treatment, for she steadily and persistently fed those young Chippies. I would like to tell you all this and more, but there is not time. But let me add one word. Let me tell you that the friendship and the companionship of these little comrades has been not only a source of real pleasure and comfort during these few years of enforced exile from home and friends, but an education as well. Many a needed lesson in patience have they taught me. Many a lesson in affectionate consideration and helpfulness as well.



Some Edmonton, Alberta, Birds

By SIDNEY S. S. STANSELL

With photographs from nature by the author

IN visiting Alberta for the first time, I find there are many birds here that are not listed as breeding this far north by several hundred miles. My first surprise was in seeing the Rose-breasted Grosbeak; my second when, early one morning, I heard a House Wren singing, for all the world, as it does in Illinois. My third surprise came when I heard the familiar call of the American Goldfinch, flying just as he did at home and singing his same old song when resting on a bush or tree.

Thus my list of birds has lengthened and, by searching the woods day after day, I became acquainted with more and more birds on each visit, locating a nest here and one there. I soon had a fair collection of photographs, a few only of which are shown here.

On June 25, I visited Rat Lake, a small body of water containing only a few acres, situated within a few minutes' walk of the city of Edmonton.

Here I expected to find Ducks nesting, but, on account of its proximity to the city, the small boys and hunters kept them away; and all the reward I received for my diligent search was a solitary Pied-billed Grebe's nest floating in the center of the lake, and this contained only one egg, so no photograph was taken.

After encircling the lake twice I noticed what at first seemed to be a bunch of dry grass, but, on looking closer, it proved to be an American Bittern hiding. I advanced toward the bird slowly and carefully until I was within fifty feet of it, and yet it stood perfectly still. I timed it, and it remained in



ROBIN FEEDING YOUNG



CANADA JAY
April 8, 1907

the same position for twenty minutes, then flew away to another lake near by.

On starting home I flushed a Wilson's Snipe, but failed to locate its nest. Several Killdeers were running along the shore, continually uttering their familiar cries and trying to lead me away from their nest of young, which I did not have time to locate.

The Northern Flicker is quite scarce here. I do not remember seeing more than two or three pairs during the season and did not locate a single nesting site. White-throated Sparrows and Slate-colored Juncos abound in



NEST AND YOUNG OF OLIVE-BACKED THRUSH

the low, wet places, even in the back yards in the city, and frequently are seen sitting on the telephone and electric light wire on the busiest streets.

The English Sparrow did not seem to be very abundant in the spring of 1906, and the following fall numerous flocks could be seen at most any time of day chattering in the trees or flying about over town.

The American Robins are more numerous here than I expected to find them. They nest along the Saskatchewan River and close to habitation; the greatest number of nests I located were in white poplar trees. The one in the illustration was on a steep hillside near the river. Even in this short summer two broods are reared. Several nests of the Olive-backed Thrush were found, all of them being about the same height above ground and constructed of the same material. In the nest containing the three young Thrushes, shown in the illustration, two Cowbird eggs were found.

The Migration of Thrushes

THIRD PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

GRAY-CHEEKED THRUSH

SPRING MIGRATION

PLACE	No. of years' records	Average date of spring arrival	Earliest date of spring arrival
Gainesville, Fla.			April 26, 1887
Raleigh, N. C.	3	May 12	May 4, 1894
Washington, D. C.	8	May 11	May 8, 1907
Englewood, N. J.	5	May 23	May 11, 1898
Shelter Island, N. Y.	4	May 20	May 17, 1901
Beverly, Mass.	5	May 23	May 20, 1902
New Orleans, La. (near)	4	April 22	March 27, 1897
St. Louis, Mo.	4	May 3	April 24, 1885
Central Iowa	7	May 9	April 28, 1906
Oberlin, Ohio	5	May 7	April 29, 1899
Chicago, Ill.	9	May 12	May 1, 1899
Lanesboro, Minn.	8	May 12	May 7, 1893
San Antonio, Texas			April 24, 1890
Onaga, Kansas	3	May 6	May 1, 1904
Aweme, Man.	4	May 14	May 11, 1906
Fort Keogh, Mont.			May 18, 1889
House River, Alberta			May 19, 1903
Fort Chippewyan, Alberta			May 22, 1901
Fort Anderson, Mack.			May 28, 1865
Kowak River, Alaska			May 24, 1899

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Raleigh, N. C.			May 17, 1893
Washington, D. C.	6	May 27	June 5
Englewood, N. J.	5	May 28	June 1, 1897
Beverly, Mass.	3	May 31	June 2, 1904
New Orleans, La.	4	May 5	May 10, 1903
St. Louis, Mo.	3	May 22	May 25, 1886
Chicago, Ill.	11	May 25	May 29, 1900
Lanesboro, Minn.	3	May 24	May 27, 1893
San Antonio, Texas	2	May 13	May 15, 1890
Onaga, Kans.	3	May 17	May 18, 1904

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Chicago, Ill.	6	September 11	August 26, 1894
Beaver, Pa.	3	September 18	September 7, 1903
Washington, D. C.	5	September 28	September 15, 1897
Raleigh, N. C.	4	October 6	October 2, 1888

FALL MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Kowak River, Alaska			August 25, 1898
Nome City, Alaska			September 8, 1899
Fort Simpson, Mack.			September 9, 1860
Athabaska Landing, Alberta			September 12, 1903
Aweme, Man.	5	September 9	September 30, 1903
Chicago, Ill.	3	October 2	October 6, 1894
Washington, D. C.	2	October 9	October 12, 1889

The most striking characteristic of the Gray-cheeked Thrush is its rapid migration, probably the most rapid of all North American birds. Scarcely five weeks are occupied in the journey from the Gulf of Mexico to Alaska, an average speed of a hundred miles a day and a probable speed during the latter part of the journey at least twice as great.

OLIVE-BACKED THRUSH

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Raleigh, N. C.	8	May 4	April 22, 1892
Lynchburg, Va.	3	May 4	April 30, 1902
French Creek, W. Va.	3	April 29	April 27, 1893
Washington, D. C.	17	May 5	April 19, 1896
Beaver, Pa.	4	May 3	April 30, 1902
Germantown, Pa.	5	May 6	May 3, 1890
Providence, R. I.	5	May 12	May 11, 1902
Eastern Massachusetts	14	May 14	May 7, 1897
St. John, N. B.	10	May 21	May 8, 1887
Halifax, N. S.			May 18, 1896
<i>Mississippi Valley—</i>			
New Orleans, La.			April 2, 1895
Central Kentucky	5	April 24	April 14, 1906
St. Louis, Mo.	6	April 23	April 17, 1885
Oberlin, Ohio	8	April 29	April 22, 1902
Southwestern Ontario	5	May 6	May 3, 1885
Ottawa, Ont.	7	May 13	May 5, 1902
Southeastern Nebraska	4	May 4	April 28, 1900
Chicago, Ill.	11	May 2	April 23, 1897
Central Iowa	14	May 6	May 3, 1904
Lanesboro, Minn.	6	May 8	May 1, 1887
Minneapolis, Minn. (near)	7	May 8	May 3, 1905
Huachuca Mountains, Ariz.			May 2, 1902
Northern Colorado	4	May 8	May 6, 1906
Cheyenne, Wyo.	3	May 9	May 7, 1888
Great Falls, Mont.	3	May 15	May 13, 1892
Columbia Falls, Mont.	3	May 19	May 17, 1896
Athabaska Landing, Alberta (near).			May 17, 1903
Fort Simpson, Mack.			May 24, 1860
Southern California*	3	April 12	April 7, 1886
Central California	6	April 22	April 12, 1885
Southern British Columbia	4	May 10	May 7, 1889
Dawson, Yukon			May 24, 1899

*The Pacific coast records belong to the Russet-backed Thrush.

The Migration of Thrushes

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SPRING MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Lomitas, Texas			May 22, 1880
Releigh, N. C.	6	May 13	May 17, 1893
Washington, D. C.	7	May 21	May 28
Beaver, Pa.	3	May 22	May 23, 1902
Beverly, Mass.	8	May 27	June 4, 1900
Central Kentucky	7	May 21	May 24, 1905
St. Louis, Mo.	4	May 25	May 29, 1882
Oberlin, Ohio	9	May 24	June 13, 1905
Chicago, Ill.	10	May 28	June 6, 1894

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Chicago, Ill.	11	August 27	August 16, 1900
Central Kentucky	4	September 4	September 3, 1904
Southern Mississippi	3	September 19	September 12, 1897
Beaver, Pa.	6	September 15	September 13, 1902
Germantown, Pa.	5	September 17	September 11, 1886
Washington, D. C.	5	September 24	September 6, 1879
French Creek, W. Va.	3	September 15	September 8, 1890
Atlanta, Ga. (near)	6	September 19	September 14, 1901

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Columbia Falls, Mont.			September 23, 1895
Ottawa, Ont.	5	October 2	October 21, 1902
Oberlin, Ohio	3	October 2	October 24, 1896
Chicago, Ill.	5	October 3	October 24, 1897
Bay St. Louis, Miss.			October 31, 1901
St. John, N. B.	7	September 22	October 18, 1892
Germantown, Pa.	5	October 17	October 24, 1885
Atlanta, Ga. (near)	6	October 19	October 25, 1904
Raleigh, N. C.			November 19, 1885

HERMIT THRUSH

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Washington, D. C.	8	April 7	January 1, 1876
Germantown, Pa.	6	April 9	April 3, 1888
Englewood, N. J.	3	April 11	April 1, 1898
Renova, Pa.	10	April 17	April 5, 1897
Alfred, N. Y.	11	April 19	April 10, 1895
Hartford, Conn.	9	April 12	April 3, 1901
Providence, R. I.	5	April 20	April 10, 1904
Eastern Massachusetts	12	April 15	March 18, 1894
St. Johnsbury, Vt.	5	April 21	April 10, 1896

SPRING MIGRATION, continued

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast, continued</i>			
Lewiston, Me.	6	April 20	April 6, 1902
Plymouth, Me.	13	April 21	April 17, 1895
Montreal, Can. (near)	4	April 26	April 12, 1890
Quebec City, Can.	11	May 4	April 22, 1902
Scotch Lake, N. B.	6	April 21	April 19, 1902
St. John, N. B.	8	April 29	April 16, 1889
Halifax, N. S.	6	April 25	April 19, 1891
North River, Prince Edward Island .	5	May 2	April 18, 1891
<i>Mississippi Valley—</i>			
St. Louis, Mo.	7	April 4	March 30, 1888
Bloomington, Ind.	4	April 4	March 23, 1902
Oberlin, Ohio	6	April 10	March 21, 1903
Petersburg, Mich.	9	April 11	April 7, 1893
Ann Arbor, Mich.	10	April 9	April 2, 1904
Southwestern Ontario	15	April 15	April 6, 1904
Ottawa, Ont.	13	April 19	April 8, 1906
Charlwich, Ont., and vicinity	9	April 25	April 13, 1890
Chicago, Ill.	12	April 7	March 24, 1893
Hillsboro, Iowa, and vicinity	9	April 6	March 31, 1905
Central Iowa	14	April 7	March 20, 1905
Lanesboro, Minn.	6	April 9	April 5, 1888
Minneapolis, Minn., and vicinity . .	5	April 11	April 1, 1905
Aweme, Man.	3	May 2	April 25, 1903
Athabaska Landing, Alberta (near).			May 17, 1903

The Hermit Thrush, in one or another of its forms, ranges from the Atlantic to the Pacific, but in the West it breeds from Alaska to Arizona. The winter and summer ranges overlap for some hundreds of miles and the migrations of the more northern breeding birds cannot be accurately traced.

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Northern Florida	4	March 19	May 7, 1903
Raleigh, N. C.	6	April 23	April 29, 1892
Washington, D. C.	3	May 4	May 17, 1891
New Orleans, La.	5	April 8	April 13, 1895
Waterloo, Ind. (near)	5	May 4	May 17, 1905
Oberlin, Ohio	6	May 6	May 14, 1906
Chicago, Ill.	11	May 5	May 20, 1897

FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Germantown, Pa.	5	October 12	September 29, 1889
Beaver, Pa.	3	October 14	October 3, 1899
French Creek, W. Va.	3	October 12	September 3, 1889
Washington, D. C.	7	October 20	September 18, 1900
Raleigh, N. C.	8	October 21	October 16, 1885
Northern Florida	2	November 19	October 27, 1904
New Orleans, La.			September 26, 1894

FALL MIGRATION, continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Athabaska Landing, Alberta			September 14, 1903
Aweme, Man.	3	September 17	October 17, 1906
Lanesboro, Minn.	3	October 12	October 26, 1890
Chicago, Ill.	6	October 12	October 20, 1897
Central Iowa	3	October 15	November 9, 1889
Waterloo, Ind. (near)	5	October 22	October 25, 1889
Ottawa, Ont.	9	October 14	November 24, 1895
Southwestern Ontario	9	October 18	November 11, 1898
Oberlin, Ohio	4	October 27	December 4, 1903
North River, Prince Edward Island	2	October 10	October 19, 1887
Montreal, Can.	4	October 16	October 20, 1888
Scotch Lake, N. B.	5	October 22	November 3, 1905
St. John, N. B.	7	October 24	October 26, 1893
Southwestern Maine	8	October 27	November 14, 1903
Providence, R. I.	5	October 30	November 11, 1900
Southeastern New York	7	November 2	November 13, 1903
Germantown, Pa.	5	November 3	November 11, 1889
Washington, D. C.	2	November 10	A few in winter

Correspondence

Editor of BIRD-LORE:

Dear Sir: If there is one thing that is more aggravating to me than another it is to be misquoted, and, as Mr. Taverner has systematically misquoted me throughout his article in the last number of BIRD-LORE, I hope the Editor will give me a little of his valuable space for a reply.

In the first place, I did not intend to apologize for anything; the object of my communication was, first, to show that even egg-shells might be scientifically studied and, second, that the average egg-collector was as scientific in his methods as the average collector of anything. I made no comparison of the comparative value of the Old Squaw and Great Auk, but said that from a strictly scientific standpoint the Labrador Duck was not a whit more valuable than the Old Squaw. Neither did I say anything about Professor Newton's opinion of oölogy as a science, but that he came forward to defend the egg-collector. What he said may be found in the Report from the Select Committee on Wild Birds' Protection, published in 1873. I am not aware that he has changed his point of view since.

In conclusion, let me remark that but for Major Bendire's interest in collecting birds' eggs, we should not have had his charming and valuable 'Life Histories of North American Birds,' and while he *might* have taken up various other branches of ornithological work, the fact remains he did not.

Very truly yours,

BROOKLYN, N. Y., April 24, 1907.

F. A. LUCAS.

Notes from Field and Study

English Sparrows and Electric Lights

The English Sparrows in a country community near one of the large cities of the Middle Atlantic states have learned to make use at night of the electric lights.

Many of the houses in this district have recently been provided with lights over the entrance doors or in the porticoes; and the electric bulbs are, for the most part, suspended in decorative lanterns of an old-fashioned style consisting of a high-peaked iron top and a frame which encloses the glass below. This glass is spherical, and is so set in the frame that there is an open space all around between the glass and the top of the lantern. The birds have found this easy entrance, and have also discovered part way up inside the iron top a bar that looks as if made for a perch. There, above the warm light, they have found shelter at night, one bird, as a rule, being in each lantern.

The lights are controlled at a central plant and are turned on automatically at a fixed time, and on clear evenings they often appear before the daylight has gone and are then relatively inconspicuous. The birds, however, seem to be watching for them and quickly fly into the lantern-tops. On dull evenings, or when the lighting has been unusually delayed, the birds have frequently been seen on their perches in the lanterns before the lights have appeared.

For about an hour the Sparrows remain awake and on the alert, ready to take flight if investigation is inquisitive or is prolonged more than a very few minutes; but when they are once sound asleep they are not easily disturbed.

The birds were first observed in the lantern-tops in the cold weather that came early in January of this year, and from that time until the present (April 15) they have regularly occupied most of the available places.

The difference in temperature between the air inside the lanterns when the lights are on and that immediately outside is con-

siderable. With an outside temperature of 27° Fahr., the mercury in a thermometer whose bulb was placed on a level with the perch inside the lantern stood at 44° Fahr. three hours after the light had been turned on.

While it gives pleasure on a wintry night to think that the birds are enjoying the warmth of the electric lights, it is questionable whether the toasting at night followed by exposure to storm and wind by day can be beneficial. And, if this suddenly acquired habit of the English Sparrow is injurious, it is at variance with the commonly received idea that animal instincts are a safe guide.

If the greater warmth is so agreeable to these birds, why do they not go in winter to a warmer latitude? Are they unaware of the migration of other species, or are they physically unable to accomplish it? Or is it something so long absent from their hereditary make-up as to be non-existent to them?

With the coming of spring a new feature has appeared: In two lanterns straws and hay are accumulating. In one case they are collected inside the glass globe close around the electric bulb. This arrangement seems not to be satisfactory, for the work is not progressing. In the other lantern there is a closely-packed mass across the base of the cone-shaped iron top forming a compact layer above the electric light with one small round hole that seems like an entrance. Is this layer the base of a nest? Is the arrangement a sort of incubator? To investigate would be to destroy the structure.—HARRIET RANDOLPH, Bryn Mawr College, Bryn Mawr, Pa.

Red-breasted Nuthatch at Sea

The notes of the Red-breasted Nuthatch migration in BIRD-LORE for December remind me of the birds that boarded our steamer last September.

It was, I believe, the 27th, and a strong northwest wind was blowing. When

between two and three hundred miles east of Newfoundland it was reported that several birds had come aboard, apparently much exhausted. They kept largely to the lower deck, where they were fed, and a number of the passengers saw them there, but no one seemed able to identify them until at last they were declared to be Labrador Waxwings. This announcement aroused my curiosity. I heard strangely differing descriptions of the birds, but I did not see them until we were nearing Boston Harbor, when they flew all about the steamer.

My first glimpse was of one running down a post, and shortly afterwards I saw several of the pretty little Red-breasted Nuthatches, apparently as happy to be in sight of land as we were.

Were they probably driven out to sea by the winds as they were leaving Labrador or Newfoundland?

Occasionally we see these northern birds here in the winter. Three years ago a pair of them appeared November 17, and remained with us until January 27.

They were daily visitors at my bird table, seemed very fond of hemp seed and were very friendly and familiar. I have not seen them here since, though I eagerly look for them every winter.—(Mrs.) M. B. MITCHELL, *Chattanooga, Tenn.*

The Wood Duck and the Canvasback in British Columbia

As an instance of the variation in numbers of some Ducks, I may cite my experience with two of the species you name.

When I first came to British Columbia, in 1887, the Wood Duck was comparatively scarce, though little Duck shooting was done then. Each year it became a little more numerous; in 1896 the species had reached the height of its abundance. In that year it was an easy matter in the lower Fraser valley to kill fifteen or twenty birds in a day, but not a small portion of the flocks passing through were killed. About sundown in September and early October flock after flock of Wood Ducks could be seen flying at a moderate height, from thirty to one hundred yards high. The direction of

flight was from east-northeast or, following the Fraser River, they seemed to come down through the Fraser cañon, which splits a deep rift in the wall of the Cascade Mountains. But the curious thing is that at no portion of the province east of the Cascades have I found the Wood Duck anything but a very scarce bird, and I never saw or heard of it in the Cariboo district (where these birds were heading from). Were these eastern birds from northern Ontario, northern Manitoba, etc.? Of late years they have somewhat decreased, though still fairly common.

The case of the Canvasback is still more remarkable. In 1887 I never saw the bird, and not until 1891 was I able to shoot one, though Duck shooting almost continually. There were considerable numbers on the coast, but up the Fraser it was almost unknown.

About 1894 it commenced to appear in the latter locality, and was very common in 1896 and has been of common occurrence since. Here this spring it was numerous, more so than I ever saw it before.

It is a common breeder in open country from latitude 54° northward, and a few breed even as far south as this latitude. East of the Rockies it breeds farther to the south.—ALLAN BROOKS, *Okanagan Landing, B. C.*

Bird Notes from New Mexico

I fear that we are going to have trouble with the Flickers, and it worries me, for I can not ask every one to be as sentimental about birds as I am. I have heard them tapping on our wood cornice and veranda pillars. I don't see how worms could exist in painted wood. There is very little wood about here. Nor can I see how there can be any insects in plastered adobe, although we all know that the unplastered adobe houses are hotbeds of ants. We have lots of boxes around and there are wooden fence-posts, so I don't know what to do; all our birds seem very tame.

Some of our best farmers also complain of the Quail; in the evenings they descend in great flocks from the foothills, and feed upon the alfalfa. We are too far from the

foothills to be troubled by this; ours live in the orchard, and we prize them.

Apropos of Hawks—I have seen very few this winter, although Mr. Bartlett had told me of the great flocks which usually winter here, and I wonder if their scarcity has anything to do with the unusual trouble we are having with rodents! Our new ditch banks are literally riddled with gopher holes, and we are having great trouble in irrigating. Yesterday they found about thirty holes in half a mile of ditch!

The New Mexico rodents which break our ditches are gophers, also "commercial rats," field mice and others. We are rodent-ridden. We have had great trouble with the rat-holes in ditches causing flooding and delays in work. I saw a number of Hawks last autumn, but only one group of five all winter, although they are said to winter here. This is a wonderful country and almost anything can be done agriculturally if the rodents and insects can be kept down. We have more pests than I ever before saw or dreamed of; what would become of us without the birds? And yet they are censured for taking some grain and fruit, while it has literally to be snatched from insects. The Tanager is also greatly censured and often shot for molesting the bees.

I often watched them last summer and never found them doing any harm. I am happy to say that the Flickers did not return to our eaves. I hear them all about us. Our western Flycatchers and Meadowlarks are numerous and charming.—(Mrs.) CHARLES T. BARTLETT, *Victoria, N. M.*

The Blue Jay's Food

I noticed in the April, 1907, number of BIRD-LORE what is said about the Blue Jay as a cannibal. I fear the half has not been told; still, I would not wage war on the saucy, brilliant fellow who gladdens our grove the year round. Five or six years ago my manager had a serious attack of making money raising chickens, and purchased incubators, brooders, sanitary coops, etc. After the little chicks were placed in the brooders and confined in little pens about sixteen feet square, the Blue Jays found they

had a good thing and began acting up to their belief in its goodness by killing the chicks from one to three weeks old by the dozens. A Jay would swoop down into the pen, hit a chick nearly always in the eye and off again. In a few minutes back he would come and give the little chick another peck, and usually about the third time kill him, pick him up and fly a little distance away, pick out the brains and begin an attack on another chick. We tried to prevent this destruction by keeping on the watch and frightening them away, but still they would succeed in killing as many as twenty in a day. Finally anger took the place of admiration, and guns were called into use. Needless to say that the firing caused the migration from our groves of nearly all the birds we had protected for years, as well as the death of the Jays.

There is no question as to the killing of the chicks by the Jays, for many of us watched the manner of the Jay's attacks from start to fatal ending. If the chicken-raising had been continued I am sure other protection than the gun for the little fellows would have been instituted.—A. H. BARBER, *Waukesha, Wis.*

Nesting-Sites of the American Long-eared Owl in Manitoba

In "Notes from Field and Study" for March-April, 1907, there is a note by A. D. Tinker* on the "Unusual Nesting Site of the American Long-eared Owl."

In Manitoba it is not a very unusual occurrence to find these birds nesting on the ground. The nests that I have seen have always been in woods among aspens and willows, in rather damp situations, little or no attempt being made to build a nest.

This habit seems to be practiced only when no old Crows' nests are to be found in the immediate vicinity, as such nests seem to be always used when in a suitable situation.

In my twenty years' experience I have in no case found a nest of this species above

*We take this opportunity to correct a typographical error, Mr. Tinker's name having been inadvertently spelled with an F.

the ground that was built by the bird occupying it.

The same habit of using other birds' nests is practiced by the Western Horned Owl in Manitoba, but in this case it is usually an old nest of a Red-tailed Hawk that is selected.—NORMAN CRIDDLE, *Arveme, Manitoba*.

A New Robin Food

The snow-storms and cold of last week made a trying time for the advance guard of birds up from the South, but at least one Robin came out of it fatter than he went in. It was noticed nearly three weeks ago that he had taken possession of certain premises, and, when the snow came, apple was cut up for him and placed on the sill of an open bay window. He was glad enough to come and eat, and when the next lunch was set for him on the couch inside, it was a very short time before he had ventured in after it. For the following two or three days, when the snow kept falling and the ground was

covered, he remained in possession of the room, flying in and out at frequent intervals. But he would eat nothing but cut apple and shredded wheat biscuit. Pettijohn and oat-flakes he passed by, and at beefsteak minced for him he turned his beak way up, utterly refusing even in stress of weather to lower his standard of toothsome delicate angleworm.—H. S. BIXBY, *Plattsburgh, N. Y.*

A Late Warbler

On November 27, 1906, I saw a male Black-throated Blue Warbler, feeding in some shrubbery. I saw him again on December 1, and on December 9, I found him lying dead outside the door. The day before had been very cold, and I suppose that the cold, combined with lack of food, was the cause of his death.—LOUIS DURHAM, *Irvington, N. Y.*

[The specimen above mentioned was presented by Mr. Durham to the American Museum and was found to be in a greatly emaciated condition, having evidently died of starvation.—F. M. C.]



CATBIRD ON NEST

Photographed by F. E. Howe, Sterling, Ill., April 11, 1906

Book News and Reviews

USEFUL BIRDS AND THEIR PROTECTION.

Containing brief descriptions of the more common and useful species of Massachusetts, with accounts of the food habits, and a chapter on the means of attracting and protecting birds. By EDWARD HOWE FORBUSH, Ornithologist of the State Board of Agriculture. Illustrated by the author, C. Allan Lyford, Chester A. Reed, and others. Published under direction of the Massachusetts State Board of Agriculture. [1907.] 8vo. xx + 437 pages, 171 figures, 56 plates.

In no single volume known to us is the importance of birds to man so satisfactorily established. Mr. Forbush is not only an ornithologist but an entomologist as well, and, furthermore, he has had wide experience in making a personal presentation of the results of his studies to those for whom they were primarily intended. He is therefore exceptionally well equipped to state the birds' case in their varied relations to man, and we are assured that no one who will read this volume conscientiously will fail to be convinced by his arguments.

The book contains an amazing amount of information and still is interesting reading—a rare and valuable combination. BIRD-LORE'S space only permits of the following synopsis: Chapter I, "The Value of Birds to Man," under which are included sections on "Primitive Man's Relations to Nature," "The Increase of Insect Pests," "Capacity of Birds for Destroying Pests," "The Increase of Injurious Insects Following the Destruction of Birds," "The Destruction of Injurious Mammals by Birds," "The Commercial Value of Birds," "The Esthetic, Sentimental and Educational Value of Birds," etc.

In Chapter II, "The Utility of Birds in Woodlands," and the "Relations of the Bird to the Tree" are discussed. Chapter III treats of birds as "Destroyers of Hairy Caterpillars and Plant Lice," while Chapter IV states the "Economic Service of Birds in the Orchard." Chapters V and VI and VIII to X contain descriptions and biographies with special reference to food

habits of our common birds under such groupings as "Song Birds of Orchard and Woodland," "Birds of Field and Garden," "Birds of the Air," "Birds of Marsh and Waterside," etc. In Chapter XI we have an exceptionally valuable contribution to the question of bird destruction under the heading "Checks upon the Increase of Useful Birds," and in Chapter XII, under the title "The Protection of Birds," we have one of the best contributions to practical bird protection with which we are familiar. The illustrations, many of them by the author, are admirable, and, all in all, we have here a book which will long remain the most comprehensive statement of the bird's claims to man's attention.—F. M. C.

The Ornithological Magazines

THE AUK.—Several papers in the April issue deal minutely with the distribution of birds in limited areas, H. H. Kopman discussing those of Louisiana and Mississippi; B. H. Swales and P. A. Taverner, those rare in or wrongly attributed to southeastern Michigan, and J. F. Ferry, the winter visitors of a section of northeastern Illinois. R. Deane records an unusual flight of Goshawks (*Accipiter atricapillus*), composed, singularly enough, almost exclusively of adult birds, which, during the past winter, descended from the north and were noted by many observers from Maine to Manitoba.

H. A. Estabrook epitomizes the English Sparrow problem, and advocates extermination of the birds; A. Brooks describes a hybrid (with accompanying plate in black and white); R. W. Williams, Jr., offers further notes on some birds of Florida; W. C. Braislin, some on those of Long Island, N. Y., and A. C. Bent gives us a pleasantly readable account of the nesting of the Marbled Godwit (*Limosa fedoa*), with half-tones of its nest and eggs.

The lays of Bewick's Wren are interpreted in musical notation by A. H. Howell and H. Oldys; and who would suppose so

diminutive a bird could sing about three notes in six flats!

William Brewster separates the Black Rails of California under the name *Porzana jamaicensis coturniculus*, and, in another article, corrects the supposed records of the Cinnamon Teal in Florida and South Carolina.

Much might be said in favor of A. H. Felger's card system of note-keeping at page 200, but every system has its limitations, and the distinctness of the individual pen-pictures in our journals is lost by the use of any mechanical method, while the hopelessly unwieldy size to which card systems grow is another serious drawback. Poets and geniuses are not tied to card-catalogues, and can we think of White or Audubon or Burroughs or a dozen others with pockets full of ruled cards?

Changes in the names of North American birds are discussed in a paper by W. Stone. When a cast-iron code of rules for fixing scientific names is invented, stability may result, and meanwhile current usage is fixing vernacular ones to the confusion of those who ought to furnish handles that don't pull off.—J. D., JR.

THE CONDOR.—In the March number of 'The Condor' Finley continues his series of life-histories of western birds, illustrated with photographs taken by Bohlman. Among the Pelicans' is an interesting account of a breeding colony of the birds in southern Oregon, and the eight half-tones show clearly some of the habits of the old and young. The 'Migration and Nesting of the Sage Thrasher,' by Gilman, recounts the experiences of the author with this comparatively little-known bird at Palm Springs, Cal., and in southwestern Colorado. 'An Experience with the South American Condor,' by Samuel Adams, describing the finding of a nest and the collecting of the old birds and young near the mouth of the Rio Gallegos in Patagonia, is an article which should be read in connection with Finley's 'Life History of the California Condor.'* It is interesting to note the similarity in the nesting habits of the two birds

and also to learn that the Condor, instead of being confined to the Andes, as usually supposed, is found on the pampas and breeds in the barrancas or cliffs along the coast of southern Patagonia.

In 'Nesting Ways of the Western Gnat-catcher,' Miss Harriet W. Myers describes a nest found in the Little Santa Anita Cañon, Los Angeles county, California, and the manner in which the young Gnat-catchers are fed by their parents. An excellent piece of work on geographic distribution has been done by the editor, Joseph Grinnell, in a paper on 'The California Distribution of the Road-runner (*Geococcyx californianus*). All the authentic definite records of the occurrence of the bird in the state have been collected and plotted on a map, which is reproduced to illustrate the article. The distribution of the bird "seems to follow very closely the limits of the Upper and Lower Sonoran zones," and in the interior extends from Igo, Shasta County, to the Mexican boundary. 'Stray Notes from the Flathead Woods' consists of brief notes on five species of birds made by Silloway in June, 1906. In discussing 'The New Check-list' now being prepared by the A. O. U., Taverner suggests that the names of subspecies be printed in smaller type than those of species, and that the latter be given a distinctive English name. Some such plan as this would go far toward simplifying the 'Check-List' for readers who are now confused by the number of subspecies in such groups as the Horned Larks and Song Sparrows. Under the title 'A Forgotten Reference to the Natural History of California,' Walter K. Fisher summarizes the notes on birds in T. J. Farnum's 'Life, Adventures and Travels in California,' the second edition of which appeared in 1852.—T. S. P.

Book News

THE OUTING PUBLISHING COMPANY announce the publication of 'The Passenger Pigeon,' by W. B. Mershon, illustrated by colored plates by Fuentes and Allan Brooks.

* 'The Condor,' v. 1111, pp. 135-142, 1906.

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

To the Editor alone is due the entire blame for the delay in the appearance of this number of BIRD-LORE. A voyage to the Southeastern Bahamas consumed double the time allotted to it, and, on returning, a Heron rookery, which under protection has developed conditions creditable to the days of Audubon, proved so alluring that we deliberately ignored the call of editorial duties, confident of the approval of BIRD-LORE'S readers.

To this same absence must be charged the sin of a sadly neglected correspondence; and may we beg further indulgence in this connection during the next two months, when field work will take us to the Canadian Northwest?

In 'Everybody's Magazine' for June, President Roosevelt, as reported by Edward B. Clark, expresses his indignation that, after all that has been said of their inaccuracies, the books of W. J. Long should continue to be used in schools for supplemental reading.

After exposing some of Mr. Long's errors, Mr. Roosevelt remarks: "The preservation of the useful and beautiful animal and bird life of the country depends largely upon creating in the young an interest in the life of the woods and fields. If the child mind is fed with stories that are false to nature, the children will go to the haunts of the animal only to meet with disappointment. The result will be disbelief, and the death of interest. The men

who misinterpret nature and replace fact with fiction, undo the work of those who in the love of nature interpret it aright."

Is it the undeniable literary charm of Long's books, or the dearth of desirable nature stories, or the activity of his publishers which, in spite of their proved perniciousness, still keeps them on teachers' lists?

In the April number of 'The Nature-study Review,' a writer speaks of the "fascinating tales of the wilderness, as told by Long, and the delightful life-histories of Wabbles the Song Sparrow and Bismark the red squirrel as recorded by Walton the hermit of Gloucester," and couples them with the "works of Burroughs and Thoreau," a grouping which we believe will make truth-loving 'Oom John' envy Thoreau his resting-place in Concord's churchyard.

Discussion of this subject with one of the leading educators of the country brought from him the surprising opinion that in the city, at least, it is of more importance that nature books used in supplemental reading should be interesting than that they should be accurate; it being argued that the immediate object of such reading is to arouse the child's curiosity.

Admitting that few children in our city schools have an opportunity to test the accuracy of the information they receive in regard to animal life, is it desirable that they be given as true that which is known to be false merely because it is interesting?

Nature study is designed not only to make the child familiar with the commoner forms of life, but also so to train his powers of observation that he will see more widely and more accurately; and no form of nature study which has not science, and hence truth, for its foundation can be expected to endure.

THE mention of 'Everybody's Magazine' recalls, by the way, the interesting cover of the April number of this magazine, which depicted a Scarlet Tanager perched amid pussy-willows, a striking and original combination of an April flower and a May bird.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

IN JUNE

What may one say of June? So much is to be said that silence perhaps is best,—silence that we may pause and listen, listen intently and open the eyes wide, that nothing escape us. Why attempt to catalogue the pictures that are daily hung against the wall of the sky or set upon lichen-covered granite easels against hangings of deepest green, or those elusive ones that, being painted by the mist of sunrise, vanish in full day?

Why attempt to reduce the soloists and chorus of the great natural oratorio to a programme of names and titled performances. Suffice it to say that all the birds will be there, at least all that have escaped the dangers of winter, of long travel and the guns of unfriendly lands held by barbarous hands.

But one thing let us beg of June, daughter of Juno, and that is that her temper may be even and that she distribute her rain and sunshine with impartiality; for upon the disposition of June does much of the weal and woe of the season's bird-life depend. If long rains flood the meadows and marshlands, and weigh down the tree branches making the foliage heavy and sodden, death and destruction visit many bird homes. The young of the ground builders are either drowned or die of cold and damp; while the tree-nests, especially those of the Thrush tribe in whose composition mud is used, melt and give way, and oftentimes a little sodden heap under a branch is all that is left to tell what has been.

On the other hand, if June is 'unco' hot and dry, and the tender foliage withers, many song-birds of open nests are sufferers, holding up open, gaping beaks to their distressed parents. In such a June as this the bird-bath and the water-trough are blessings, and every bird-lover living in regions without brooks or ponds should keep one filled; and even if there is water near by, each orchard and garden should have its own supply close to the nesting trees.

With the poet, we would praise God for June,—but let us not forget that as it is the season of bird song, it is also the month of their greatest anxiety; and, while we are listening to the music and enjoying the grace of their every motion, let us endeavor to lessen their cares as much as possible by supplying nesting shelter for those who crave it and ensuring privacy for those birds who gather near our homes with pretty confidence that we will help them to escape the preying habits of their wilder neighbors of remote woods and fields.—M. O. W.

THE BALTIMORE ORIOLE

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 26

"Hush! 'tis he!
My Oriole, my glance of summer fire
Is come at last."—LOWELL.

We, who punctuate our reading of Nature's calendar with bird and flower rather than by the artificial figures of the almanac, give to March the Bluebird and Song Sparrow, the Redwing and the return of the Swallows to April—and to May and June (for so does the rush of growth and migration flood these months that they should be taken as a continuous sixty-day jubilee), the Wood Thrush, Catbird and Oriole.

In one reading of the matter the Baltimore Oriole should be first mentioned, for his voice is that of the bugler that heralds actual spring, the long-expected, long-delayed mellow period, distinct from the almanac spring, that, when it once comes to us of the middle and north country, is quickly absorbed by the ardor of summer herself. Also is this Oriole the gloriously illuminated initial letter wrought in ruddy-gold and black pigments, heading the chapter that records the season; and, when we see him high in a tree against a light tracery of fresh foliage, we know in very truth that not only is winter over, that the treacherous snow-squalls of April are past, but that May is working day and night to complete the task allotted.

For as the Indian waited for the blooming of the dogwood, *Cornus florida*, before planting his maize, so does the prudent gardener wait for the first call of the Oriole before she trusts her cellar-wintered geraniums and lemon balms once more to the care of mother earth.

His Name and Identity This Oriole has history blended with his name; for it is said that George Calvert, the first Lord Baltimore, tired and discouraged by many of the troubles of his Newfoundland colony, in visiting the Virginia settlement in 1628, explored the waters of the Chesapeake, where he found the shores and woods alive with birds, and, conspicuous among them, vast flocks of Orioles. These so pleased him that he took their colors for his own and they ever afterward bore his name—a fair exchange.

The Baltimore Oriole comes of a parti-colored American family—Icteridæ—that to the eye of the uninitiated at least would appear to be a hybrid clan drawn from all quarters of the bird world. Yet it is typically American, even in this variety; for what other race would have the temerity to har-



BALTIMORE ORIOLE

(UPPER FIGURE, MALE; LOWER FIGURE, FEMALE)

Order—PASSERES
Genus—ICTERUS

Family—ICTERIDÆ
Species—CALBULA

bor the Bobolink, Orchard and Baltimore Orioles, Redwing, Meadow-lark, various Grackles, together with the vagrant Cowbird, in the branches of the same family tree ?

One of the many welcome facts concerning the Oriole is the ease with which he is identified; and I say *be* advisedly, for his more industrious half, who is the expert weaver of the pair, is much the more somber of hue. In early May, or even as late as the middle of the month in backward seasons, you will hear a half-militant, half-complaining note from the high tree branches. As you go out to find its origin, it will be repeated, and then a flash of flame and black will shoot across the range of vision toward another tree, and the bird, chiding and complaining, begin a minute search along the smaller twigs for insects. This is the Oriole, *Icterus galbula*, as he first appears in full spring array,—his head, throat and top of back and wings black, except a few margins and quills that are white-edged. The breast and under parts, lower part of back and lesser wing-coverts are orange flame, while his tail is partly black and partly orange.

Two other tree-top birds that arrive at about the same time, one to remain and one to pass on, wear somewhat the same combination of red and black—the Redstart and the Blackburnian Warbler. But, besides being much smaller birds, they both belong to the pretty tribe of Warblers that, with a few notable exceptions, such as the Chat and Water-Thrushes, should be more properly called lispers, and not to be confused with the clear-toned Oriole.

Once the female Oriole arrives, usually several days after the
His Mate male, his complaining call, "Will you? Will you really truly?" gradually lessens; and after a few weeks, when nest-building begins, it quite disappears or, rather, is appropriated by the songless female, who, while she weaves the nest, is encouraged by the clarion song of her mate. The plumage of the female is brown and gray blended with orange above, the head, back and throat being mottled with black, while the under parts are a dull orange, with little of the flaming tints of the male.

Though the Oriole exposes himself more freely to view
His Nest than most of our highly colored birds, and in fact seems to regard his gift of beauty anything but seriously, he takes no chances, however, in the locating of his nest, which is not only from twenty feet above the ground upward, but is suspended from a forked branch that is at once tough yet so slender that no marauding cat would dare venture to it. This pensile nest is diligently woven of grasses, twine, vegetable fibers, horsehair, bits of worsted or anything manageable, and varies much in size and shape, as if the matter of individual taste entered somewhat into the matter. It has been fairly well proven that location enters largely into this matter, and that nests in wild regions, where birds of prey, etc., abound, are smaller at the top and have a more decided neck than those in

the trees of home lawns and orchard. Of the many nests that I have found and handled or else observed closely with a glass, the majority have been quite open at the top like the one pictured, and the only one with a narrow and funnel-like opening came from a wayside elm on the edge of a dense wood.

The female seems to be weaver-in-chief, using both claw and bill, though I have seen the male carry her material. It is asserted that Orioles will weave gayly colored worsteds into their nests. This I very much doubt, or, if they do, I believe it is for lack of something more suitable. I have repeatedly fastened vari-colored bunches of soft linen twine, carpet thread, flosses and the like under the bark of trees frequented by Orioles, and, with one exception, it has been the more somber tints that were selected.

In the exceptional case a long thread of scarlet linen floss was taken and woven into the nest for about half its length, the remainder hanging down; but, on resuming my watch the next day, I found that the weaver had left the half-finished task and crossed the lawn to another tree. Whether it was owing to the presence of red squirrels close by, or that the red thread had been a subject for domestic criticism and dissension, we may not know.

Be this as it may, in spite of the bright hues of the parent birds and the hanging shape of the nest that is never concealed by a branch upon which it is saddled, like the home of so many birds, an Oriole's nest is exceedingly difficult to locate unless one has noticed the trips to and fro in the building process; but once the half-dozen white, darkly etched and spotted eggs it contains hatch out, the vociferous youngsters at once call attention to the spot and make their whereabouts known, in spite of sky cradle and carefully adjusted leaf umbrellas.

If their parents bring them food, they squeal (yes, that is the only word for it); if they are left alone, they do likewise. Their baby voices can be heard above the wind, and it is only either at night or during a heavy shower, when a parent would naturally be supposed to be upon the nest, that they are silent.

As an adult, the Oriole lives on rather a mixed diet and
 His Food has a great love of honey; but, of course, as a parent he is, with his sharp beak, a great provider of animal food for his home, and to his credit must be placed a vast number of injurious tree-top insects that escape the notice of less agile birds.

Complaints are frequently heard of his propensity for opening pods and eating young peas, piercing the throats of trumpet-shaped flowers for the honey, and, in the autumn before the southward migration, siphoning grape and plum juice by means of this same slender-pointed bill.

Personally, I have never lost peas through his appetite for green vegetables, though I have had the entire floral output of an old trumpet vine riddled bud and blossom; and I have often stood and scolded them from

under the boughs of a Spitzenburg apple tree, amid the blossoms of which they were rummaging (perhaps for insects) but also scattering the rosy blossoms right and left with torn and bruised petals. Powell, in 'The Independent,' writes feelingly of this trait of the Oriole, thus:

"An Oriole is like a golden shuttle in the foliage of the trees, but he is the incarnation of mischief. That is just the word for it. If there is anything possible to be destroyed, the Oriole likes to tear it up.

"He wastes a lot of string in building his nest. He is pulling off apple blossoms now, possibly eating a few petals. By and by he will pick holes in bushels of grapes, and in plum season he will let the wasps and hornets into the heart of every Golden Abundance plum on your favorite tree. . . . Yet the saucy scamp is so beautiful that he is tolerated—and he does kill an enormous lot of insects. There is a swinging nest just over there above the blackberry bushes. It is wonderfully woven and is a cradle as well as a house. I should like to have been brought up in such a homestead."

It seems as if the Oriole must be the descendant of one of
 His Country the brilliant birds that inhabited North America in by-gone days of tropic heat, and that has stayed on from a matter of hereditary association; for in the nesting season it is to be found from Florida and Texas up to New Brunswick and the Saskatchewan country and westward to the Rockies, beyond which this type is replaced by Bullock's Oriole, of much similar coloring save that it has more orange on the sides of the head and the white wing patch is larger.

But, however much the Baltimore Oriole loves his native
 His Travels land, the climate and the exigencies of travel make his stay in it brief; for he does not appear until there is some protection of foliage, and he starts southward toward his winter home in Central and South America often before a single leaf has fallen.

THE BALTIMORE ORIOLE

How falls it, Oriole, thou hast come to fly
 In tropic splendor through our northern sky?

At some glad moment was it Nature's choice
 To dower a scrap of sunset with a voice?

Or did an orange tulip flaked with black,
 In some forgotten garden, ages back,

Yearning toward Heaven until its wish was heard,
 Desire unspeakably to be a bird.

—Edgar Fawcett

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Membership in the National Association

- \$5.00 paid annually constitutes a person a Sustaining Member
- \$100.00 paid at one time constitutes a Life Membership
- \$1,000.00 paid constitutes a person a Patron
- \$5,000.00 paid constitutes a person a Founder
- \$25,000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York,

Legislation

"The world is growing better—I know it. A great unceasing movement toward truth and goodness is carrying slowly forward ever the character of this great, mighty, mysterious humanity. How slow it is, but oh, how real it is, the study of the ages tells. And yet behold how the good causes fail. Behold how selfishness comes in to paralyze each great endeavor for the good of man. Alas for him who sees only this surface fact; who does not feel beneath it all the heave and movement of the whole race forward toward goodness. . . . The best is strongest and shall ultimately conquer."—*Sermon by Bishop Brooks.*

The above seems also prophetic of the conditions that now obtain in the bird world as well as in the realm of humanity. The stories which follow of the results obtained during the past few months show that there is a steady, although slow improvement in legislative conditions; although, on the other hand, how true it is that the selfishness of

individuals bars the way for a more rapid advance. The hope for the future lies in the fact that right always conquers in the end, and, as the Audubon workers know they are absolutely in the right in the work that they are doing for the preservation of the wild life of the country, our courage must not decrease and our determination to succeed must not be abated one instant. Just here it is important to call attention to the fact that our membership is entirely too small; among the eighty millions of citizens of this country are there not a few thousand who will join in the movement to preserve for future generations the wild life of North America? Members, publish among your friends the work of this organization and ask them to give us their support and influence. It is hard to see this civic effort languish when the aid of a few thousands of interested persons would make the Association a great power for good. Bear in mind that if the vigilance of the National Association is relaxed an instant all of the work already done will be dissipated in the twinkling of an eye.—W. D.

CALIFORNIA.—The most important gain in California in the way of legislation in the interest of wild birds and game protection at the session of 1907 is a hunting license law fixing an annual fee of \$1 for hunters who are citizens of the state, \$10 for citizens of the United States who are non-residents of the state and \$25 for aliens.

There are one or two defects in this law that will no doubt be remedied two years hence, but there was quite a pronounced prejudice in many parts of the state against a hunting license law of any sort, and it was only by the hardest possible work on the part of the friends of game preservation

that this was sufficiently overcome to obtain the law even in its present form.

The open season for Doves has been cut from seven and one-half to three months, but the season opens at least a month earlier than it should. There was an almost unanimous consent of the sportsmen of the state to cut the Dove season to the one month of August, and this could readily have been done if the State Board of Fish Commissioners had not, in its report, recommended the longer season, which was incorporated in the successful game bill.

There is a pronounced popular sentiment in California favoring the taking of Doves from the game list, and giving them protection at all times. It is generally conceded that no open season satisfactory to all sections can be made for the whole state, that does not subject these birds to being hunted during a part of the time they have young in the nest. On this account, possibly 75 per cent of the sportsmen favor the dropping of the Doves from the game-list, and probably three-fourths of the remainder are opposed to opening the season before August. It now opens July 15, two weeks later than under the old law.

The Doves, chiefly because of the practice of hunting them in the nesting season, are fast being decimated in many parts of California, and it will be necessary within a very few years to close the season entirely in order to preserve the species. The hunters of the state, with very few exceptions, recognize this fact, and regret that the later period was not fixed for the opening of the season by the amended law. A number of counties protect Doves (Santa Cruz prohibits their killing at any time).

The open season for Ducks is now October 1, two weeks earlier than formerly, and the bag limit has been cut from fifty to thirty-five birds to the hunter in one day. There is evidence that bag limits on Ducks have not been generally respected in California, save where public sentiment and active and efficient game-wardens compelled such respect, but it is hoped that the increase of funds now available for game preservation, provided by the hunting license law, will give such increased warden

service as will put a stop to many former notorious violations of this sort by those who make a business of killing Ducks for the market.

Several county district attorneys ruled last year that the Robin is a "game bird," and was, therefore, not protected by the non-game law as it then stood. This resulted in much Robin shooting in two or three counties at the north, but happily the law has been amended to remedy this defect.

Much to be regretted, an open season of four months has been made for tree squirrels, which during the past two years have been protected at all times. This was also a recommendation of the State Fish Commission, and one for which there was seemingly no demand from any considerable number of hunters.

Other open seasons for game and the old bag limit remain unchanged, except that the deer season now opens and closes two weeks earlier than under the old law.

A law was passed providing that any owner of one hundred and sixty acres or more of land may enter the same as a State Game Preserve for one to five years, and thus absolutely prevent hunting thereon for such a period. If the intent of this law is properly carried out, it will do very much to restore the wild game in many depleted sections.

A strong effort was made to remove protection from the Meadowlark, but this was defeated in the Senate by a vote of three to one. When this bill was introduced in the Legislature, the Audubon Society issued a special leaflet on the food habits, and thoroughly established benefits of this bird to the agricultural interests, and a large edition was circulated at Sacramento and among farmers' organizations throughout the state.

The only piece of really vicious bird legislation enacted at the late session is an amendment to the non-game-bird law, removing protection from "all fish-eating birds, except Sea-Gulls and Blue and White Cranes." The Audubon Society used every possible means, including an appeal to the State Fish Commission, to prevent this crime against the several species of sea and

bay birds, practically all of them harmless, thrown open to inexcusable slaughter by this act. It showed by the best of evidence that there was no demand from the fishing interests for such a retrograde step, that there was no complaint against any of these birds, with the possible exception of Kingfishers, and that the proposed legislation was in the interest of no class save plume-hunters and those who supply "specimens" for the curio trade. The legislation removing protection from these birds, many species of which are already nearly wiped out by market and plume-hunters, is roundly condemned by every recognized naturalist and deplored by all classes, except those who slaughter and exterminate bird-life for coin. The Audubon Society is making an effort to remedy this legislation, for which no doubt a great majority of the legislators voted unthinkingly, by an appeal to county supervisors to protect the Terns, Herons and other harmless water-birds, other than game-birds, by county ordinances, which supervisors have authority to do under the county government act.

A carefully prepared and up-to-date bill for the protection of non-game birds, amending the law passed two years ago, was urged by the Audubon Society. The bill was modeled after the best non-game bird laws recently enacted in eastern states, had been revised by a representative of the Department of Agriculture, at Washington, and was indorsed and approved by more than forty farmers' organizations of the state. It should have had the support of every person who favors an effective law to stop the further destruction of our harmless bird-life. By the efforts of Mr. Ludington, Assemblyman from San Diego county, and a member of the Audubon Society, the bill passed the Assembly with practically no opposition. In the Senate, it was favorably reported by the Fish and Game Committee and passed to the third-reading file, where influences beyond the society's control prevented it from being called up for final vote.

A thoroughly commendable amendment to the trespass law, providing for the proper protection of uninclosed and other private lands, was introduced and success-

fully carried through the Senate by Senator Walter F. Price, of Santa Rosa, but in the Assembly met a fate similar to that of the Audubon non-game bird bill in the Senate. Had adjournment been delayed a few days longer, both of these bills could probably have been passed.—W. SCOTT WAY.

In February BIRD-LORE, page 53, reference was made to the splendid efforts of Mrs. Alice L. Park, Chairman, Humane Education Committee of the California Federation of Women's Clubs, to establish Bird Day in the schools of California.

Mrs. Park was successful in the legislature in passing the bill, but the Governor vetoed it, much to the indignation of the club women of California.

His action in this matter was hard to understand in view of the fact that he signed a bill appropriating five thousand dollars to purchase rifles for schoolboys. The minds of some statesmen certainly work in queer channels.

California will have other governors in the future; let us hope that one may be elected who will recognize the great benefit to the school children of the state, of Bird Day and what it stands for, bird protection and good civics.—W. D.

CONNECTICUT.—The prospect for better legislation for the protection of wild fowl and shore birds in Connecticut seemed at first sight rather discouraging. Keepers of shore hotels, owners of boat liverys, and some of the older gunners have always been in favor of spring shooting, and resented any attempt to shorten the open season as being an unwarranted interference with their business. It was through the efforts of these people, and the resulting influence on the legislature, that Connecticut took a retrograde step, which extended the open season to May 1. The agent of the National Association undertook a journey along the coast of Connecticut, making inquiries among the older gunners, and all agreed that the number of wild Ducks and Geese had fallen off tremendously in the past sixty or seventy years, that their destruction within the last thirty years had been even more rapid than before that time, and that the

Teal, Black Duck, Wood Duck, and other valuable food Ducks were in danger of extermination. They agreed, also, that most of the shore birds had been depleted even more than the wild fowl. It was learned that gunners were beating about the marshes in April, in order to find the nests of the Black Duck and so secure the mother birds, and that the few Wood Ducks left were being waylaid and shot when they left the nest to feed. The Audubon Society of the State of Connecticut, through Dr. Van Name, chairman of its Committee on Legislation, hoping to remedy these conditions somewhat, had prepared a bill fixing the open season between March 1 and September 1. Before this could be presented, however, your president succeeded in introducing into the General Assembly, by the medium of Judge Elmer S. Banks, of Fairfield, two bills, one establishing a close season on wild fowl beginning January 1 and ending August 31, and another providing a close season on shore birds beginning January 1 and ending July 31.

The bill prepared by the Connecticut Audubon Society was then withdrawn, and the united efforts of the members of the National Association, members of the American Ornithologists' Union and those of the Connecticut Audubon Society were concentrated to secure the passage of the bills introduced by Judge Banks. A hearing on these bills and others relating to wild fowl and shore birds was held before the Committee on Fisheries and Game in the Senate chamber of the capitol at Hartford. This was one of the largest and most enthusiastic hearings ever held before that body. The large gathering was due mainly to the work of Miss Laura G. Jones, of Hartford, local secretary of the Connecticut Audubon Society, who sent out invitations requesting the friends of the birds to attend. The committee was addressed by your president, by Dr. T. S. Palmer, of Washington, and the Rev. Herbert K. Job, of Kent, Connecticut.

Many other Connecticut people spoke in favor of the bills, and there was no opposition. The sentiment of the large number present was not only unanimous in favor of

closing the shooting on Ducks, Geese, Brant and Swan from January 1 to September 1, but the majority were in favor of prohibiting the shooting of shore birds during that time, and thus making illegal all spring and summer shooting. The Committee on Fisheries and Game reported favorably on two bills containing the above provisions, and also extending the close season on Rail. Such opposition as appeared in the House was speedily overcome. The agent of the National Association did considerable work among the farmers, who usually may be depended upon to come to the rescue of the birds, when the necessity of protecting them is called to their attention, and the bills passed the House almost without a dissenting voice. By this time the Audubon Society, of Connecticut, was fairly awake to its powers and opportunities, and when the bills came up in the Senate, the full force of this strong organization was brought to bear. As a result, the friends of the bill in the Senate, led by Senator Briggs, of Middletown, passed the measure by a practically unanimous vote.

Great credit for the result is due to the president of the Connecticut Society; to Dr. Willard G. Van Name, of the Committee on Legislation, and to Mrs. Helen B. Glover, secretary of that society, as well as to Mr. E. Hart Fenn, house chairman of the Committee on Fisheries and Game, and to Mr. John H. Sage, of Portland, secretary of the American Ornithologists' Union. It is but just to add that many sportsmen, who care more for the preservation of the birds than for the gratification of their own desires, lent moral support to the movement.

The Governor signed both of the Audubon bills and they are now laws of the state, and Wild Ducks and Shore Birds cannot legally be shot, in the future, in the spring of the year in Connecticut.

This is another state that has been added to the list of those that have adopted the wise and beneficial anti-spring shooting law and is a distinct gain in Audubon work in the year 1907.—EDWARD H. FORBUSH.

MISSOURI.—In 1897, an effort was made to enact a comprehensive "game" law in

Missouri, but it had less than half a dozen supporters. In 1899, the friends of the birds and animals made a very forceful effort. The Audubon Society, of Missouri, many independent lovers of nature and sportsmen became thoroughly awakened. They realized that a commercial interest was blocking their efforts and exterminating our many beautiful and useful creatures. This commercial interest (the game dealers) managed to retain their attorneys in seats in the legislature, and block the passage of a protective measure through the sessions of 1901 and 1903. In 1901, an ideal law passed the House and would have passed the Senate, but the chairman of the committee to which it was referred pocketed it and it was not reported back from the committee. These were the sessions when it was known that the Legislature was openly and notoriously corrupt. Then came the session of 1905, when the "Audubon Bill" passed and was signed by the Governor, although the attorney and representatives of the dealers made strenuous efforts to prevent it. The game dealers then organized as the Missouri Country Produce Dealers' Association, and placed paid men throughout the state to create sentiment to repeal the law. They spent great sums in printing and postage, in defeating candidates adverse to their nefarious business and electing those candidates who were friendly. By trading, threatening and other corrupt methods, they passed through both branches of the Legislature a most grotesque caricature of a protective measure. And the Governor of Missouri, in order to obtain the friendship of these destroyers for his political advancement, signed this measure, a measure that allows the shooting of fawns and does in night-time or by day, the running of fawns or does with dogs, the seining of streams, the selling of Quail and other game; that destroys the warden service, and is absolutely without means of enforcement. The most unfair methods were taken by the game committees and the speaker of the House; and now the timid and innocent deer, the lordly Turkey, the magnificent Ruffed Grouse, the dear little Bob-white, the strange Woodcock, the strutting Prairie

Chicken, the beautiful Wood Duck and all other game of our picturesque wilds are to be erased from Missouri forever.—HARRY R. WALMSLEY.

NORTH CAROLINA.—Considerable improvement was made at the last session of the Legislature in the game laws. The Audubon Society's bill providing for a close season on Woodcock, and making it illegal to sell game-birds during that period of the year when they cannot be killed legally, was passed, and this will doubtless be the means of saving the lives of thousands of birds annually. As usual, a large number of local county laws were enacted, but, almost without exception, these were of a more restrictive character. A few counties absolutely prohibit the killing of Quail and deer for a term of years. Laws were also passed for several counties providing for the protection of English Pheasants for a number of years, and the State Audubon Society will conduct experiments in raising these interesting game-birds for stocking purposes.

The general sentiment of the Legislature was manifestly more favorable to bird and game protection than heretofore, a marked instance of the result of Audubon educational activity.

The Audubon Society of North Carolina has recently purchased four islands in Pamlico Sound in order to give permanent protection to the large colonies of sea-birds which breed there. One of these islands is locally known as "Royal Shoal" and the other three collectively are called the "Legged Lumps." These are the main breeding places of the sea-birds along the North Carolina coast, at least eight thousand young birds having been raised there last summer. The species breeding on the islands are Laughing Gulls, Royal Terns, Wilson's Terns, Least Terns, the largest colony of this species in the country, Black Skimmers and American Oyster-catchers. The islands are in the care of Game-warden N. F. Jennette, who patrols that territory throughout the breeding season, in the large Audubon launch "Dutcher."—T. GILBERT PEARSON.

SOUTH CAROLINA.—By the provisions of the recent state bird and game law enacted by the South Carolina Legislature, the members of the National Association of Audubon Societies resident in that state were incorporated and clothed with all the powers usually enjoyed by a State Game Commission. Under its provisions, the Audubon Society has the authority to select all the game-wardens of the state who will operate under its direction. Money gathered from the sale of the \$10 state non-resident hunters' license goes to the society, and this, together with the membership fee, constitutes the fund which the society will have for carrying forward its work.

On April 9, the society was formally organized under its charter and includes, among the members of the Board of Directors, some of the best known people of the state. President B. F. Taylor, of Columbia, has already begun work by renovating the present list of game-wardens, and is carrying forward the educational work begun by the National Association.—T. GILBERT PEARSON.

SOUTH DAKOTA.—In this state the model law was adopted during the present session of the Legislature, and an Audubon Society has been organized which bids fair to be both active and aggressive. Its president is Charles E. Holmes, of Sioux Falls, and the secretary is George A. Pettigrew, of the same place.

OREGON.—A bill amending the model law was introduced and, notwithstanding the hard work done in opposition to the amendment by the Oregon Audubon Society and others interested in the preservation of the wild birds of that state, it passed the Legislature. The bill was vicious in its character, since it provided that all protection should be removed from "Owls, Hawks, Butcher-birds, Magpies, Black-birds, Woodpeckers and Applebirds, and, further, that nothing in this act shall be considered as preventing farmers, gardeners and orchardists from destroying any birds other than game-birds when necessary to prevent destruction of crops from the ravages of birds."

Governor George E. Chamberlain, after a careful examination of the bill, discovered how prejudicial it was to the best interests of the state, and very wisely vetoed the measure.

The National Association will take steps to have a large amount of educational literature circulated and many bird lectures given in that state before the next session of the Legislature, in order that the people may fully understand the value of wild birds, and will also have the claimed "depredations" of birds thoroughly investigated, in order to see how much truth there may be in the charges made by the orchardists.

TEXAS.—The Texas Legislature enacted, and the Governor signed, two bills for the protection of the wild birds and wild animals of this state, one being a game-warden statute, and the other a reënactment of the general game and bird law passed by the Legislature in 1903, the new bill being practically the same as the old bill, the changes being mostly unimportant. Under the law, which will be operative next July, the non-marketing and non-transportation sections are retained in all their strength, and that we conceive to be the most important of all. The law enacted in 1903, without a warden system for its enforcement, was, nevertheless, a means of saving to the state its wild birds and game in a great measure, although thousands of dozens of Quail were marketed and water fowl were slaughtered and sold in carload lots. The Texas Audubon Society estimates that the old law, without the warden system, reduced the slaughter after its enactment fully 50 per cent annually, and that if it had failed of enactment in 1903, and the state left unprotected from that time until now, there would be no game birds and game animals in the state now in sufficient quantity to make it an object to look after them. Prior to 1903, the slaughter was progressing at a rate which would have resulted in annihilation, and after the model bird and game law was enacted, it was only through constant vigilance of the Audubon societies and kindred organizations that its partial

enforcement was secured. The protectionists rallied in 1905 and prevented the repeal of the non-marketing and non-transportation clause, driving the market hunters' lobby out of the field, and immediately commenced distributing literature looking to the reenactment of the law, which would have expired this year by limitation, and the enactment of the game-warden bill, the efforts of those seeking protection having been blessed with success almost to the extent of the desire of those who sought to afford protection to the wild birds and the wild animals.

It is true that we did not get all that we asked for, because the Legislature refused to exact a license fee on the resident gunners, placing the expense of the warden system entirely upon the non-resident gunners, which will reduce the funds for game protection fully 60 per cent. The law will be new, and the means of enforcing it insufficiently organized, and it is likely that a great many non-residents will enter Texas, take game and get out again without paying a cent. If so, the fund will still afford enough for a commencement, and as it is pretty certain that legislation in the future will continue progressive, and that the warden system will be improved with each succeeding legislature, we may congratulate ourselves that we have achieved something which will, in the end, result in an ideal condition in the Lone Star State.

Another matter which we regret is that the Legislature refused to reenact the section of the bird and game law which permitted of the taking of wild birds and wild animals for scientific purposes. That entire section was eliminated, and the consequence is that the Bureau of Biological Survey can not, after next July, send its experts into the state for collecting material and securing data for bulletins, which have in the past proved so valuable to the farmers and the people generally.

We shall strive hard to educate the people sufficiently to induce them to insist that their representatives and senators at the next Legislature amend the bill, so that scientific inquiry may be continued by the Biological Survey. The issuing of certificates for the

taking of birds for scientific purposes, as permitted by the old law, had been so shamefully abused that it was impossible to secure an exception in favor of the Federal Government in that respect. We tried hard, but we failed and we regret it. The Biological Survey had undertaken one particular work which was of inestimable value to the South. Its experts had already ascertained that forty-two birds were destroyers of boll weevil, and the investigations in the cotton fields are still in progress. The Audubon Society has been informed by the experts sent here by the Government that much important work can be accomplished before the certificates issued to them under the old law expire, and that the interval will be short in which the work must be suspended. We have no doubt that the next Legislature will amend the law, so as to allow that inestimable service to continue until it shall be demonstrated that the only way to eradicate the cotton-boll weevil and all other pernicious insects is to protect the birds, so that they can increase and multiply and carry out the mission for which they were created.—M. B. DAVIS.

How very necessary drastic game laws and efficient means for their enforcement are in Texas is forcefully portrayed in the following communication from one of the best friends the National Association has:

"In the second column of page 56 of the January-February BIRD-LORE is an account of the exterminating slaughter of wild fowl by Texas market-hunters.

"It must stir every bird-lover and every real sportsman to protest. It recalls my own observations there eight or ten years ago at ———, about forty miles north of ——— on the coast. It was then a famous place for Ducks, Brant, Geese and Snipe. It was an upland, rising but a few feet above great stretches of marshes—the latter an ideal winter home for such birds.

"Until I went there, I never had an adequate conception of what it was to be in a place where such birds were plentiful. Mallards, Pintails and Teal were most sought for by the market-hunters. My guide, the second winter, was named ———. He told me that the Mallards had grown so scarce

that he had given up hunting and gone to farming, except when he guided parties. I noted quite a falling-off of Mallards, although then they were plentiful to northern eyes. — was the most noted hunter there. Such a skilful 'shot' as he could easily get one hundred Ducks in a day. He said that, in previous seasons, there had been thirty days when he got more than two hundred Ducks each day. He and my companion and I shot ninety-two Snipe in one day—a sickening record. I vowed it would be enough for a lifetime, and I think it has been. I was there a few days each winter, and I am now ashamed to say, in February. Then, I was thoughtless of bird protection; never realized, nor had heard about the evils of spring shooting; it was an open season, and that sufficed. This I mention, as I believe many sportsmen have just that attitude and need only the persuasive, educational influence, and the information and reasons shown for the preservation of birds by the National Association.

"Down there the hunters shoot Snipe for market only when they can find them squatting on the ground, for to shoot single flying birds would require more time and ammunition than would be covered by the price received for the birds. My 'hunter' told me—and certainly not to brag, but in connection with market-shooting of Snipe—that, once, after a sleet-storm, when the marshes were covered with thin sleet, except in the muddy trails trod by the large herds of cattle, the Snipe squatted in rows along the trails, and there the men potted them in paying quantities. That was the occupation of these men. Why not gather the harvest when it was ready before them, was, I presume, their justification, if, indeed, they ever thought any was called for, for such destruction of that gamey little bird.

"Many sportsmen went there for Snipe, and, with one or two good dogs, could easily get one hundred Snipe in a day; and seldom did even sportsmen halt till the sun went down! Upon later visits to —, I heard that all such game as I have mentioned had diminished materially. In the vicinity of — was a famous wild-celery

pond which a rich banker had gotten possession of. From all accounts, and the fights—legal and physical—over the rights to access to this pond which this 'bouncer' of a sportsman had corraled and used as a show place for lions visiting —, and of his keeping a gang of men there to shoot for him and of his shipments to — and others, I judged this man as more guilty than the ordinary pot-hunter. They said he made lots of money out of the venture. I think his name is —, and probably I could ascertain positively. Perhaps, now, he may be opposing your efforts to have Texas enforce its non-export law, and to exact a law to prevent the sale of game and spring shooting. It really would not surprise me. We have individuals and clubs in Massachusetts—men of means, not real sportsmen it is true—who have 'ducking' and 'goose-stands' where they regularly have their care-takers shoot and sell birds to pay the expenses of, or make profits on, the 'stand.' This last, incidentally, is the cause of thinning-out the Geese and Black Ducks, which are an easy prey to the highly organized decoying artifices employed."

WISCONSIN.—A bill was introduced in the Legislature to repeal the anti-spring-shooting wild-fowl law in the state. The Fish and Game Commission and the Audubon Society of Wisconsin, and a number of other persons who are deeply interested in the matter, are combating the bill with all their power and will probably be successful in defeating the measure.

Wisconsin now occupies the proud position of being one of the first states to adopt the anti-spring-shooting law, and the position occupied by that state has always been pointed to by this Association as an example of excellent and wise legislation. Should a retrograde step now be taken there, the influence exerted will be very bad indeed in all other parts of the country. Wisconsin is so near the Chicago market, one of the great game-distributing points of the country, that there is undoubtedly a strong market-shooting influence that is at work in Wisconsin. There is no doubt that the great majority of the citizens of Wiscon-

sin are in favor of the wise and beneficial wild-fowl law now upon the statute books of that commonwealth, and the only persons who desire the repeal of the present excellent law are the market-hunters, who have no consideration for the future, but are simply trying to appropriate assets that belong to all of the citizens of the state and not to any individual.

Plume Sales*

The returns for the six plume-auctions held at the Commercial Sale-rooms, London, in 1906, are not encouraging reading for the bird protector. The numbers catalogued of Birds-of-Paradise and of packages of "Osprey" feathers were as follows:

	Osprey Feathers Packages	Birds-of- Paradise
February . . .	327	8,508
April	260	7,188
June	289	11,841
August	242	3,948
October	485	5,700
December	265	3,600

This would give a total of 1,868 packages of "Osprey," but, owing to the fact that the packages are of varying sizes, the actual quantity of feathers can be only very roughly estimated.

An average of between 20 and 30 ounces to the package seems to be a fair estimate, and at 20 ounces the total would be over 37,000 ounces, or, on Professor Newton's calculations, the feathers of nearly 150,000 birds. The total numbers of the Paradise skins is 40,785. In both these cases a percentage must be allowed for unsold plumes offered a second time; but the figures remain sufficiently discreditable.

Apart from Egrets, Herons and Birds-of-Paradise, the notable features of the sales were the enormous numbers of Sea-Swallows (Terns) and Kingfishers on sale, and the growing consignments of quill-feathers from Eagles, Buzzards, Pelicans, Albatrosses, Swans and other birds. Ladies are usually

under the impression that a "quill" must be a harmless ornament obtained from the farmyard.

The trade in quill-feathers was even more remarkable at the first sale of the present year, held on February 12; of Albatross quill-feathers one firm alone catalogued some 15,000, and also a very large number of "Osprey wing-quills."

Another feature was the 7,000 heads and crests of the Crowned Pigeon on the market. The two handsome species, the Crowned Pigeon (*Goura coronata*) and the Victoria Crowned Pigeon (*Goura Victoria*) are natives of New Guinea and adjacent islands.

They are nowhere very numerous, and have little chance of becoming so, as only one egg is laid. Some years ago the plume trade penetrated New Guinea in quest of them, but lately fashion has run on other species. Now it would appear that the tuft of feathers on the head, known as "the goura mount," is again the incentive to the persecution of the Crowned Pigeon, and ladies who are tempted with "pigeon" feather trimmings will do well to ascertain what manner of pigeon is meant. The number of Birds-of-Paradise catalogued was 4,328 light and 400 dark, nearly all of which were sold. For "Osprey" plumes the demand was less; 504 packages were offered. Fifty-three Emu skins were put up; the Emu is the Australian representative of the Ostrich, much hunted and now being hunted to extermination.

There were 138 Impeyan Pheasants from India, which "sold at higher prices."

AIGRETTES. — The legal battle that has been going on in New Orleans, relative to the sale of aigrettes, whether taken within or without the state, has probably been finally settled in favor of their *non-sale*. President Miller, of the Louisiana Audubon Society, who has been the head and front of the fight, wires this Association that "The aigrette case was decided in our favor and the entire non-game bird (model) law has been upheld." Will women still defy law and sentiment?

*From 'Bird Notes and News,' Vol. II, No. 5, 1907, London, England.

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Bird-Lore



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*Manuscripts intended for publication, books, etc., for review and exchanges should be sent to the Editor, at the American Museum of Natural History, 77th Street and 8th Avenue, New York City, N. Y.



Reduced facsimile of the reproduction of Horsfall's colored drawing of the Evening Grosbeak. Presented to every subscriber to Vol IX, 1907, of BIRD LORE. The original, printed on heavy plate paper, suitable for framing, is life-size.

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1. VARIED THRUSH, MALE.

2. VARIED THRUSH, FEMALE.

3. ST. LUCAS ROBIN, ADULT.

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A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. IX

JULY — AUGUST, 1907

No. 4

A Southern California Aviary

By H. L. SEFTON

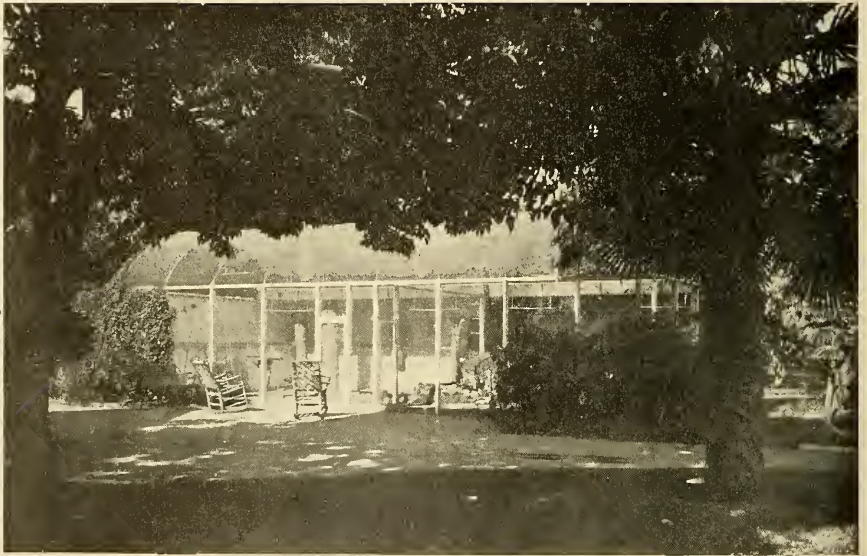
FOR over ten years the aviary which is the subject of this sketch has stood amidst the semi-tropical verdure, in the private grounds of the J. W. Sefton residence, in San Diego, California, where hundreds—yes, I think I may say thousands—of people from different parts of the world, have visited it. For years it was alone in its unique beauty, but now one sees others; for many have followed our hobby and taken up the study of birds, the climate of California being particularly adapted to the outdoor rearing of them.

The building is entirely open, save for the west and north end, and a strip of roofing, about twelve feet wide, that runs the full length of the building, over the nesting part. It covers an area of 20 x 40 feet, is built of one-fourth inch square-mesh wire, and has a wire partition through the center, so as to separate the tiny birds from their larger kin. Everything that love and thought can do for the comfort of the birds is done: there are pools of running water, low-growing shrubs, stumps of trees, swings and perches of all kinds; in fact, it is a home for the feathered people, which show their appreciation of it in song from the dawn of early morning until night wraps the world in sleep.

How did we begin? I will tell you: Many years ago—I think as many as twenty—a German Canary was given to a member of our family; he was a magnificent singer, a great pet and very tame. We always had a horror of small cages, so got him in a good-sized one, but left the door open in order that he could go in and out at his pleasure, until finally he went in only at meal time. The cage hung in the sun-room, and he flew about among the growing plants and vines perfectly happy. His favorite perch was on a clock that sat on the mantle in front of a large mirror in the living-room; here he would fly and sing to "the other bird," in the glass. He was a born flirt, and really behaved shamefully, sometimes getting so angry at the seeming impertinence of the fellow in the glass that he would fly right at him with mouth wide open. It was while watching these

antics we first conceived the idea of a mate for him, so we got 'Zip,' a pretty, motherly-looking bird.

We kept them in the cage for a few days and then opened the door, when the fun began. Don't tell me birds don't think! Why, Dick took Zip everywhere, into the parlor and out through the hall, on to the sideboard and the dining table, all his favorite places, and last, as a sort of crowning surprise, up on the clock, where he showed her the "other bird"; but he was completely nonplussed, for, instead of one other bird, there were two. Dick was furious; he ruffled up his feathers and was in for a great fight. Well, they finally went to housekeeping, *not* in the daintily lined wire nest provided for them in their cage. Ah, no! Dick was not that kind of a bird;



A SOUTHERN CALIFORNIA AVIARY

but very carefully and laboriously they picked out each thread that we had just as carefully put in, and carried them, together with many choice bits of fringe, etc., to an Indian jar that sat on a high shelf in the sun-room. They raised two families in Indian jars that season, and by the time Dick had shown the brood around, and we had rescued some from behind curtains, others from the backs of pictures, and discovered the whole lot asleep on the clock, we concluded that one bird loose in a house was very unique and interesting, that two birds were a good bit of a nuisance, but that a flock of nine was a calamity. So we decided to build them a house out in the yard, which we did; an 8 x 8 octagonal affair, that is now used as a jail for unruly members of the colony. The first prisoner was a Baltimore Oriole, sentenced for life for egg-eating.

At that time we had not thought of importing birds, but with the assistance of some of the neighborhood children, we tried raising young native birds. We raised, among others, about a dozen Redhead Linnets, and right here I want to tell a strange thing. The California Linnet is a pretty bird; the male's head and neck are a deep red, which, shading into the soft brown, makes an exceedingly smart-looking bird. This color does not show until after the first molt, so you can imagine our surprise when we saw the Linnets we had raised getting orange-colored heads. It must have been caused by a lack of coloring-matter we failed to supply in the food, for some old birds that we trapped, with perfectly red heads, changed to orange when the molting time came.

One learns a lot more by observation than by reading. We had very little real knowledge of birds, so bought and read eagerly all we could find on the subject; but we have, from our own experience, concluded that most of the articles are either written from theory or from a study of specimens of the taxidermist's art.

About this time we went abroad, and in our travels saw many odd and beautiful birds, so we decided to import some, which we did, and have continued to do up to the present time. I remember some little Finches from India arriving one day with a lot of others; they were round, fat little things, and made quite a fuss whenever they did anything, chattering with a shrill, rasping voice. We had a neighbor at that time building, and he, too, was round and fat, and made a lot of fuss and noise, so we dubbed them "the Doctors." That was ten years ago, and that pair of birds are the fore-parents of hundreds now, but we still call that variety "Doctors." Birds have characteristics the same as people,—some are good-natured and generous, others are crabbed, sour and mean. Watch a lot of them, and you will see.

We have raised birds which the books say never breed in captivity. We study them, make guesses at their wants and try to give them the environment they would have in their native haunts. For example, some birds never carry twigs; hence we must know that they don't build nests. For those birds we supply compartments, put a little sawdust in the bottom and, behold!—perfect contentment with no present indications of a race suicide! We raise hundreds of Grass Parrakeets. For them we have trunks of trees cut in sections and hollowed out, each section divided into from two to four compartments, each with an opening about the size of a silver dollar. These birds make no nests, but lay their eggs—some as many as six—right on the sawdust in the bottom, and commence sitting from the laying of the first egg, so that you will find, in the same nest, birds covered with pin-feathers and some just hatched. They are very cunning and make nice pets.

We have a pair of Rose Cockatoos, also from Australia, but, as these birds were never known to breed in captivity, we gave no thought to an

increase. One day we missed one of them,—they are so much alike we scarcely knew the male from the female. Several days went by and still the bird was missing. We had noticed that the remaining bird sat a great deal on or near a hollow log, hanging on the wall, so we decided to investigate. We reached down into the hollow, and such a howl as rose upon the air! Heavens, how that bird bit! We retired, vanquished, and left Mrs. Rosalie



AN INTERIOR VIEW

victor. Some weeks later she appeared, and we knew, from the hisses that issued from that hollow log, that her vigil had not been in vain; later on five youngsters came forth, thus proving there is more than has been writ.

Another member of the Parrot family is the Cockateel, a beautiful bird of soft shades of gray. The male has a pale lemon-colored head, a crest of lemon, and two bright orange spots on each cheek; he has a soft, musical whistle. We have raised quite a number. The young are the homeliest things imaginable. The only thing I can think of when I see them squirming, twisting their necks, and uttering their snake-like hisses, is St. George and the Dragon,—only in their case St. George is missing.

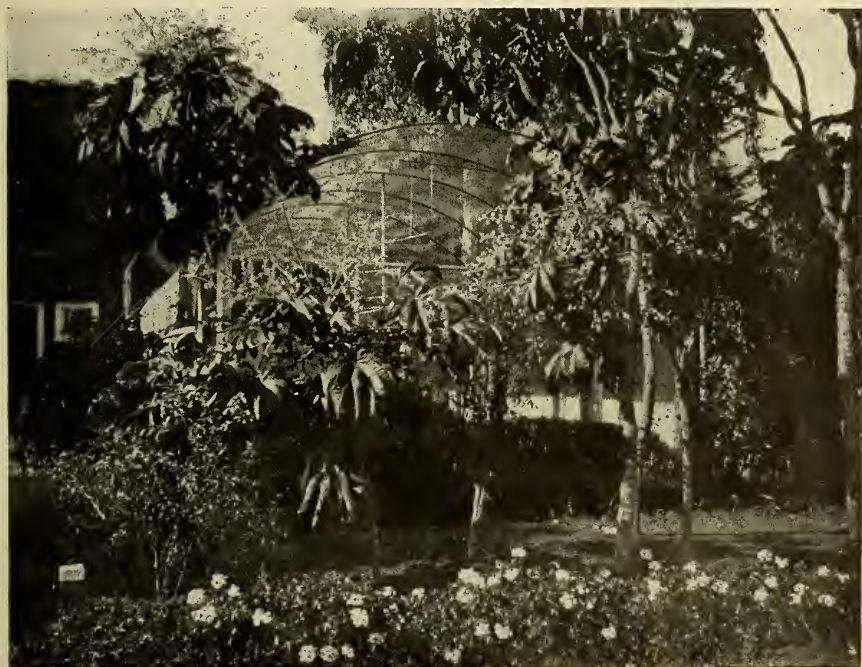
We have also the brilliant King Parrot, a peaceable, elegant bird; the mischievous, gorgeously colored Lory, with his acrobatic stunts; the Pink-crested Cockatoo and other commoner varieties.

Among the larger birds are three varieties of Pigeons. Two of them are game-birds of Australia—the Bronze and the Crested Pigeon; the other is

called the Bleeding Heart, rather larger than an ordinary pigeon, fuller breasted, of a dark gray-blue with a white breast, on which, directly in front, is a splash of bright red, that at a glance looks exactly as though the bird were wounded,—the illusion is perfect.

There are also several varieties of Doves, the rarest and most beautiful being the Blue-eyed Zebra of Australia, and the Red-eyed Pekin of China. The latter is the smallest Dove known, being, except for the length of its tail, about the size of a Norwich Canary.

The Finches are a study in themselves. There are many varieties, the smallest being the tiny Strawberry, which looks, as I heard a little girl say, "good enough to eat without either sugar or cream." It is the tiniest mite, exquisitely proportioned and with a song most wonderfully sweet and clear. I cannot tell, in this article, of all these interesting little birds as much as I would like to, for each kind has its own peculiar ways. For example, one tiny variety, commonly called 'Black-throat,' of the softest pastel shades of gray and brown, and with a bib-like collar of velvety black, makes a regular apartment nest. We have a series of little boxes about six inches long, with a small hole at one end of the sliding front. Into this little box they will carry the wild dried grass we provide, until the box is almost full; then, at the farthest end, they build a tiny nest in this dried grass, lining it on all



AMIDST THE SEMI-TROPICAL VERDURE

sides with soft bits of pampas plume, or any tiny feathers they can find. This is the 'lying in' room, as it were. Then down by the opening they weave the grass and any soft bits left over, into another nest. The eggs, usually four, are laid in the soft, dark nest, where the young stay until pretty nearly feathered; then they come down into the outer nest, where they stay until ready to fly out. They never go back into either nest again.

The Weavers, as their name implies, weave their nests, using the threads from the fan-palms. The Canaries build beautiful little nests among the calla lilies and in the marguerite bushes, but we find they have more success rearing their young in regular nesting cages away from the other birds. A Canary is a regular gossip, and will often neglect its home duties for the society of others.

Several years ago, we had a bird of the Grosbeak family. He was a beauty, gray with a bright scarlet head and crest. He never sang; indeed, I can't even recall a whistle, but he would sit for hours on a perch and we often remarked on his apparent loneliness. One day a gentleman who has traveled much and made a study of bird language, called and asked to see our collection. While looking at them he said, "I see you have an Brazilian Cardinal; does he sing?" I told him the bird was apparently dumb.

"Strange, strange!" he said. "Why, in their native home they are wonderful singers"—and then occurred a remarkable thing. The man, whispering to me to watch the bird, drew close to the wire, uttering a low, peculiar whistle. Instantly the Cardinal seemed to awaken, his crest lifted, he seemed to be listening; then, as the whistle continued, he answered sharply, eagerly, flew over to a perch by the side of the wire from whence came the whistle, and broke forth into a perfect torrent of melody.

The gentleman called a number of times afterward, and at each visit the bird sang to him, but never, as far as we know, at any other time. When the traveler's visits ceased the bird again lapsed into silence, and a few months later he died,—I always will believe from homesickness, for perhaps in his far-away home across the seas another lonely bird called vainly for his mate.

The Redbird, or Cardinal, is a remarkably handsome bird, but of so jealous a disposition that it is impossible to keep more than one pair in the same enclosure. You can put a dozen males together and all is peace and harmony, but put one female in and it is simply a survival of the fittest; so we have but two pairs—one on each side of the aviary. The female of one pair is as fine a singer as her mate, and he is a Caruso. They build fine nests, lay eggs and hatch their young, but never raise them.

Of all our birds I think we love the Robins best—perhaps because their voices recall the childhood home so far away, for whenever I hear a Robin's call I seem to hear the voices of old friends, see their faces and smell the blossoms from the apple orchard close by. We have Robins in San Diego

but only for a very few weeks in early spring; they simply stop to say 'Howdy' on their way to other lands. We had two Robins in our aviary—Rob and Bob. The latter was a rarely intelligent bird; he would stand with his head on one side and listen intently while the Skylark sang, or a Nightingale trilled, and then, at first very softly, he would try the notes over and over until he learned many of them. He knew my footsteps, and before he saw me would call a welcome. The many visitors to the aviary naturally gave more attention to the rarer birds; but one day when a gentleman visitor and I were standing looking at them, Bob walked gravely up and commenced his wonderful song. In amazement the gentleman listened, and then turning, asked, "Isn't that bird just an ordinary Robin?" Most indignantly I replied, "Indeed not; that bird is a most *extraordinary* Robin." We still have Rob, for, as is always the case, those whom the gods love die, and poor Bob sings no more for us. We laid him away as befitted so rare a bird, his casket a dainty white box filled with the petals of the fragrant La France rose, among which we laid him, and then buried him at the foot of a royal palm.

With over six hundred birds to feed, the question of proper food is no small one. We mix in large bins, built for the purpose, our own seeds, buying it direct from the importers in great sacks, and accepting only clean, bright seed. We use mostly canary and millet, with a little hemp in winter (which is very fattening), some sunflower seed, wheat and cracked corn. We have little rustic tables on which, twice a day, the seed is placed, and each bird takes what best suits its fancy. We always have cuttlebone and crushed shell scattered about, and once a week a little plate of raw ground beef is put on each side; those that need the meat eat it, others leave it alone.

One can learn much from the study of birds. They teach us virtue, generosity, kindness, gratitude—all those things that go to make living worth while. Many would glance at those birds, perhaps see nothing in them and pass on; others would be attracted by their plumage, by their song, by the beautiful whole of the great cage, with its tropical setting filled with life and song; but the student, he who sits and watches and studies, can learn much.

Briefly I will try to prove all I claim for them. The birds do not, except on rare occasions, hybridize. Each stays by his or her mate, each bearing his share of the burden and responsibility of the family. They are generous to the stranger that alights on the wire, going to him, giving him a friendly greeting,—so much so that on more than one occasion strange birds have of their own accord, after several visits through the wires, hopped down, and into, the half-open outer door (it is made double, one swinging out, the other in) and gone in to dwell among them; and surely it shows kindness to feed a nestful of half-starved babies they never saw before, and

I have seen that done. I had found four young Linnets, half-grown, some cruel boys had taken from their nest and left on the sidewalk to die, and, not knowing what to do with them, decided to put them in the aviary and see what would happen. What did happen was a great surprise. First one Canary and then another flew down. *Peep! peep!* the young called, but received nothing. The young birds' mouths meanwhile were wide open; then down came a female Linnet. She seemed to take in the situation at a glance, flew over to the feed tray, ate greedily, and then back to those yawning mouths, and she fed those birds until they were satisfied, and subsequently raised them. Could there be greater kindness than this? As for gratitude, birds are full of it; for everything you give them they thank you. If an apple, a crisp lettuce-head or a cluster of sweet alyssum or nasturtium is put within their reach, they pipe a word of thanks before they eat.

Our family, large as it is, is a happy one; there is little or no quarreling, for there is plenty of food and room for all,—only at eventide, when the sun begins to sink behind Point Loma, and the sea and sky is a mass of gorgeous coloring, then they scold a little. Perhaps some one, unmindful of the rights of others, has chosen the very particular limb or corner that belongs to some one else, and for a few moments there is discord—for each bird has his or her sleeping place—but gradually there steals a silence and, as the night shadows creep softly, from out of the west comes a crescent moon, that, peeping down shyly through the branches of the camphor tree, sees only the great cage with no signs of life within. All is still, save for a soft twitter now and then, like the last sweet words from a little child's lips before he drops off to sleep.



A Report on the Nesting Birds in the Vicinity of Riverview Park, Allegheny, Pa., for 1906

By WILLIAM G. PITCAIRN

THESE observations were all made in the vicinity of Riverview Park, Allegheny, Pa., the greater part in the park.

Riverview is a natural park of about two hundred and fifty acres, mostly wooded hills and much hawthorn growth, situated about two and one-half miles from the city of Allegheny. Being a picnic park, there is something going on almost every day during the spring and summer, and I think that this fact tends to limit the number of breeding birds; but, in spite of the conditions, the birds seem to prosper fairly well, their chief enemy being the small boy, who wantonly destroys many nests.

There has been a considerable increase, I think, in the number of birds in this locality, particularly in the cases of the Baltimore Oriole, the Downy and Hairy Woodpeckers, and the many species of migrants.

SPECIES	Number of nests found.	Inaccessible nests.	Nests which turned out successful.	Nests destroyed by other birds	Nests robbed or destroyed by persons.	Nests destroyed by a storm or like calamity.	Nests deserted by their owners.	Nests the history of which was not recorded.
Mourning Dove	2		1		1			
Yellow-billed Cuckoo	1						1	
Red-headed Woodpecker	2	2						
Flicker	4	1	2		1			
Nighthawk	1				1			
Crested Flycatcher	1				1			
Wood Pewee	1		1					
Baltimore Oriole	5	5						
Chipping Sparrow	4		2		1		1	
Field Sparrow	1		1					
Song Sparrow	3		3					
Rose-breasted Grosbeak	1		1					
Red-eyed Vireo	2				1	1		
Catbird	8		4		3			1
Brown Thrasher	2		1				1	
House Wren	16	3	16		1		2	
Blue-gray Gnatcatcher	2	1						
Wood Thrush	3		1		1		1	
American Robin	22	2	9		7		3	1
Bluebird	14		6	4	4			
Total	95	14	43	4	22	1	9	2

Some breeding species of which no nests were found—Ruby-throated Hummingbird, Northern Yellowthroat, Ovenbird, Yellow Warbler, Towhee, Vesper Sparrow, American Goldfinch, Chimney Swift, Indigo Bunting, Cowbird.

Bird Protection in Italy as It Impresses the Italian

By FRANCIS H. HERRICK,
Author of 'The Home Life of Wild Birds'

I

I WISH it could be said that Italy was at last beginning to awake to the necessity of protecting its bird-life, but thus far the efforts of a few ornithologists and humanitarians seem to have been of little avail.

Individual protests of the strongest kind have been made; international congresses have been held and stringent laws proposed, but little has been accomplished. The annual hecatombs of song-birds are still offered up, and the great peninsula of Italy, famed for centuries as one of the most beautiful and fertile spots of the earth, which should be teeming with bird-life at all seasons, is well-nigh desolate.

In a former article (in *BIRD-LORE*, November-December, 1906) I spoke of the general absence of bird-life in Italy as it impresses an American traveler and resident in that delectable country. Italian birds are trapped and shot in incredible numbers, especially during the spring and fall migrations, without respect to kind, size or habits, and are regularly sold in the markets as food for man and beast. Comparatively few birds are thus allowed to breed, and outside of the limits of certain cities, no adequate or uniform protection is afforded those which succeed in rearing young on Italian soil. There is no strong public sentiment in favor of the birds, and their service to agriculture is doubted. We showed that, in consequence of the destruction of birds in Italy, the little insect-eating lizards had undoubtedly increased, that they form a vast army, enlisted to aid the farmer by helping to save his crops; yet, in spite of the reptile brigades, many districts suffer, and famine is not unknown. But the Italian might reply: "You are jumping to conclusions too fast; there is a fatal flaw in your reasoning; lizards, like birds, are indiscriminate destroyers of insects; how can you know that they both do not effect more harm than good, or, at least, no less harm than good by destroying parasitic and other insects beneficial to agriculture?" We shall meet this question again. It goes to the very root of the problem, and may well stagger any one who has accepted a sentimental solution to this large problem, without question.

Before considering remedies for this hard lot of the birds, we will let the Italians speak for themselves. The subject is wide-reaching, and I must depend upon relatively few sources for information, but these are suggestive, and, so far as they go, seem to be authoritative.* I made a number of visits to the University of Rome to examine the excellent collection of stuffed birds in its museum, which forms a very useful and instructive

*It should be added that my observations in Italy were made in 1903-4, but, so far as I am aware, the fortune of the birds has not materially changed since that time.

exhibit. A curious fact about this collection, which furnishes unimpeachable testimony of the ruthlessness of Italian pot-hunters, is that a very large proportion of these specimens, great or small, common or rare, were obtained from the Roman markets, and are often thus marked (for example, "*Mercato al Pantheon*") with the date. Besides the common song-birds of Europe there were Grebes, Loons, Egrets, Herons, Gulls, and many others too numerous to catalogue here which found their way to the markets in Rome at various times of the year.*

The curator of the museum informed me that the smaller birds were protected from April 15 to August 15, the close season for water-fowl being shorter. As we shall see, different regulations have been in force in different provinces, but the result does not seem to have been to preserve the birds or to augment the bird-life of the country, but rather to improve the business of the gunners and snarers at other times. My informant would not admit that the killing of wild birds had led to any injury of vegetation or of crops.

Further, I interviewed the director of the Royal Institute of Forestry at Vallombrosa, and submitted to him a series of questions upon the subject of bird protection in Italy, but this kindly man was unable to give me any information on the subject. The idea of protecting the lives of wild birds seemed as foreign to his thought as the "canal system" of the planet Mars. "*Quod semper, omnibus, ubique,*" what has always been done by every one, everywhere, seemed to him eminently proper. The director knew that the practice of killing song-birds was very old, but he thought it did no harm, and he could not refer me to any literature upon the relations of birds to man.

Sig. Nigro Licò has written an interesting manual † on the protection of animals, from the standpoint of an Italian, and Professor Antonio Berlese, ‡

*It would require a far greater familiarity with the birds of Europe than I possess to identify a large part of those offered for sale in Italian markets, especially when the bodies of the victims are plucked or even skinned, as is sometimes the case. I will note here a few of the kinds seen in the Roman markets in 1903-4, concerning the identity of which there was little or no doubt. When the Latin name is given, the common Italian one follows in brackets: *Turdus musicus* (*Tordo*, the name used indiscriminately for various species by the populace), Song Thrush, February 29. *T. pilaris*, Fieldfare; sold at 8 cents apiece (in markets apparently under the name of *Grives savoyard*), February 29. *Erythracus rubecola* (*Pettiroso*), Robin Redbreast; seen tripping about the Medici gardens, March 9. *Vanellus cristatus* (*Pavoncella*), Lapwing or Plover; seen on the marshes in Holland in early September; very common in the Roman markets from January 1 to April 1; sold in the markets, and hawked all over the city in long strings, bringing ten to twenty cents apiece. *Gallinago caelestis* (*Beccaccini*), on sale at Ponti's on the Corso at twenty cents each, February 29. *Allodola*, a large Finch streaked all over with umber and buff, to be seen in great piles in the markets toward the last of February and in March. About twenty-five other species were more or less common in the markets of Rome at some time of the year.

† *La Protezione degli Animali* (Manuali Hoepli), Milano, 1902.

‡ *Bolletino di Entomologia Agraria*, anno VIII, Num. 5-9. Padova, 1901.

director of the Royal Station for Agricultural Entomology in Florence and a distinguished entomologist, has very decided opinions upon the relations of birds and insects to agriculture. Aside from every question of sentimentality, he considers it an open question whether wild birds are not, upon the whole, more destructive than useful in their relation to insects, and thus to the farmer and his crops. He considers that predatory and parasitic insects are quite capable in most cases of controlling injurious species, while many of these really useful agents are destroyed by birds*. This naturalist is now engaged upon a treatise on insects, the concluding volume of which will deal with the relations of insects to man. We may examine his views more fully at some future time, but, since the latter work is not yet completed and his earlier writings are not readily accessible, we shall follow for the present the compilation of Licò.

Licò devotes a chapter to the relation of birds to agriculture in which he weighs the opinions of Italians both in favor of the birds and against them, taking a stand rather guardedly with the latter. In the following paragraphs I shall translate freely or literally from Licò, or even paraphrase his remarks, in order to present his meaning or to define his position and that of others upon this important question. Quoting from a paper delivered by Comm. C. Durando before the National Zoöphile Society of Italy in 1899, he says:

"In Italy, while the olive fly and the piralidi † cause annually losses of several millions of francs, there is a furious hunt after birds of every kind with firelocks, drag nets, bird-lime, snares, as well as mirrors, bird-calls, artificial decoys, and even with birds caged and blinded for the purpose. At every period of the year, without regard to the laws which prohibit it, hunting is carried on. The prey is sold with impunity in the public markets in the close season, and, what is worse, they do not spare the nests of young birds, not even those of the poor Swallows. It is estimated that in all Italy the annual hecatomb amounts to ten millions of individuals, among which the Landsteiner of Wiholsburg reckons three millions Swallows.

"As a result of this, one should not wonder at the fact that not only in Italy, but also in foreign countries and especially in Germany, the alarm has been sounded and has spread from one state to another so that it has been turned into a kind of proverb which one hears everywhere repeated; 'The birds are the best allies of the farmer; let us protect the birds.'

"One of the most fervent of our ornithologists is Sig. C. Ohlsen. Animated with a passion and a persistency worthy of better success, if not a better cause, he does not limit his exertions to lectures on this subject,

*For the reference to Professor Berlese's work and for this expression of his views I am indebted in the first instance to the courtesy of Dr. L. O. Howard, Chief of the United States Bureau of Entomology, and later to Professor Berlese himself.

† Lepidoptera (moths and butterflies), of which we are told in another place that there are twenty-eight genera in Italy, and that all of them are very injurious to agriculture, especially to the apple, to hemp, and to the vine.

but, with the aid of a political press, tries to scatter his ideas among the people. His various articles which have appeared for this purpose in the journal 'Il Sole' of Milan present ample details for confirming those principles which are briefly stated here. He further shows how the destruction of forests, no less than shooting, has led to the decrease of birds and the consequent multiplication of insects."

Under the heading of "Friends True and Imaginary," Licò continues: "Regarding this maxim a recent entomological school has attempted to establish the two following cardinal ideas: (1) The enemies of injurious insects should be sought in the order of insects, and (2) insectivorous birds destroy not only injurious but useful insects as well. In support of the last thesis, the remarks of the distinguished ornithologist, Dr. T. Salvadori, delivered to the Chamber of Deputies in Vienna, on December 9, 1891, are quoted in part as follows: 'You must have heard, O gentlemen, repeated a hundred times the eternal refrain—"Protect the birds! They are very useful, because they destroy a great quantity of insects!" In regard to this question, I would like to ask upon what kinds of insects do the little birds chiefly feed, since the merit of their activity hangs upon this question; in which of the two warring armies do they select their victims? Do they feed chiefly upon the destroyers of our woods and fields? With all security and determination, I answer, No!'"

Licò then observes that the birds which devour harmful insects should be preserved, while those which feed upon useful kinds should be destroyed as quickly and as painlessly as possible. It is recognized that the question of the utility of wild birds is a complicated problem, because it embraces various elements. In order to decide whether a bird is useful or injurious, we must inquire, says Licò, first, whether the products of agriculture or insects themselves are its prevailing food, and second, whether such insects are in a greater degree useful or injurious under all conditions. Lists of the useful and harmful birds are then given as approved by an international commission for the protection of birds and agriculture, which sat in Paris in 1895.*

While this classification of the good and evil may be unjust or inaccurate, on the other hand, says Licò, the figures which Sig. Ohlsen has set down as the measure of the loss to Italy through the abuse of hunting do not have the appearance of accuracy. In this regard the 'Naturalist's Bulletin' (Sienna, 1896) offers the following comment: "Dr. Carlo Ohlsen, who has very decided views in regard to the losses of agriculture due to hunting, in an article published in a journal referred to above, recommends, in his usual style, excessive rigors for the sport, and says that while the public treasury received only 250,000 lire (francs) from the sale of the hunting

*In the class of birds condemned as injurious to agriculture, to hunting or to fishing are Eagles, Kites, Hawks, Goshawks, Falcons, Owls, Crows, Magpies, Jays, Herons, Bitterns, Pelicans, Moor-hens and Coots.

permits, agriculture incurred a loss of 25,000,000 lire at least. How does the distinguished Sig. Ohlsen prove his estimate of this damage? Besides proof to the contrary, we maintain that this sum is wholly imaginary, because we believe that this gentleman cannot be in a position to distinguish the utility from the harm which birds bring upon the cultivated plants by feeding on insects, some of which are certainly of much more use to agriculture than a few birds."

The same sheet for November 15, 1897, further expresses its views upon the subject as follows: "As we have remarked on other occasions, there are most estimable persons and distinguished writers who fall into contradiction in their efforts to prove the utility of birds and the need of excessive measures in order to protect them, the outcome of which would bring more harm than good to Italy. Here is another example of their efforts: 'An esteemed sportsman and writer upon sporting matters has published in a periodical of sport a plea for a single hunting law, and in it we find the following remarks: "The immense slaughter of little birds which is carried on in autumn by means of nets, especially in upper Italy, arouses everywhere even in foreign countries the fiercest protests."'

"There are millions of pretty little birds which hunters destroy every year by carefully crushing the cranium. In order to form an idea of this slaughter, it is sufficient to walk at this season (October and November) in the market place at Bergamo and at Brescia. There are to be seen, Robin Redbreasts, Thrushes, Sparrows, and other kinds piled up like grain along the walls. Pass at once one good law that shall put an end to such barbarity and such insane destruction. And here it is understood that this good law should be of such a character as to prohibit absolutely the use of the nets in hunting everywhere."

Now hear Lico's comment upon these sane remarks: "Let us ask if, after so many, many years that hunting has been carried on by the use of nets, after our fields have become less and less suited as covers for the poor little birds, after that the government has shown that it is absolutely unable to protect the birds during their reproductive period among us,—if after all this there can still regularly occur that enormous slaughter of millions of little birds, so that they can be seen in the markets like sacs full of grain, then why condemn absolutely hunting by means of nets, since by this very showing the method of hunting has not yet caused grave damage? Why renounce a thing certainly useful in order to substitute another which is very problematical?"

I have given this long and almost verbatim translation in full, because it illustrates the kind of argument which is sometimes used, and used no doubt with a certain degree of sincerity, to bolster up a bad cause. It is a sad case of the blind leading the blind, for the entire bottom of this kind of argument drops out the moment we consider the fact that the present great

destruction of bird-life in Italy falls not upon the resident species which alone belong to the Italian soil, but upon the migrants,—the birds of passage which belong to the rest of the world. Owing to the compass-like precision of their instincts, one and all have kept for ages to the fatal overland route in passing the peninsula of Italy on their migrations. The resident species are as dead as the ancient Romans themselves, who fortified the Capitoline Hill or built the Colosseum. When the migrants really give out, Mr. Editor, so that they are no longer piled in your markets like grain, it will be a sign not that "grave damage" has been done to Italy alone, but that a large part of the bird-life of two continents has been wiped out. In discussing the relation of birds to man, the migratory instincts, and the relation of the country to the rest of the world, are just as important as the food habits. Where do the millions of Swallows and the smaller migratory song-birds, which are annually slaughtered for food in Italy, come from, if not from central, northern, eastern and western Europe, and where do many of them go, if not to Africa by way of Italy and Spain?

(To be concluded)



WOOD THRUSH ON NEST

Photographed by F. E. Howe, Sterling, Ills., June 11, 1906

The Massachusetts Audubon Society's Bird-Lists

ONE of the means employed by the Massachusetts Audubon Society to interest its members in the practical side of bird study is an invitation to make lists of the birds noted in the state during the year, blanks being furnished for the purpose of properly recording observations. The best ten lists received by the secretary for the Society for the year ending December 31, 1906, were made by the following members: Lidian E. Bridge, West Medford, 184 species; James L. Peters, Jamaica Plain, 164 species; Anna K. Barry, Dorchester, 138 species; Percival S. Howe, Jr., West Newton, 138 species; Louise Howe, Brookline, 116 species; Henry H. Lowell, Newton Centre, 115 species; William T. Barker, Jamaica Plain, 111 species; Bertha Langmaid, Boston, 108 species; Samuel Dowse Robbins, Belmont, 86 species; Georgianna M. Wheelock, 63 species. The two lists first mentioned are published herewith.

Name of Species	List of Birds observed by Lidian E. Bridge, West Medford, Mass., from January 1, 1906, to Jan- uary 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Holboell's Grebe	Nahant	Jan. 6	Nahant	Feb. 3
Horned Grebe	Middlesex Fells	Oct. 22	Ipswich	Oct. 20
Pied-billed Grebe	Middlesex Fells	Sept. 21	Jamaica Pond	Oct. 24
Loon	Nahant	Jan. 6	Nahant	Feb. 3
Red-throated Loon	Nahant	Jan. 6		
Black Guillemot			Nahant	Oct. 6
Parasitic Jaeger	Ipswich	Aug. 29		
Kittiwake	Ipswich	Nov. 9	Ipswich	Nov. 17
Great Black-backed Gull	Middlesex Fells	Jan. 21	Brighton	Jan. 13
Herring Gull	Medford	Jan. 7	Boston	Jan. 1
Ring-billed Gull	Ipswich	Nov. 17	Boston	Sept. 29
Laughing Gull	Muskeget	July 28	Vineyard Haven	Aug. 15
Common Tern	Muskeget	July 28	Vineyard Haven	Aug. 15
Arctic Tern	Muskeget	July 28		
Roseate Tern	Muskeget	July 28		
Least Tern	Muskeget	July 28	West Tisbury	Aug. 31
Gannet			Revere	Jan. 20
Double-crested Cormorant	Ipswich	Nov. 9	Ipswich	Oct. 20
American Merganser	Middlesex Fells	Mar. 11	Newton	Jan. 13
Red-breasted Merganser	Nahant	Jan. 6	Revere	Feb. 17
Mallard	Middlesex Fells	Oct. 22		
Black Duck	Middlesex Fells	Apr. 8	Natick	Apr. 7
Red-legged Black Duck	Middlesex Fells	Jan. 21	Cambridge	Mar. 14
Blue-winged Teal	Middlesex Fells	Apr. 8		
Scaup Duck	Nahant	Jan. 6	Nahant	Feb. 3
Lesser Scaup Duck	Squantum	Apr. 14	Squantam	Apr. 14
American Golden-eye	Nahant	Jan. 6	Boston	Jan. 1
Buffle-head	Squantum	Dec. 19	Nahant	Dec. 27
Old-squaw	Nahant	Jan. 6	Revere	Jan. 20
American Scoter	Nahant	Feb. 22	Revere	Feb. 17
White-winged Scoter	Nahant	Feb. 22	Revere	Jan. 20

Name of Species	List of Birds observed by Lidian E. Bridge, West Medford, Mass., from January 1, 1906, to January 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Surf Scoter	Nahant	Jan. 6	Nahant	Feb. 3
Ruddy Duck	Middlesex Fells	Oct. 22	. . . . .	. . . . .
American Bittern	Belmont	May 5	Ipswich	May 19
Great Blue Heron	Ipswich	May 19	Ipswich	May 19
Green Heron	Middlesex Fells	May 20	Dedham	May 5
Black-crowned Night Heron	Middlesex Fells	May 20	Morton Marshes	May 8
Virginia Rail	Cambridge	June 5	Cambridge	May 25
American Coot	Cambridge	Nov. 3	Jamaica Pond	Oct. 24
American Woodcock	Medford	Apr. 8	. . . . .	. . . . .
Wilson's Snipe	Medford	Mar. 18	. . . . .	. . . . .
Pectoral Sandpiper	Ipswich	Aug. 30	. . . . .	. . . . .
White-rumped Sandpiper	Ipswich	May 23	Chilmark	Aug. 18
Least Sandpiper	Ipswich	May 19	Ipswich	May 19
Red-backed Sandpiper	Ipswich	Sept. 28	Nahant	Oct. 6
Semipalmated Sandpiper	Ipswich	May 19	Ipswich	May 19
Sanderling	Ipswich	May 19	Ipswich	May 19
Greater Yellow-legs	Cohasset	May 30	Ipswich	May 19
Yellow-legs	Ipswich	Aug. 17	West Tisbury	Aug. 24
Solitary Sandpiper	Middlesex Fells	May 18	Franklin Park	May 18
Bartramian Sandpiper	Ipswich	Aug. 17	Chilmark	Sept. 8
Spotted Sandpiper	Middlesex Fells	May 11	Franklin Park	May 4
Black-bellied Plover	Ipswich	May 19	Ipswich	May 19
American Golden Plover	Nahant	Sept. 27	. . . . .	. . . . .
Semipalmated Plover	Ipswich	May 23	Chilmark	Aug. 24
Piping Plover . . . . .	. . . . .	. . . . .	Chilmark	Aug. 24
Ruddy Turnstone	Nahant	Sept. 27	. . . . .	. . . . .
Bob-white	Middlesex Fells	Mar. 11	Franklin Park	Jan. 10
Ruffed Grouse	Middlesex Fells	Mar. 31	Holden	May 12
Marsh Hawk	Middlesex Fells	Apr. 27	Ipswich	May 19
Sharp-shinned Hawk	Cambridge	Apr. 28	Franklin Park	Jan. 2
Cooper's Hawk	Middlesex Fells	May 7	Natick	Apr. 7
Red-tailed Hawk	Medford	Mar. 11	Natick	Apr. 7
Red-shouldered Hawk	Middlesex Fells	Feb. 25	Morton Marshes	Jan. 16
Broad-winged Hawk . . . . .	. . . . .	. . . . .	Weston	Apr. 28
American Rough-legged Hawk	Middlesex Fells	Nov. 26	. . . . .	. . . . .
Duck Hawk	Ipswich	Aug. 17	. . . . .	. . . . .
Pigeon Hawk . . . . .	. . . . .	. . . . .	Franklin Park	Oct. 14
American Sparrow Hawk	Medford	Feb. 23	Newton	Jan. 13
American Osprey	Medford	Apr. 28	West Tisbury	Aug. 30
Short-eared Owl	Ipswich	Oct. 30	. . . . .	. . . . .
Screech Owl	Medford	Aug. 4	Jamaica Plain	Aug. 5
Yellow-billed Cuckoo	Middlesex Fells	May 18	Franklin Park	May 16
Black-billed Cuckoo	Medford	May 13	Belmont	May 11
Belted Kingfisher	Medford	Apr. 19	Franklin Park	Apr. 17
Hairy Woodpecker	Middlesex Fells	Feb. 25	Arnold Arboretum	Dec. 30
Downy Woodpecker	Medford	Jan. 1	Franklin Park	Feb. 18
Yellow-bellied Sapsucker	Greylock	June 16	Belmont	Sept. 28
Northern Flicker	Medford	Jan. 4	Franklin Park	Jan. 7
Whip-poor-will . . . . .	. . . . .	. . . . .	West Tisbury	Aug. 15
Nighthawk	Medford	May 17	Boston	June 21
Chimney Swift	Medford	May 5	Franklin Park	May 4
Ruby-throated Hummingbird	Medford	June 3	Cambridge	Aug. 10
Kingbird	Medford	May 4	Dedham	May 5
Crested Flycatcher	Belmont	May 26	Belmont	May 11

Name of Species	List of Birds observed by Lidian E. Bridge, West Medford, Mass., from January 1, 1906, to Jan- uary 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Phoebe	Medford	May 2	Franklin Park	Apr. 9
Olive-sided Flycatcher	Greylock	June 16		
Wood Pewee	Medford	May 13	Holden	May 12
Alder Flycatcher	Middlesex Fells	May 27		
Least Flycatcher	Medford	May 2	Dedham	May 5
Horned Lark	Nahant	Feb. 22	Ipswich	Oct. 20
Prairie Horned Lark	Ipswich	Aug. 17		
Blue Jay	Medford	Jan. 1	Jamaica Plain	Jan. 2
American Crow	Medford	Jan. 1	Franklin Park	Jan. 2
Bobolink	Concord	May 2	Franklin Park	May 8
Cowbird	Medford	Apr. 16	Franklin Park	Apr. 5
Red-winged Blackbird	Medford	Apr. 7	Morton Marshes	Feb. 25
Meadowlark	Medford	Apr. 5	Morton Marshes	Feb. 25
Orchard Oriole	Ipswich	May 19	Ipswich	May 19
Baltimore Oriole	Medford	May 12	West Roxbury	May 5
Rusty Blackbird	Cambridge	Mar. 17		
Bronzed Grackle	Medford	Apr. 12	Franklin Park	Mar. 6
Canadian Pine Grosbeak	Medford	Nov. 18	Arnold Arboretum	Nov. 11
Purple Finch	Medford	Apr. 17	Franklin Park	Apr. 8
American Crossbill	Greylock	June 18	Arnold Arboretum	Nov. 25
White-winged Crossbill	Middlesex Fells	Nov. 3	Jamaica Plain	Nov. 3
Redpoll	Middlesex Fells	Nov. 24	Arnold Arboretum	Nov. 25
American Goldfinch	Medford	Mar. 11	Franklin Park	Jan. 13
Pine Siskin	Middlesex Fells	Nov. 26	Franklin Park	Nov. 4
Snowflake	Medford	Mar. 17	Squantum	Feb. 24
Lapland Longspur	Ipswich	Oct. 30	Ipswich	Nov. 17
Vesper Sparrow	Medford	Apr. 17	Franklin Park	Apr. 13
Ipswich Sparrow	Ipswich	Oct. 30	Ipswich	Oct. 20
Savanna Sparrow	Medford	Apr. 16	Squantum	Apr. 14
Grasshopper Sparrow	Concord	May 14	West Tisbury	Aug. 30
Henslow's Sparrow			Norwood	June 16
Sharp-tailed Sparrow	Ipswich	May 19	Ipswich	May 19
White-crowned Sparrow	Medford	May 15		
White-throated Sparrow	Medford	Apr. 5	Franklin Park	Apr. 28
Tree Sparrow	Medford	Feb. 24	Morton Marshes	Jan. 14
Chipping Sparrow	Medford	Apr. 11	Franklin Park	Apr. 15
Field Sparrow	Medford	Apr. 17	Franklin Park	Apr. 14
Slate-colored Junco	Medford	Apr. 1	Franklin Park	Jan. 10
Song Sparrow	Medford	Mar. 7	Morton Marshes	Jan. 16
Lincoln's Sparrow	Medford	May 15		
Swamp Sparrow	Cambridge	Apr. 28	Morton Marshes	Apr. 13
Fox Sparrow	Medford	Mar. 21	Franklin Park	Mar. 28
Towhee	Medford	May 4	Weston	Apr. 28
Rose-breasted Grosbeak	Middlesex Fells	May 5	Franklin Park	May 7
Indigo Bunting	Medford	May 13	Franklin Park	May 13
Scarlet Tanager	Medford	May 13	Franklin Park	May 15
Purple Martin	Concord	June 11	Wayland	June 2
Cliff Swallow	Ipswich	May 19	Ipswich	May 19
Barn Swallow	Medford	Apr. 28	Franklin Park	Apr. 28
Tree Swallow	Medford	Apr. 12	Natick	Apr. 7
Bank Swallow	Concord	May 14	Ipswich	May 19
Cedar Waxwing	Medford	Mar. 30	Franklin Park	Feb. 18
Northern Shrike	Medford	Jan. 6	Morton Marshes	Jan. 21
Red-eyed Vireo	Middlesex Fells	May 6	Franklin Park	May 11

Name of Species	List of Birds observed by Lydian E. Bridge, West Medford, Mass., from January 1, 1906, to Jan- uary 1, 1907.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1906, to January 1, 1907.	
	Locality	Date	Locality	Date
Warbling Vireo	Medford	May 10	Jamaica Plain	May 6
Yellow-throated Vireo	Medford	May 10	Franklin Park	May 6
Blue-headed Vireo	Concord	May 2	. . . . .	. . . . .
White-eyed Vireo	Cohasset	July 4	Braintree	May 30
Black and White Warbler	Middlesex Fells	May 4	Franklin Park	Apr. 28
Golden-winged Warbler	Middlesex Fells	May 6	Arnold Arboretum	May 6
Nashville Warbler	Middlesex Fells	May 6	Holden	May 12
Northern Parula Warbler	Middlesex Fells	May 6	Belmont	May 11
Yellow Warbler	Medford	May 4	Franklin Park	May 2
Black-throated Blue Warbler	Medford	May 13	Holden	May 12
Myrtle Warbler	Medford	Apr. 22	Franklin Park	Apr. 10
Magnolia Warbler	Medford	May 13	Franklin Park	May 13
Chestnut-sided Warbler	Middlesex Fells	May 6	Arnold Arboretum	May 6
Bay-breasted Warbler	Medford	May 20	. . . . .	. . . . .
Black-poll Warbler	Middlesex Fells	May 18	Franklin Park	May 15
Blackburnian Warbler	Middlesex Fells	May 18	Franklin Park	May 21
Black-throated Green Warbler	Middlesex Fells	May 6	Franklin Park	May 2
Pine Warbler	Medford	Apr. 15	Franklin Park	Apr. 15
Yellow Palm Warbler	Medford	Apr. 16	Franklin Park	Apr. 14
Prairie Warbler	Arlington	May 26	Hyde Park	May 26
Ovenbird	Middlesex Fells	May 8	Franklin Park	May 5
Water-Thrush	Middlesex Fells	May 13	. . . . .	. . . . .
Mourning Warbler	Greylock	June 18	. . . . .	. . . . .
Northern Yellow-throat	Middlesex Fells	May 11	Dedham	May 5
Yellow-breasted Chat	Cohasset	May 30	Braintree	May 30
Wilson's Warbler	Middlesex Fells	May 20	Franklin Park	May 15
Canadian Warbler	Middlesex Fells	May 20	Franklin Park	May 19
American Redstart	Medford	May 6	Belmont	May 11
American Pipit	Ipswich	Aug. 30	Nahant	Oct. 6
Catbird	Medford	May 5	Franklin Park	May 2
Brown Thrasher	Middlesex Fells	May 4	Morton Marshes	Apr. 22
House Wren	Medford	May 14	Belmont	May 11
Winter Wren	Greylock	June 18	. . . . .	. . . . .
Short-billed Marsh Wren	Norwood	July 14	South Sudbury	May 26
Long-billed Marsh Wren	Cambridge	June 5	Cambridge	May 25
Brown Creeper	Middlesex Fells	Feb. 25	Franklin Park	Jan. 16
White-breasted Nuthatch	Middlesex Fells	Feb. 25	Jamaica Plain	Jan. 11
Red-breasted Nuthatch	Medford	Sept. 24	Franklin Park	Sept. 29
Chickadee	Medford	Jan. 7	Franklin Park	Jan. 2
Golden-crowned Kinglet	Medford	Jan. 7	Franklin Park	Jan. 2
Ruby-crowned Kinglet	Arlington	Apr. 21	Jamaica Plain	Apr. 17
Wood Thrush	Medford	May 11	Arnold Arboretum	May 6
Wilson's Thrush	Middlesex Fells	May 7	Franklin Park	May 23
Gray-cheeked Thrush	Medford	Sept. 25	. . . . .	. . . . .
Olive-backed Thrush	Concord	May 14	Franklin Park	May 24
Hermit Thrush	Middlesex Fells	May 15	Squantum	Apr. 14
American Robin	Medford	Mar. 4	Arnold Arboretum	Feb. 4
Bluebird	Medford	Mar. 4	Milton	Mar. 11
Ring-necked Pheasant . . . . .	. . . . .	. . . . .	Franklin Park	Jan. 2
Kumlein's Gull . . . . .	. . . . .	. . . . .	Boston	Feb. 3
Black Tern	Ipswich	Aug. 30	West Tisbury	Aug. 29
Purple Grackle . . . . .	. . . . .	. . . . .	West Tisbury	Aug. 15
Baird's Sandpiper	Ipswich	Sept. 28	. . . . .	. . . . .
Acadian Sharp-tailed Sparrow	Cohasset	May 30	. . . . .	. . . . .
Orange-crowned Warbler	Middlesex Fells	Nov. 26	. . . . .	. . . . .

The Migration of Thrushes

FOURTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

VARIED THRUSH

THE Varied Thrush, under which name both forms of this species are included, breeds from northwestern California, northern Idaho and northwestern Montana, north to Fort Franklin, Mackenzie, Fort Yukon, and the Kowak river, Alaska; winters from central Washington to southern California. Accidental in New Jersey, Long Island, Massachusetts, Kansas and Guadalupe Island, Lower California.

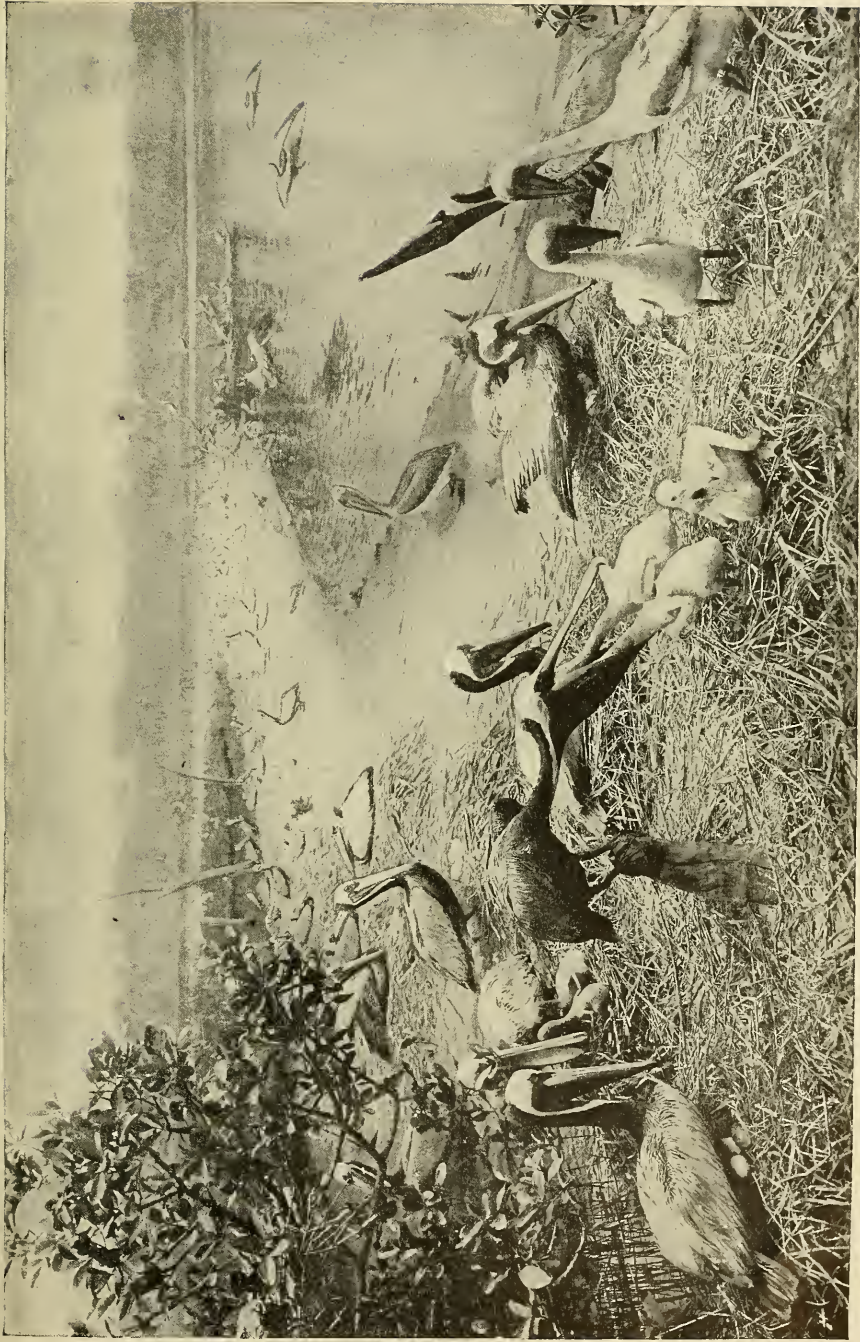
The spring migration begins so early that, on the average, migrants arrive in central Washington March 6 and southern British Columbia March 10. The valley of the Kowak river, Alaska, was reached May 21, 1899. The average date of arrival at Columbia Falls, Mont., is April 1, and the earliest date is, March 2, 1895. Central California is deserted, on the average, April 2, and the latest date in southern California is April 12, 1899.

The species leaves its breeding grounds in northern Alaska about the first of September and usually arrives in central California, along the coast, November 7, the earliest date being September 27, 1898. It appears on the higher mountains of northern California about the first week in October.

SAINT LUCAS ROBIN

The Saint Lucas Robin is a resident species in the southern portion of Lower California. The only record for the United States is that of a specimen taken January 2, 1880, at Haywards, California.





THE BROWN PELICAN GROUP. ILLUSTRATING THE NESTING HABITS OF THIS SPECIES ON PELICAN ISLAND, FLORIDA

The New Bird Groups in the American Museum of Natural History

By FRANK M. CHAPMAN

FROM time to time during the past four years photographs of certain bird groups in the American Museum of Natural History have appeared in *BIRD-LORE*, but, beyond the caption with each cut, nothing has been said of the groups themselves or of the object of the series of which they form a part. This series will be known as 'The Habitat Groups of North American Birds.'

The novel features of these groups consist mainly in their painted backgrounds and in their method of installation, particularly with respect to lighting.

Briefly, it may be said that these groups are lighted from above by reflected natural, and, when necessary, artificial light. The source of light, therefore, whether by day or night, is always the same, and, in consequence, there is but one set of shadows, a matter of the first importance where an attempt is made to connect the actual foreground with the painted background.

In ground plan the groups are curved at the back and straight in front, from which point alone they can be seen. Only a part of the front is occupied by the glass through which the group is viewed, both the ends and the top of the group being beyond the range of vision from the normal viewpoint. This increases the panoramic illusion and adds greatly to the artistic effectiveness of the whole.

It is, however, not my object to speak of the method of construction of these groups, but rather of the idea which they are designed to embody. The more novel feature of this idea is to be found in the painted backgrounds which form a part of each group. Painted backgrounds for small groups or panels of mounted birds have long been employed by the taxidermist; but this, it is believed, is the first attempt to introduce backgrounds painted from nature and intended to reproduce a given scene as accurately as the groups they supplement do a limited portion of it. Such backgrounds have, therefore, not only a biologic or ecologic value, as they portray the nesting habitat of a species or illustrate colonial nesting habits on a scale which mere taxidermy alone would prohibit, but they have also a botanic, geographic and physiographic value. It is believed, therefore, that when the thirty-odd groups which have been planned for this series are completed, the Museum will have not alone adequate reproductions of the nesting habits and haunts of many American birds, but will have also a series of paintings representing, in a novel and attractive manner, characteristic American scenery. The series might indeed be called *America and its Bird-Life*.



CACTUS-DESERT BIRD-LIFE OF ARIZONA. BASED ON STUDIES MADE AT TUCSON, ARIZONA, IN MAY, 1906

The following groups have been completed: (1) Summer Bird-Life of Cobb's Island, Virginia*; (2) A Flamingo Colony in the Bahamas†; (3) Summer Bird-life of an Irrigated Section in the San Joaquin Valley at Los Baños, California‡; (4) Brandt's Cormorant, Monterey, California§; (5) Sandhill Crane, Kissimmee Prairies, Florida; (6) Anhinga, in a 'bonnet' (*Nuphar*) swamp, Brevard County, Florida; (7) Ward's Heron, Brevard County, Florida; (8) Brown Pelican and Pelican Island, Indian River, Florida; (9) Wild Turkey, Mountains of West Virginia; (10) Prairie Hen, Sandhills of Nebraska; (11) Golden Eagle, Bates' Hole, Wyoming; (12) Cactus Desert Bird-life, Tucson, Arizona. Others are approaching completion, and it is hoped to finish the series in 1908.

It should be added that the photographic reproductions here shown are so far from doing justice to the originals that they serve only to suggest the method of treatment, without conveying an idea of the remarkably successful manner in which artist and preparateur have overcome the technical difficulties encountered.

*Figured in BIRD-LORE, V, 1903, p. 108.

†Figured in BIRD-LORE, VII, 1905, p. 201.

‡Figured in BIRD-LORE, VII, 1905, p. 202.

§Figured in BIRD-LORE, VIII, 1906, p. 202.



SLATE-COLORED JUNCO AND YOUNG

Photographed by Thomas S. Roberts

Notes from Field and Study

Notes on the Starling

Unless the ornithologists are satisfied that Starlings are enormously valuable to the country economically, I predict that we are going to deplore the importation of these



STARLING, WINTER PLUMAGE
Drawn by Bruce Horsfall

birds quite as much as we do that of the English Sparrow. I do not know that they raise more than one brood each year, but from their increase in numbers, they evidently have large families, and I am led to believe that they have singularly bad dispositions.

They have appropriated not only all the holes in the old apple trees, including those stolen from the Bluebirds by the English Sparrows, but also the holes in all the big lawn trees, hitherto occupied by Flickers, etc.

For three consecutive summers a pair of these latter birds nested in a hole in an elm tree, on a level with, and not more than ten feet from my bedroom window. Very early last year a pair of English Sparrows tried to build there, but I promptly ousted

them. They started in a second time, but Starlings had discovered the snug place and wanted it for themselves, so they were my allies until I had to watch out that both interlopers were forced to go elsewhere. In spite of this, and in spite of the fact that the Starlings had a hole of their own and had occupied it for some time, they harassed my poor Flickers into seeking a nest elsewhere. It certainly looked like mere wanton cruelty, for having gained their point, the Starlings took no more interest in that hole.

It is strange that these birds, so much in evidence throughout the rest of the year, become, when the trees are in leaf, so secretive that they are rarely seen. Occasionally, late in the summer, small flocks join the Red-winged Blackbirds feeding in the salt marshes; but, excepting between dawn and sunrise, one looks in the trees for them in vain. At this early hour they are invariably to be seen within a few yards of their nest, apparently having a good game of "hide-and-seek," and keeping up an incessant chatter. The trees are old and have many holes, and five or six Starlings play until a few minutes after sunrise, then disappear as if from the face of the earth. That the same thing goes on every morning in the vicinity of other Starlings' nests, and that their first



STARLING, SUMMER PLUMAGE. Drawn by Bruce Horsfall

appearance mornings seems to be as they emerge from a hole, causes me to believe that the young, as well as the old, sleep in holes. I think, but cannot say with certainty, that the young, until each takes a mate, sleep in the hole in which they were hatched; for those that I watched played every morning about their birthplace long after they were fully grown. Possibly about the time of the fall migration they seek new quarters for themselves; but so secretive are they that it is almost impossible to study their habits through the summer months. Even before the young can fly, the parents are seen no more on the lawns with Robins and Grackles, but hunt for food where they cannot be seen.

In the fall, when not a leaf remains on the trees, Starlings are seen in their tops in small flocks of from three to eight or ten. It is at this time that one hears their loud, clear whistle of two notes,—a high one followed by one a trifle lower, the two somewhat slurred together. It is rather sweet and very easy to imitate; in fact, one can call them. This whistle and the result produced by the ludicrous straining at a song, and which is only a wheezy creaking heard all through the spring, constitute the Starling's own singing; but, "to give the devil his due," he is an excellent mimic; he can copy many notes of the Catbird; he gives the Wood Pewee's call so perfectly that the season is the Pewee's only alibi. One day I was so sure that I heard a Downy Woodpecker hammering over my head that I strained my neck searching for him; then, to my astonishment, discovered a Starling producing this noise from his throat.

In proof of my statement that these birds have bad dispositions, I may say that I have seen them annoy many different kinds of birds, and I must tell of one incident that occurred very early one morning only last week. A Flicker was calling so loudly and persistently that I was awakened. Thinking it must be close at hand, I went to the window and saw a male bird in the old hole in the elm I have already spoken of. The female, although quite near, was too timid to join him, evidently because of a pair of restless Star-

lings just overhead. I was too sleepy to watch any longer, so settled myself for another nap, and, almost at the same moment, heard both Flickers "talking" softly together at the hole. It could not have been more than five or ten minutes later when I heard a bird cry very much like the quavering cry of the Screech Owl, only softer. I jumped to the window and saw the body of a Flicker half-way out of the hole, its head twisted so far back and downward as to be invisible. The contortions it made struggling to get away were pitiful, and this pathetic cry wrung my heart, but it got away, and almost at once was followed by a Starling, who gave a satisfied grunt as he came to the edge of the hole, then flew to a branch above, where he began his torturing efforts at singing.—MRS. PAUL R. BONNER, *Stamford, Conn.*

A Call for Notes on the Starling

Seventeen years have passed since the Starling was first successfully introduced into this country, and Mrs. Bonner's estimate of the bird suggests calling for information in regard to the distribution of this recent addition to our avifauna, as well as for an expression of opinion in regard to its desirability. Introduced into Central Park, New York City, in March, 1890, the Starling has now spread eastward nearly if not quite to New London, Conn., northward to Newburgh and Poughkeepsie, and southward at least to Princeton, N. J. As a contribution to the history of this bird in America, it will be well to place on record now replies to the questions which appear below:

1. When did the Starling first appear in your vicinity?
2. What is its status now?
3. Do you consider it a desirable addition to our avifauna?
4. If undesirable, give reasons why.
5. Do you know of any Starlings, other than those released in Central Park, which have been introduced into this country?
6. Was the introduction successful?

The Editor will welcome replies to one

or all of these questions. They may be sent to him at the American Museum of Natural History, New York City, not later than September 1, for insertion in the next issue of BIRD-LORE.—FRANK M. CHAPMAN.

A Winter Flight of Vesper Sparrows

The following account, relating to a mid-winter flight of Vesper Sparrows in the vicinity of New York City, appears to constitute an unprecedented record. The presence of this species here first came to my notice on February 12, 1907. During the forenoon of that day I observed many individuals of the species in the grassy fields and stubble growth north of Merrick, Long Island; and from this locality southward to the salt meadows and westward along the Merrick Road, I found Vesper Sparrows in comparative abundance. The birds were sometimes seen singly or in groups of two or three, but were more commonly found associating with Juncos and Tree Sparrows. All three species were industriously feeding among the roadside weeds, in a temperature which stood near the zero point.

Within the limits of Freeport, L. I., just north of the center of the village, many Vesper Sparrows were seen feeding between the rails of the electric-car tracks from which the snow had been entirely cleared, and, as I followed the tracks toward Hempstead and Garden City, one bird after another flew up from before me, only to alight again some distance ahead. After being repeatedly flushed, the birds would fly into a near-by bush or tree, and allow me to pass before resuming their quest for food. They were, without exception, exceedingly tame, and usually permitted a close approach before flying and expanding their white-edged tails. North of Freeport, one of the birds was secured for the Museum, thus making identification positive.

On February 17, a careful search in the vicinity of Jamaica, Long Island, failed to disclose a single Vesper Sparrow, and none was seen by members of the Museum staff, who spent several days on the south shore of Long Island during the latter part of February and the first week in March.

Several hunts made since that time have yielded no better results; the conclusion, therefore, is that the flight must have been either very local or of short duration, probably the latter.

Although Giraud, in his 'Birds of Long Island,' says of the Vesper Sparrows, "A few remain with us throughout the year," recent records for dates later than the middle of November are not common, and, moreover, the above statement would hardly account for such numbers of the birds as were seen by the writer. With the exception of Giraud's account, the northernmost recorded winter range of the species is in southern Pennsylvania, where, according to Warren, the birds are frequently seen in winter. In Rhoad's and Penneck's list of the 'Birds of Delaware,' the Vesper Sparrow is given only as a summer resident.

The fact that the Vesper Sparrows were with us during the coldest period of the winter would appear to preclude the supposition that they were early migrants from the South, and yet no other theory seems probable. Field notes from all sections of the country around New York City might aid greatly in determining the direction of the flight, so it is to be hoped that other observers will be heard from.—ROBERT C. MURPHY, *American Museum of Natural History, New York City.*

An Owl Tragedy

Early in April, 1906, I made my first trip of the season to the home of a pair of Barred Owls which I had been in the habit of visiting each spring for several years. The Owls nested in the hollow top of a dead pin-oak stub about thirty feet from the ground. The hole was open and unsheltered at the top, and its floor was about two feet below the entrance.

Upon reaching the familiar tree, I rapped upon the trunk, expecting to see the big Owl fly out as usual. Nothing happened, however, so I climbed to the nest. As I neared it the clicking of an Owl's bill reached my ear. Upon looking into the hole, I was taken aback to see it closed by a heavy cake of ice a few inches below the top, and it did

not take long to guess what had happened. Two or three days before there had been a snow-storm, and the old Owl, keeping her eggs warm, had been covered by the falling snow. The sleet and subsequent cold had converted this into ice, which had frozen so closely around several projections on the walls of the hole as to resist all the Owl's attempt to break through.

In the center of the ice-cake was an opening little more than an inch square, and through this hole I could see the Owl. Her head was pressed against the center of the disk of ice, and this had resulted in melting the hole through the thinnest part. It took but a few minutes to break and remove the ice, but it is no wonder that the Owl had been unable to do so, as it was from three to four inches thick around the edge.

The poor bird presented a most pitiable appearance, her bedraggled feathers hanging in wet, stringy masses, with lumps of ice adhering to parts of the plumage. I pulled her from the hole, for she was so stiff and weak as to be unable to fly. I succeeded in greatly improving at least her appearance by drying and smoothing her plumage, and left her sitting in an apparently dazed condition in a cedar tree not far from the nest.

Before I left, her mate was observed flying about among the large oaks near by, but he did not go to the nest. Whether the Owl recovered or not I do not know, but this year (1907) the old hole was found to be unoccupied when I paid it my annual visit.

It may be well to add that in her struggles to escape the imprisoned Owl had broken her eggs into small fragments. Also that a feather on the ice-cake showed that her mate had visited the nest while she was entombed within. — W. DEW. MILLER, *Plainfield, N. J.*

Prairie Horned Larks in Connecticut

Prairie Horned Larks breed in Berkshire County, Mass., and in the northern New England states, but I can find no record of their occurrence in Connecticut, except during migrations.

While spending my vacation at Washington, Conn., in the summer of 1906, from

the middle of July to the end of August, I saw almost daily a flock of between twenty and twenty-five of these birds on a side-hill pasture lot not far from the house.

They fed on the ground, and, when startled, flew to the top of a stone wall or into a tree; unless further disturbed, they immediately returned to the ground to continue feeding. If suddenly startled, the flock would rise and fly to a distant part of the field, uttering on the wing a note that sounded like *tzee-a-wee, tzee-a-wee*.

I believe that the Larks nested here this year (1906). Only four or five were in adult plumage, the rest having the plumage of the immature bird. As some were here all summer, there can be no chance that they bred elsewhere and then wandered here. Likewise I was told of a nest that had been found, which corresponded with a description of the Lark's nest and eggs, although the person at the time did not know what the birds were.—[Will the writer of this note kindly send his or her name for publication?—ED.]

Red-breasted Nuthatches and Pine-Finches on Staten Island, N. Y.

IN BIRD-LORE for December, 1906, Mr. Dutcher described a remarkable migration of Red-breasted Nuthatches over Fire Island Beach, N. Y. While no such flight was noticed on Staten Island, still these birds were unusually abundant throughout the fall of 1906, the first being seen about September 1, and the last remaining till late in the autumn.

Pine-Finches, too, were present in for large numbers during the winter of 1906-7 than in the two preceding. They were most numerous on the beach on the south side of the island, where they fed on the ground and in the goldenrods.

Singularly enough, both birds were also common on Staten Island during the season of 1903-4, when the Nuthatches were observed from September till November, and a few the following spring, and the Pine-Finches were even more numerous in the central part of the island than during the past winter.—JAMES CHAPIN, *New Brighton, Staten Island, N. Y.*

Book News and Reviews

PROCEEDINGS OF THE FOURTH INTERNATIONAL ORNITHOLOGICAL CONGRESS London, June 1, 1905. Edited under the direction of the president, R. Bowdler Sharpe, LL.D., by the secretaries: Ernst J. O. Hartert, Ph.D., and J. Lewis Bonhote, M.A. London; Dulau & Co., 37 Soho Square, W. February, 1907. 8 vo. 696 pages, 18 plates.

This well-edited volume contains not alone the papers presented before the Fourth International Ornithological Congress, but also an excellent history of the Congress itself, with lists of officers, committees and members, and detailed reports of the proceedings of the various sections into which the Congress was divided. It is manifestly impossible to review here in detail the contents of the nearly seven hundred pages forming this volume, and, merely as a matter of information, we give the titles of those papers of interest to BIRD-LORE'S readers. (2) 'President's Address' (A History of the British Museum's collection of Birds), Bowdler Sharpe; (3) 'What Constitutes a Museum Collection of Birds?' 6 plates, Frank M. Chapman; (5) 'On the Migration of Birds,' Otto Herman; (9) 'On Extinct and Vanishing Birds,' 2 plates, Walter Rothschild; (11) 'On Some Antarctic Birds,' Edw. A. Wilson; (12) 'Some Notes on the Hybridizing of Ducks,' 4 plates, J. Lewis Bonhote; (13) 'The Principal Aims of Modern Ornithology,' Ernst Hartert; (14) 'Some Ornithological Results of the Scottish National Antarctic Expedition,' W. S. Bruce; (16) 'Monographie de la Sterne de Dougall,' 1 plate, Louis Bureau; (20) 'On the Origin of the Differences Between Nestling Birds,' W. P. Pycraft; (24) 'Sequence in Moults and Plumages,' Jonathan Dwight, Jr.; (27) 'The Unusual Migration of Brännich's in Eastern North America,' 1 plate, J. H. Fleming; (30) 'On Colour Variation in the Eggs of Palearctic Birds,' F. C. R. Jourdain; (31) 'The Wild Birds Protection Act,' Sir Digby Pigott; (32) 'Bird Legislation in Australia,' Sir John Cockburn; (33) 'The Rationale of Bird Protec-

tion,' Frank E. Lemon; (34) 'The Food of Birds,' Otto Herman; (35) 'Ornithologie Economique,' A Quinet; (37) 'The Sparrow: Is it Useful or Harmful to Agriculture?' Igalí Svetozár; (40) 'The Importance of Aviculture as an Aid in the Study of Ornithology,' D. Seth-Smith. — F. M. C.

THE PASSENGER PIGEON. By W. B. MERSHON. New York: The Outing Publishing Company, 1907. 8vo. xii + 225 pages. 9 plates, 2 in color.

Mr. Mershon is to be thanked for bringing between two covers the more important literature relating to the Passenger Pigeon, and adding thereto his own recollections of this lost species, together with much interesting data from various sources. Thus we have the biographies written by Wilson, Audubon and Bendire; Fennimore Cooper's graphic description of a Pigeon flight from 'The Pioneers,' with more or less extended quotations from later writers.

No part of the original contributed matter appears to be of greater value than that furnished by Mr. Henry T. Phillips, of Detroit, who from 1864 to 1878 marketed Passenger Pigeons either dead or alive. From a single nesting in Oceana county, Michigan, in 1874, Mr. Phillips states 100 barrels of dead birds were sold daily for thirty days and, in addition, 175,000 live birds were shipped. He writes that in this same year there were over 600 professional netters, we assume in Michigan, and adds that "when the Pigeons nested north every man and woman was either a catcher or picker." And still people marvel at the Pigeon's extinction, and seek to account for its disappearance through the action of some catastrophe which destroyed nearly all the existing birds. Need we look for a greater catastrophe than that supplied by man himself? We are glad to observe that Mr. Mershon places no belief in this alleged cause of the Pigeon's disappearance, but finds in their persecution by man a sufficient explanation of their decrease. A colored plate of the Passenger Pigeon by Fuertes

and one of the Band-tailed Pigeon by Allan Brooks add to the attractiveness and value of this volume.—F. M. C.

THE PROTECTION OF OUR NATIVE BIRDS.

By THOS. H. MONTGOMERY, JR., Professor of Zoölogy, University of Texas. Bulletin, University of Texas, No. 79, 1906. 8vo. 30 pages.

Professor Montgomery discusses the subject of bird protection under three heads: (a) "Reasons for Protection," (b) "Data on the Destruction of Birds," and (c) "Means of Protection of Birds."

He has long been interested in a study of the food of birds, and the information acquired by personal investigation, as well as that obtained from the published works of others, has convinced him of the value of birds to our agricultural interests.

The question is handled in a scientific, logical manner, which increases the force of the arguments employed, and we trust that the publication of this paper in a state particularly in need of the services of insect-destroyers will help to bring its inhabitants to a realization of their indebtedness to birds.—F. M. C.

THE BIRDS OF THE CHICAGO AREA. By FRANK MORLEY WOODRUFF. Bulletin VI of the Natural History Survey, Chicago Academy of Sciences, April 15, 1907. 221 pages, 12 full-page half-tones.

In an introduction of twenty-four pages, Mr. Woodruff states the sources of information on which this list is based, outlines the territory embraced with its more significant climatic conditions, calls attention to localities of special interest, describes conditions unfavorable to birds, speaks of those extra-limited species which have occurred and those which may be expected to occur, and has a word to say about migration from a local standpoint.

For the excellent reason that a local list is not the place in which to exploit the latest scheme in classification, the A. O. U. check-list is followed.

Pages 25 to 195 are devoted to the treatment of the birds which have been reported from the area covered. This is stated to include Cook and Du Page counties,

the nine north townships of Will county and the northern portion of Lake county, Indiana." The species are not numbered, nor does there appear to be a synoptic table of their manner of occurrence from which we could readily obtain an impression of the character of the ornithology of the area under consideration.

The annotations include a statement of the local status and general distribution of each species, the less common species being treated with a detail which should make this paper of great value to local students. An extended bibliography should help to rescue from oblivion much matter in regard to Chicago birds which has been published in the daily press. It is interesting to observe that, although E. W. Nelson appears here as the author of only two papers relating to the birds of the Chicago area, he is more frequently quoted than any other author.—F. M. C.

JOURNAL MAINE ORNITHOLOGICAL SOCIETY.

—The leading article in the December, 1906, number is on 'Bicknell's Thrush on Mt. Abraham,' by D. W. Sweet, describing the occurrence of the species in Maine during the breeding season. W. H. Brownson contributes some notes on 'Portland Birds' observed in 1906 and J. M. Swain furnishes 'Contributions to the Life History of the Pine Warbler.' Migration tables and numerous local notes make up the number.

In the March, 1907, number, O. W. Knight contributes to the Life History of the Yellow Warbler and A. H. Norton discusses the occurrence of the Jerfalcons, Lapland Longspur, Sharp-shinned and Pigeon Hawk in Maine in winter. There is also the report of the Eleventh Annual Meeting and numerous Christmas Bird Censuses and Local Notes.—W. S.

THE publication of the first number of 'British Birds,' an illustrated monthly magazine devoted to the birds on the British list, is announced for June 1. The editor will be Mr. H. F. Witherby, assisted by W. P. Pycraft. The annual subscription of 10 s. 6d. may be sent to Witherby & Co., 326 High Holborn, London.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

AUGUST AND THE FLOCKING TIME

The nesting season is practically over at middle July, and dingy, faded feathers are everywhere seen as the forerunners of the August time of silence and withdrawal to seclusion for the summer molting. There are but three birds that can be counted on for August music—the Red-eyed Vireo, the Song-sparrow and the Indigo Bunting.

The novice cannot hope to identify new birds at this time of changing and mixed plumage, and it is no easy task to follow some of the most familiar species through the change and still be able to name them. The clearly marked black, white and buff male Bobolink of June meadows, now wears the brown stripes of his mate. After molting, the Scarlet Tanager is feathered in olive-green, his wings and tail remaining black; the autumn Goldfinch changes his bright gamboge coat for olive-gray, though his wings are as in summer.

The birds of more sober plumage remain much the same, though the markings seem less distinct. The brick-red spring breast of the male Robin has faded to a yellowish hue, while the immature plumage of the young birds of the season make the work of naming very difficult for the amateur. In May and June, identification, learning the various call-notes and songs, and watching the various processes of rearing the young, fill the hours to overflowing, so that one day lapses to another, and midsummer comes all too soon. The nesting season shows the personal and individual side of bird-life, while, with late summer and early autumn, the impersonal or gregarious phase begins. This gathering of the clans, as it might be called, under the autumn spell, or flocking impulse, is very interesting to watch, and is in itself a study.

The smaller birds travel in more or less mixed companions, and as early as the first week in August, flocks of various Warblers arrive from the North and remain for a month or more, according to the season, feeding in the tree-tops. The first of our own summer residents to leave are the Orchard and Baltimore Orioles, the Purple Martin, Yellow Warbler and the Yellow-breasted Chat; and, though they do not finally disappear before the middle of September, their migratory activity begins the last of August, as soon as the molt is over and they have gained fresh strength of wing with the new pinions.

There are two classes of birds whose flocking is of special moment, and, when we see them assemble, we know that summer is over, no matter how green the trees or fresh the herbage,—these are the Blackbirds, including Grackles, Redwings and Cowbirds, and the Swallows.

The Purple Grackle makes himself ludicrous in April and May by taking a conspicuous position in a tree-top, and standing on tip-toe, with extended wings, going through a series of ludicrous contortions and gasps and squeaks that he evidently considers highly dramatic love-making. But, when they have at last settled down to domestic life, they become almost as furtive as the Crows in their comings and goings, and we forget them.

Comes a day in late August and there is a noise in the open between garden and orchard like the rustling of fallen leaves under the tread of many feet, mingled with strange creakings as if the doors of autumn were turning on rusty hinges, and there far and wide, walking through the stubbly grass or cloaking the bushes and trees upon which they perch in sable, are the Grackles.

At a signal from the leader, they will rise and drift away like a storm-cloud; but tomorrow they will return, and the next day, and the next, staying with us until Thanksgiving, and many injurious insects will they glean from the land plowed for fall sowing. The Grackle flocks haunt stubble-fields and wood edges, while the Cowbird flocks keep to the open pasture, and the Redwings claim the marsh-lands.

The flocking manœuvres of Barn and Bank Swallows are interesting in the extreme, and worthy of patient observation, for there are many things not yet understood. It seems to me that they engage in flying drills, with distinct right- and left-wheels, and various other tactics.

Whether this practice is merely for the pleasure of motion, or whether it is to accustom the young of the year to the fatigue of travel, who can say? But one thing is a fact, that while both Bank and Barn Swallows flock in the middle or late August, they keep up this flying practice for a full month, during which period they may be seen in vast numbers resting on the telegraph wires by the wayside, or on the fence-rails of wide-open commons along the shore.

One day we think that they have swept off for good, but the next sees them back at their posts, and a Barn Swallow flock has often remained in this latitude until the first week of October. Then, when other flocks fail, except in the absolute breeding season, we have the Crow always with us; and mendicant, thief, or whatever else we choose to call him, the watching of a flock of Crows, from August, when the corn is in the milk, until the next mating season is a sufficiently interesting proposition for any bird student.—M. O. W.



INDIGO BUNTING.

(UPPER FIGURE, MALE; LOWER FIGURE, FEMALE.)

Order—PASSERES.
Genus—PASSERINA.

Family—FRINGILLIDÆ.
Species—CYANEA.

THE INDIGO BUNTING

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 27

Rich color is the chief attribute that sets the Indigo Bunting apart from its kin of the tribe of Sparrows and Finches.

Blue that is decided in tone, and not a bluish gray, is one of the rarest hues among the birds of temperate zones; for one may count the really blue birds of the eastern United States upon the fingers of one hand.

This Bunting belongs to the tree-loving and tree-nesting **His Family** part of his tribe, in company with the Grosbeaks and the brilliant yellow American Goldfinch, whose black cap, wings and tail feathers only enhance his beauty. The Sparrows, of sober stripes, nest on or near the ground, and their plumage blends with brown grass, twigs, and the general earth coloring, illustrating very directly the theory of color-protection, while the birds of brilliant plumage invariably keep more closely to the trees.

In size, the Indigo Bunting ranks with the small Sparrows, coming in grade between the Field- and Song-Sparrows, and being only slightly larger than the Chippie. The female wears a modification of the Sparrow garb, the upper parts being ashy brown without stripes, the under parts grayish white washed and very faintly streaked with dull brown, the wings and tail feathers having some darker edges and markings.

When it comes to painting the plumage of the male in words, the task becomes difficult; for to use simply the term indigo-blue is as inadequate as to say that a bit of water that looks blue while in shadow is of the same color when it ripples out into full sunlight, and catches a dozen reflections from foliage and sky. A merely technical description would read: Front of head and chin rich indigo-blue, growing lighter and greener on back and underparts; wings dusky brown, with blue edges to coverts; tail feathers also blue-edged; bill and feet dark; general shape rounded and canary-like, resembling the Goldfinch.

The last of May, one of these Buntings came to a low bush, outside my window, and, after resting awhile, for the night before had been stormy, dropped to the closely cut turf to feed upon the crumbs left where the hounds had been munching their biscuits. I have never seen a more beautiful specimen, and the contrast with the vivid green grass seemed to develop the color of malachite that ran along one edge of the feathers, shifting as the bird moved like the sheen of changeable silk.

In vain did I search among contemporary writers for a description of this phenomenon, which appears only in the plumage of the fully developed male of two or more years of age. Finally, I chanced, in searching Alexander Wilson's American Ornithology for a different matter, to find the only adequate pen-picture of this bird that I know. Of its plumage he says: "There is one singularity, viz., that in some lights, his plumage appears of a rich sky-blue, and in others of a vivid verdigris green; so that the same bird, in passing from one place to another before your eyes, seems to undergo a total change of color. When the angle of incidence of the rays of light reflected from his plumage is acute, the color is green; when obtuse, blue. Such, I think, I have observed to be uniformly the case, without being optician enough to explain why it is so. From this, however, must be excepted the color of the head, which is not affected by the change of position."

The nest, in no wise typical, is a loose and rather careless structure of grass, twigs, horse-hairs, roots or bits of bark placed in a low, scrubby tree or bush at no great distance from the ground, and the eggs are a very pale blue or bluish white, and only three or four in number.

Being a seed-eater, it is undoubtedly this Bunting's love of warmth that gives him so short a season with us: for he does not come to the New England states until the first week in May, and, after the August molt, when he dons the sober clothing of his mate, he begins to work southward by middle of September,—those from the most northerly portions of the breeding range, which extends northward to Minnesota and Nova Scotia, having passed by the tenth of October. It winters in Central America and southward.

Although of the insect-eating fraternity of the conical beak, the Indigo Bunting consumes many noxious insects in the nesting season, when the rapid growth of the young demands animal food, no matter to what race they belong. Being an inhabitant of the overgrown edges of old pastures, or the brushy fences of clearings and pent-roads, he is in a position where he can do a great deal of good. Mr. Forbush, in his valuable book on Useful Birds and Their Protection, credits the Indigo Bunting with being a consumer of the larvæ of the mischievous brown-tail moth; but, whatever service it may do as an insect destroyer, its service the year through as a consumer of weed seeds, in common with the rest of its tribe, is beyond dispute.

The voice of the Indigo Bunting is pretty rather than impressive, and varies much in individuals. It consists of a series of hurried canary-like notes repeated constantly and rising in key, but, to my mind, never reaching the dignity of being called an impressive song. Yet on this point opinions differ, and Wilson calls it "a vigorous and pretty good songster. It mounts to the highest top of a tree,

and chants for half an hour at a time. Its song is not one continuous strain, but a repetition of short notes, commencing loud and rapid and falling by almost imperceptible gradations, for six or eight seconds, until they seem hardly articulate, as if the little minstrel were quite exhausted; and, after a pause of half a minute or less, commences as before." Then, too, the Indigo bird sings with as much animation in the month of July as in the month of May, and not infrequently continues his song until the last of August."

Nuttall writes that though usually shy the Indigo bird during the nesting season is more frequently seen near habitations than in remote thickets: "Their favorite resort is the garden, where, from the topmost branch of some tall tree that commands the whole wide landscape, the male regularly pours out his lively chant, and continues it for a considerable length of time. Nor is this song confined to the cool and animating dawn of morning, but it is renewed and still more vigorous during the noon-day heat of summer. This lively strain is composed of a repetition of short notes, which, commencing loud and rapid, and then slowly falling, descend almost to a whisper, succeeded by a silence of almost half a minute, when the song is again continued as before.

"In the village of Cambridge (Mass.), I have seen one of these azure, almost celestial musicians, regularly chant to the inmates of a tall dwelling-house from the summit of the chimney or the tall fork of the lightning-rod. I have also heard a Canary, within hearing, repeat and imitate the low lisping trill of the Indigo bird, whose warble indeed often resembles that of this species."

This combination of musical ability, lovely plumage and its seed-eating qualities long since has made the Indigo Bunting in danger of extermination, through the fact of its being universally, throughout the South, captured and sold as a cage-bird, both for home use and for export. In that section the bird is called "blue pop," a corruption of "bleu pape," or "pope," of the French. Thomas Nuttall and Alexander Wilson, both writing in the early years of 1800, speak of the Indigo Bunting as one of the most familiar of cage birds. Not only has this traffic existed since the days of Wilson, but, until a very few years ago, when the Audubon movement began to be a power, this Bunting, together with its cousin, the beautiful Painted Bunting, or Nonpareil, the Cardinal Grosbeak and the Mocking-bird were listed and sold, as a matter of course, by every bird-dealer in the country.

Oh, the untold misery and waste of this caging and selling of free-born birds! It is only one grade less direct a slaughter than killing them to trim a bonnet. While the sufferings of the bonnet-bird have ended, with it life those of the caged bird have only begun as the door closes behind him.

A few exceptional cases, where birds in the care of those who are both able and willing to make their surroundings endurable, count as nothing against the general condemnation of the practice of caging birds born wild.

Those of us who have known, by experience in caring for wounded or sick birds, exactly what incessant watchfulness is necessary to keep them alive, realize how impossible it is that this care should be given them by the average purchaser.

Birds born and reared in captivity, like the Canary, are the only ones that real humanity should keep behind bars. There is no more condemnable habit than allowing children to take nestlings of any kind, and try to feed and rear them; if disaster overtakes the parents, a responsible adult should be the one to endeavor to succor the brood.

Nominally, the traffic in caged wild birds has ceased; actually, it has not; nor will it until every bird-lover feels himself responsible for staying the hand that would rob the nest, whether it is that of the ignorant little pickaninny of the South, who climbs up the vine outside the window where you are wintering, and sees in the four young Mockers in the nest just under the sill a prospective dollar, the child at home, who likes to experiment for a few days with pets and then forgets them, or the wily dealer, who sells *sub rosa* what he dares not exhibit. No quarter to any class who make prisoners of the wild, outside of the Zoölogical Gardens or private aviaries where the proper conditions exist.

Any free citizen prefers death to loss of liberty, and even the literalists will, at least, allow this human quality to Citizen Bird, while it proves that he or she who either cages or buys the captive wholly to lack the spiritual quality.

Should we make prisoners of

“The ballad-singers and the Troubadours,
The street musicians of the heavenly city,
The birds, who makes sweet music for us all
In our dark hours, as David did for Saul.”?

—H. W. LONGFELLOW.

Questions for Teachers and Students

When does the Indigo bird come in Spring? How far north does it travel? How is its color different from the blue of the Jay and Bluebird? Is the caging of wild birds ever right? Why was the Indigo bird popular as a pet?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Membership in the National Association

- \$5.00 paid annually constitutes a person a Sustaining Member
- \$100.00 paid at one time constitutes a Life Membership
- \$1,000.00 paid constitutes a person a Patron
- \$5,000.00 paid constitutes a person a Founder
- \$25,000.00 paid constitutes a person a Benefactor

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS (Incorporated), of the City of New York.

"I go to prove my soul!
I see my way as birds their trackless way;
I shall arrive: what time, what circuit first
I ask not; but, unless God send His hail
Or blinding fire balls, sleet or stifling snow,
In some time, His good time, I shall arrive;
He guides me and the birds. In His good
time."

The bird and animal lovers will arrive at the goal of their hopes, "In His good time," but the way to mortal eyes seems dim and undefined very often and is beset by many an obstacle placed by indifference, or, what is far worse, selfishness and greed. The altruistic has not been reached, by any means, although bright gleams of sunshine often cheer our way. When public officials take the time from their busy lives to pen such sympathetic words as the following, which came from Governor Davidson, of Wisconsin, it shows that "He guides." "I assure you our Audubon Societies will ever find me ready to lend any assistance in my power to protect the wild birds and animals of our country." Doubtless there are many other men who occupy positions of public trust who have the same feeling at heart but,

unfortunately, they do not take the time to express it, and thus the influence of a word from them is lost. Another gleam of sunshine from a well-known public man, James Lane Allen, whose pen gives pleasure to so many, will serve as a guide to others who probably have the same sympathy at heart but have not yet expressed it in a like practical manner:

"I am today in receipt of your letter of 18th of June, requesting me to become a sustaining member of the Audubon Societies. It gives me pleasure to do so, and my cheque in payment of the annual dues shall be found herein enclosed.

"I should have become a member long ago, if I had been asked—since the aims of the Association appeal to me very strongly."

Members and readers, please recollect that the work of the Association is expanding daily and that our great need is a largely increased membership and a greater endowment in order to carry on the work to which we have placed our hands; that is, to protect and conserve the wild birds of the country, Nature's own check on the undue increase of insect pests. Do you know the annual loss occasioned by destructive insects in the United States? If not, the following will give you some facts which surely will be of interest to you.

Product	Value	Percentage of loss	Amount of loss
Cereals	\$2,000,000,000	10	\$200,000,000
Hay	530,000,000	10	53,000,000
Cotton	600,000,000	10	60,000,000
Tobacco	53,000,000	10	5,300,000
Truck crops	265,000,000	20	53,000,000
Sugars	50,000,000	10	5,000,000
Fruits	135,000,000	20	27,000,000
Farm forests	110,000,000	10	11,000,000
Miscellaneous crops	58,000,000	10	5,800,000
Animal products	1,750,000,000	10	175,000,000
Total	\$5,551,000,000		\$595,100,000
Natural forests and forest products			\$100,000,000
Products in storage			100,000,000
Grand total			\$795,100,000

The above table was prepared by Prof. C. L. Marlatt, Assistant Entomologist, United States Department of Agriculture, and was published in the "Year Book," 1904. Professor Marlatt says, "In no country in the world do insects impose a heavier tax on farm products than in the United States. The lessening or prevention of this loss is the problem for the economic entomologist to solve." The members of the National Association are doing their part to solve the problem. Every wild bird that is saved is an additional natural check. Reader! Have you among your possessions a tree or bit of land that you cherish and love? Then encourage the wild birds to dwell with you; be an example to your neighbor, and also help the Association to spread its propaganda everywhere.

"In some time, His good time, I shall arrive."—W. D.

The Audubon Club in the Bahamas

Perhaps nowhere in the world are birds more needed than in Nassau, New Providence. Ants infest the gardens, borers riddle the trunks of the most useful trees—in short, nothing but the lynx-eyed, hungry bird is able to cope with and check the ubiquitous West Indian creeper and crawler. And yet, strangely enough, birds are scarce throughout this beautiful island. Tourists, enamored with Florida's glorious song-birds, complain of this defect in our favorite winter resort, which, climatically, is unequalled. Various causes are assigned to the phenomenon, as the absence of running streams, etc. But the main cause is this: the native children are incessantly catching and killing the lovely bright-plumaged native birds. Sapodilla-gum, traps—all possible devices are utilized to this unspeakable end.

Convinced by long observation that, once the value of the bird, and the joy of cultivating his acquaintance in the tree, could be brought home to these children, the problem of bird protection would be solved, I began in the winter of 1906 distributing Audubon Bulletins, with short informal talks; the response was a surprise. A num-

ber of young colored men formed themselves into a police-corps for the protection of the birds. Now any boy detected with a bird tied by the leg to cap or buttonhole, with a bit of string, is promptly seized, and, if necessary to the release of the victim, is thrashed, and the frightened, often injured, bird is after some careful nursing set at liberty. In short, so much interest has developed that three Bird Clubs are now regularly organized. One, the "Nassau Audubon," has a membership of intensely interested little white girls. Another, the "De Lancey-Town Audubon," is made up of young colored men and is doing a splendid work. The third is a club of eighty school children of Nicoll's Town, Andros Island. These children have made a marvelously practical move by planting guinea corn for the birds around the school yard. A fourth club is now forming under the leadership of another Andros Island boy in the settlement of Fresh Creek. Herbert, who visits Nassau from time to time in his father's boat, loaded with kindling-wood, strayed into my cottage; to my questions whether birds were abundant in Fresh Creek, and whether he clubbed and trapped them, he laughed and answered "Yes'm." A set of Bird Bulletins to read and carry to his school-teacher with the usual "talk" persuaded Herbert that there was a lot more in the bird than he had ever dreamed of. A month later, a letter came from Herbert, brought direct to the cottage by a brother, because he had "done forgot how to spell your name." He wrote that he had "got into many a strife" and been taunted with indulgence in "fool talk" through his advocacy of the cause of the birds. He ended with "I am getting on fine with the birds. O, I love them and all what you say is true." Two months later, the day before we sailed, he again appeared on the porch. He was overjoyed to find on our table a package of magazines and newspapers addressed to him, and which we were just about mailing. On May 23, he, with other faithful friends, carried our many bags and baskets aboard the tug "Colonia," said "good-bye," and went back to his isolated island home cheered and enheartened by

"love for the bird." Outside the harbor, where we boarded the "*Vigilancia*" four members of the young men's club bade us "God speed," with a cheery promise "*to look after our birds.*"—ALICE M. BOYNTON

Legislation.

NEW JERSEY.—In April BIRD-LORE the passage by the House of an anti-spring shooting bill for wild fowl and shore-birds was reported. When the bill reached the Senate, it was referred to the Committee on Game, consisting of three members, one each from Bergen, Monmouth and Ocean counties. At the hearing in the Senate Chamber, the professional gunners and those interested in the preservation of shooting, but not of the birds, were out in full force. They had no arguments to advance of a scientific or economic nature, but their strong plea was that they had always shot birds in the spring and still wished to do so and that it did no harm, and their gain and pleasure should not be interfered with by sentimentalists. One of the advocates of spring shooting was a clergyman and some of his ornithological statements were of such a remarkable character and so entirely new to all of the scientists present that one was led to wonder whether his ecclesiastical lore might not have been obtained in the same school. The bill was never reported out by the Game Committee and consequently the lack of wild fowl and shore-bird law still exists in New Jersey. Without exception this Commonwealth has the most barbaric law regarding wild fowl and shore-birds that now is extant in any part of the continent of North America. Further, it is deceptive and misleading, for it seemingly provides a close season for ducks and snipe, but it is so carefully arranged that the period that is closed by law is only when there are no wild fowl or shore-birds in the state. Repeated visits to Trenton were made by those interested in the passage of the anti-spring-shooting bill to urge on the Game Committee to let the bill be passed upon by the Senate as a whole, and not to have the Committee decide a question which was of interest to the entire state. Every possible

argument and legitimate influence was brought to bear on the Committee, but without avail. The bill was killed in Committee by a vote of *two* to *one*. And thus the people of the state of New Jersey were deprived of their unalienable right to have a voice in the making of the laws that they are subject to. Legislative committees, as death-traps for bills, are far too prevalent at the present time. This is death to statesmanship, for a legislator is now valued far more for his ability to steer a bill to Committee and there advance or kill it, than for ability to expound to his fellow legislators, in public debate on the floor of the chamber, the worth of a measure or explain why it should be defeated. In the present case the whole state of New Jersey was disfranchised by the action of two men, and yet not another legislator raised his voice in protest. Is not government by the people a farce in such cases? However, it is, after all, the fault of the people themselves for not taking enough interest in legislation to keep in touch with the work of their representatives and when they do or do not approve of measures to speak plainly and forcefully.

NEW YORK.—In April BIRD-LORE attention was called to the bills to prevent sale of wild fowl after the close season and also to stop the cold storage of any birds or game. The Legislature was in session almost six months, yet these bills were never reported out by the committees in charge, although persistent effort to that end was made by repeated visits to Albany, by letters and by all other legitimate means. The lack of this legislation is a serious defect in the game laws of New York. This is another case where the criticism made of legislation in New Jersey will apply with equal force. All of this emphasizes the urgent need for Federal control of all migratory birds. So long as there is divided control over creatures that are in one state one day and in another the next, satisfactory protection cannot be given them. It is practically impossible to get the legislatures of all the states to look at the matter in the same light. It is a serious subject and one that deserves the closest attention from the public. As a marked example

of the need for Federal control, take the case of wild-fowl laws in the states of New York and New Jersey. During the northward migration, wild fowl can be killed in the latter state, but cannot be in the former, although the two great wild-fowl resorts of Barnegat Bay (N. J.) and Great South Bay (N. Y.) are only a few miles apart. It is a manifest injustice to the citizens of New York that New Jersey permits the killing of wild fowl during the spring, and it is a still greater injustice to the citizens of the whole country that on one side of an arbitrary geographical line migratory birds may legally be killed, while on the other side of the line they may not be. The only remedy for this inconsistency is to place all migratory birds under Federal control. Several feeble attempts were made to pass local bills permitting spring shooting of wild fowl and snipe, but they were successfully combated. However, were it not for the vigilance of the National Association in all legislative matters, a flood of such bills would be passed each session.

Very early in the session foreign-game-sale bills were introduced in both branches of the Legislature. The Committees to which they were referred were seen at once and an agreement was obtained from the Chairman that before the bills were reported the National Association should have a hearing, when it could present reasons why the bills were undesirable and a formal protest against their passage. A hearing was not called for, and it was supposed that the advocates of the bills had abandoned them. In the Assembly in this state, about ten days prior to the close of the session, all unfinished legislation is taken from the hands of Committees and is placed in charge of the Rules Committee and thereafter no hearings are held. Much to the surprise of the executive of the Association a bill to amend Section 33 of the Game Law was introduced by a member of the Rules Committee. This amendment was the old Foreign Game Sale Bill in another form, but with all its vicious features. This necessitated another trip to Albany; a stay was obtained for a few days to enable the Association to prepare a brief, showing why the proposed amendment was

undesirable legislation. To prepare such a brief necessitated a trip to Washington to consult experts on the subject. A copy was sent to Governor Hughes, and also to many of the most prominent and influential members of both the Senate and Assembly. Nothing further was heard of the bill.

The brief was as follows:

Brief on Assembly Bill No. 2769, Entitled An Act To Amend Section 33 of the Forest, Fish and Game Law Relating to Certain Varieties of European Birds.

This bill proposes to authorize, in any city of the state having a population of more than a million, the sale during December, January, February, March and April, of five species of foreign game birds, namely, Egyptian Quail, Red-leg, Lapwing, Russian Grouse, and Rebhühner; attempts to impose a tax of one cent on each bird imported; and provides for the appointment of at least two special officers at a salary of \$1,500 and an allowance of \$1,000 each for traveling expenses—a total annual expense of at least \$5,000—for carrying out the provisions of the Act.

This bill (1) contains provisions in direct conflict with the constitutions of New York and of the United States; and is also (2) defective in title; (3) bad in form; (4) bad in policy; (5) class legislation.

(1) *Bill Unconstitutional.* In so far as the bill provides for imposing a tax on birds imported, it is clearly in conflict both with the Constitution of the State of New York and the Constitution of the United States. On p. 4, line 1, occurs the provisions:

A person, firm or corporation importing said game shall, upon the arrival of said game into the port of New York, pay a tax of one cent per bird to the Forest, Fish and Game Commission, to be paid by said Commission into the treasury of the state of New York in the same way as other moneys are received and transmitted into said treasury by said Commission.

No statement is made as to the reasons for or objects of the tax and the bill is, therefore, clearly in conflict with the provision in Section 48 of the State Constitution, which declares:

Every law which imposes, continues or

revives a tax shall distinctly state the tax and the object to which it shall be applied, and it shall not be sufficient to refer to any other law to fix such tax or object.

The bill is also clearly in violation of Art. 1, Sec. 10 of the Constitution of the United States relating to import duties. The Supreme Court of the United States in passing upon a provision enacted by the state of Maryland in 1821, almost identical with the tax provision of this bill, held in *Brown v. Maryland* (12 Wheat. 419) that:

An act of a state legislature, requiring all importers of foreign goods by the bale or package, etc., . . . to take out a license, for which they shall pay \$50 and, in case of neglect or refusal to take out such license, subjecting them to certain forfeitures and penalties, is repugnant to that provision of the Constitution of the United States which declares that "no state shall, without the consent of Congress, lay any impost, or duty on imports or exports, except what may be absolutely necessary for executing its inspection laws;" and to that which declares that Congress shall have power "to regulate commerce with foreign nations, among the several states and with the Indian tribes."

The principles here laid down have been applied, reiterated and relied upon by the same court in subsequent decisions so often that this decision is now generally regarded as a leading case for the guidance of courts in the interpretation of this section of the Constitution.

(2) *Title defective.* The title is defective:

(a) In purporting "to amend Section 33 of the Forest, Fish and Game Law relating to certain varieties of European birds." Section 33 of said law relates primarily to the protection of non-game birds native to the state of New York, not of European birds, or of game birds. It therefore attempts to amend a section which in reality has no existence as there is no "Section 33 relating to certain varieties of European birds."

(b) The bill attempts to amend Section 33 by deliberately inserting two subjects, each separate and distinct from the subject-matter of the original section (1) the sale of certain game birds imported from Europe, and (2) the imposition of an import tax.

(c) The bill is manifestly a local measure in that it applies only to cities which have a population of more than a million, that is, to the city of New York, and as such, its title is in violation of that provision of the Constitution of New York (Sec. 40), which declares that "No private or local bill . . . shall embrace more than one subject and that shall be expressed in the title."

(3) *Bill Bad in Form.* The subject-matter of the Forest, Fish and Game Law is arranged in an orderly manner, and to facilitate reference to the various topics, each special subject is placed in a separate section which is given a distinctive number. The amendments proposed in this bill have no relation to the subject-matter of Sec. 33, but relate primarily to the sale of Grouse and Quail, and as such, should be given a distinctive number following either Sections 28 or 29.

The bill is ambiguous. (a) In authorizing sale of *European* game but allowing importation of *Egyptian* Quail; (b) in allowing sale of Red-leg without specifying whether the birds intended are Red-legged Partridges, Red-legged Sandpipers or Red-legged Ducks; (c) in permitting sale of Russian Grouse which may cover a number of species, some of which are indistinguishable from native birds; (d) in permitting sale of 'Rebhüher,' which is not a recognized name in this country of any game bird, but merely a German name that should be translated into the common English equivalent of 'Gray Partridge'.

(4) *Bill Bad in Policy.* (a) The bill is opposed to the general policy of the state in breaking up the practically uniform close season for the sale of game under existing law.

(b) It is opposed to the policy of the state in making a distinction between imported and native game.

(c) It is a direct reversal of the policy of the state maintained at considerable expense to the taxpayers and upheld by the Court of Appeals in the cases of *People ex rel Hill v. Hesterberg, Sheriff* (1906), and *People v. Waldorf Astoria Hotel Co.* (1907).

(d) The bill is bad in policy in attempting to amend Section 33, a section which

has already been re-enacted three times (in 1901, 1902 and 1903) since it was originally passed in 1900, which has been construed by the courts and the language of which is now in a form which is generally understood.

(e) The bill is bad in policy in authorizing an expenditure of \$5,000 or more for the employment of two special officers, without the powers of ordinary protectors, who may be on duty less than half the year solely for the purpose of inspecting the transactions growing out of the importations of a single firm. How extensive these transactions may be is perhaps disclosed by the tax clause which is evidently intended to reimburse the state for the cost of inspection. At this rate, the importations would aggregate at least 500,000 birds per annum.

(5) *Class Legislation.* The bill is evidently drawn in such a way as to be general in form, but by restricting its operation to "any city of the state having over one million in population," it is practically limited to the city of New York. In fact, on p. 4, line 1, the mask of general form is thrown aside in the declaration that "a person, firm or corporation importing said game, shall, upon the arrival of said game into the port of New York pay a tax, etc.," ignoring the fact that such game might be imported via Canada through the ports of Buffalo, Niagara Falls, Ogdensburg, Plattsburg, Sag Harbor, Oswego, Rochester, Dunkirk, or Cape Vincent. The measure will work injustice and hardship to every other city in the state and to every game-dealer outside of New York by granting exclusive privileges in Greater New York for the importation and sale of five kinds of foreign game birds in large quantities during four months in the year when the season is closed elsewhere in the state. Careful scrutiny of the history of the measure and of the restrictions of the "person, firm or corporation importing said game" will reveal the fact that the bill is as clearly drawn in the interests of a single firm as if its title were "A bill to benefit A. Silz & Co., of New York City."

MASSACHUSETTS.—The bill referred to in February BIRD-LORE to "Authorize the

Fish and Game Commission to take certain unimproved lands upon the Island of Martha's Vineyard" passed the Legislature and is now a law. This act is really for the purpose of enabling the Commission to conduct a scientific experiment of the greatest value and interest, i. e., to preserve the very small remnant of Heath Hens from extermination. This sole remaining colony of a once numerous species of Grouse is in an ideal situation in which to conduct the experiment. Not more than one hundred birds still remain, and the question of whether a species so close to extermination can be indefinitely continued will be watched with the greatest interest by scientists in all parts of the world.

CONNECTICUT.—In addition to the other excellent game and bird laws adopted by this state during the present legislature, a law was secured providing for hunting licenses for residents, non-residents and aliens. A law was also passed "making the possession in the open air on Sunday of any implement for shooting, *prime facie* evidence of an intention to hunt."

Certainly the citizens of Connecticut have reason to be proud of the very advanced position held by the Commonwealth in the great economic question of bird-protection.

A Bison Herd in the Adirondacks

The legislature of New York appropriated \$20,000 for the purchase of a herd of Bison to be placed in the Adirondacks. Governor Hughes vetoed the item, in view of the many other demands on the treasury of the State. In Massachusetts the citizens interested in the perpetuation of the Heath Hen did not ask for a state appropriation, but raised the money themselves to carry on the experiment. Had the same method been taken in this state, Governor Hughes probably would have conceded the use of the necessary public lands. Both of these instances emphasize the importance of not permitting a wild species to approach so near extermination as the Bison and Heath Hen, and also emphasizes the need of the proposed ten years closed season for the Wood Duck.



WOOD DUCK

Order—ANSERES
Genus—AIX

Family—ANATIDÆ
Species—SPONSA

THE WOOD DUCK

By WILLIAM DUTCHER

The National Association of Audubon Societies

SPECIAL LEAFLET NO. 10

(Supplement to Bird-Lore, Vol. X, No. 4, July-August)

The object of this leaflet is to call the attention of the American public to a condition that now exists, but which it is hoped may be remedied by concerted and prompt action on the part of all those who love the beautiful in nature and are willing to guard it.

When Audubon wrote his account of the Wood Duck in 1835, only seventy-two years ago, he referred to their very great abundance in such statements as follows: "At Boston, where I found them rather abundant during the winter"; "I knew a person in South Carolina who caught several hundreds in the course of a week"; "For my own part, I assure you, I have seen hundreds in a single flock." That they were abundant even as late in the last century as in the seventies is well established by reference to Dawson's 'Birds of Ohio,' published in 1903, in which it is stated "Thirty years ago Wood Ducks were killed by wagon-loads every spring."

Dr. A. K. Fisher, Ornithologist of the Biological Survey, United States Department of Agriculture, was the first to call attention to the growing scarcity of the Wood Duck in an article entitled 'Two Vanishing Game Birds,' published in 1901. He said, "Unless strong protective measures are soon adopted, the Woodcock and Wood Duck, two popular and valuable game birds, will become extinct."

In order to secure late data, inquiries were made in all parts of the continent, and the information received came from so many points that it can be relied on to fairly represent the present status of the Wood Duck. The consensus of opinion is that the Wood Duck has become alarmingly scarce. Many reports were received showing that this species has entirely disappeared as a breeder in the sections referred to, while others used such terms as "Absolutely disappeared," "None," "Very rare migrant," "Have seen but one in twenty years," "Decrease 60 per cent—70 per cent—90 per cent." Quotations from the reports might be continued indefinitely, but they would all be of the same general tenor; although, in some localities near the center of distribution of the species, the reports were not quite so alarming. However, nearly every report showed in the most emphatic manner that the time has arrived when the most heroic means must be taken to stop the decrease.

There are several very potent reasons for the rapid decrease in the numbers of the Wood Duck which are worth careful examination. Some

Reasons for
Scarcity

of these it is possible for man to remedy, while others are inherent in the habits of the species itself and thus are beyond the direction of mankind. The habits of the Wood Duck, which is often known as the Summer Duck and in some portions of the South as "Branchu," differ greatly from other wild Ducks. This species, as its name indicates, is not a bird of the ocean or even the wide coastal bays, but is found about the swamps and inland streams and ponds, especially those bordered by timber. Contrary to the usual habits of Ducks, it nests in trees, generally in holes or natural cavities.

Its tree-loving habit is one of the causes of decrease. The increase of population in this country, and the consequent clearing of the land for agricultural purposes, the ruthless destruction of the forests and the draining of swamp-lands, have lessened the number of breeding sites; this applies particularly to the eastern and middle-western section of the country. In many localities where the Wood Duck was known to breed until within a few years, it is not now found, owing to the fact that every tree suitable for nesting has been cut down. This cause of decrease is largely due to the habits of the species, and in some degree to the unwise practice of deforestation, which unhappily is so common in these days. When the citizens of the United States wake up to the fact that it is criminal to cut down all the forests, the homes of the Wood Duck will be saved; but, at the present rate of decrease of this species of Duck, it may then be too late to be of avail.

Spring-
Shooting

Another cause, and probably the greatest, is spring-shooting. The Wood Duck is a species of very wide distribution on this continent, and in some portions therefore, it is practically a resident. For this reason, the species has suffered far more than any other of the wild fowl by the wasteful practice of spring-shooting. The killing of any species of birds while on the migration to the breeding grounds or after they have reached there, is indefensible, and, in these days of increasing intelligence respecting the value of birds, both economic and æsthetic, is becoming more and more repugnant to the self-respecting sportsman. Until spring-shooting is absolutely prohibited, both by law and sentiment, the wild fowl of this continent, as well as all other migratory game birds, will decrease. Let us examine for a moment how spring-shooting affects the Wood Duck. This species, according to Audubon, pairs about March first in Louisiana and as far north as Kentucky, and sometimes a fortnight earlier; in the middle states about April first, and still later as it approaches the northern limit of its range. One of the writer's correspondents in Louisiana, who states that his knowledge of the "Branchu" is derived from fifty years' experience as a sportsman, claims that these birds "pair off or mate during the month of December, and from then on until February they prepare for breeding. On the 11th of May (1907), on my way to the fishing haunts, I came across a flock of young, fully four weeks old." A

report from Kansas states, "Early in April, 1906, examined a female Wood Duck, killed by a local hunter; the ovaries contained partly developed eggs." A correspondent at Princeton, N. J., states, "In 1905 a pair were killed here late in April, after two eggs had been laid in their nest." Still another reporter, in Utica, N. Y., states, "Saw female killed April 15th, which contained a well-developed egg." A well known ornithologist at Portland, Maine, says, "Wood Ducks reach us mated, and spring-shooting of mated birds has no doubt had a potent influence toward decrease." From the evidence given above, it is fair to assume that the Wood Ducks that are resident in the Gulf states certainly mate early in February, with some evidence that pairing takes place earlier, and that mating has already taken place when the migratory numbers of the species reach the northern limit of their range. It is, therefore, a self-evident fact that every Wood Duck that is killed after January first is a strong factor in the ultimate and early extermination of the species. There are no words too strong to use in condemnation of the unscientific, wasteful and depraved practice of killing mated and breeding birds. A sportsman who has any self-respect or regard for the rights of future generations will not engage in spring-shooting.

A glance at the accompanying map, showing the 1907 open seasons for Wood Ducks will demonstrate to the reader what a terrible drain on the species spring-shooting is, for the diagram shows that, in the fifty-seven states and provinces, thirty-eight legalize the shooting of Wood Ducks during all or some part of the spring. It will also be noted that six states, nearly 10 per cent, give the Wood Duck no protection whatever, but allow it to be killed whenever it is found in the state. It may also be noted that, in several of the states where no protection is given, the Wood Duck is a resident, which renders the entire lack of protection a far more serious matter than if the species were only a summer visitor for the purpose of breeding. Is it strange that by reckless waste, this species of wild fowl is rapidly becoming exterminated?

Summer-Shooting Wood Ducks are greatly attached to their breeding places, and are gentle and rather unsuspecting. This very fact is often the cause for the complete annihilation of an entire family, where summer-shooting is allowed. Several of the reports received give this as one of the important reasons for the decrease of the species, stating that in some cases, even before the open season, entire broods are killed by one or two pot-shots, and that in many sections the entire hatch of a season is killed on the first day for legal shooting.

Other Causes There are several other reasons for the decrease that may be mentioned, but cannot be considered in detail: the very great increase in the number of gunners; the marked improvement in guns,—compare the old muzzle-loading shotgun with the present breech-loader and the magazine gun; the great number of gasolene launches

that are on the lakes and streams, which can cover more space in an hour than a boat propelled by oars could in a day; the natural enemies, such as the Great Horned and the Barred Owls that live in the same territory with the Ducks; the turtles, snakes and large predatory fish that are known to destroy the ducklings when they are first led to the water. With so many artificial, as well as natural enemies to deplete, the numbers of Wood Ducks, it is imperative that drastic action should be taken *at once*, to prevent the total extermination of the species.

There are several methods by which the rapid extinction of the Wood Duck may be prevented, the first of which is to have Congress pass a law placing all migratory birds under the control of the Department of Agriculture. Federal control of such birds is undoubtedly constitutional. To secure such beneficial legislation is a matter of time and education; the public need to be shown the necessity for such action, and the legislator must be shown that his constituents demand that the birds that cannot secure uniform legislation for their protection by state laws must get it through Congress. In the interim, the second method may be employed, which is to secure in every state and province where the Wood Duck is found, either as a resident or migrant, legislation making *a closed season for ten years*. There should be a heavy penalty for the slightest violation of the act, either by shooting, possession, offering for sale, or the destruction of nests or eggs. Two states, Massachusetts and New Hampshire, have already adopted such a statute,—but only for five years from 1907. In addition to such a law, which is imperatively necessary at this time, it is recommended that all the clubs of the country which control large preserves, and individuals owning estates where suitable breeding places are found, should engage in the experiment of raising Wood Ducks, which at the end of the breeding season could be liberated. With a ten years' close season and breeding by public-spirited citizens, this beautiful species of American wild fowl may be prevented from following in the steps of the Bison, the Passenger Pigeon and others of the wild fauna of the continent that the present generation of nature-lovers are lamenting the loss of. Shortly, it will be too late to take action. This is an appeal to the ornithologists, who still have scientific facts to discover; to the true sportsmen, who are willing to refrain from reducing a species of game-birds to the verge of extinction, and to the nature-loving men and women of the country, who desire the added beauty of all wild life, to join in the demand that not another Wood Duck shall be killed for a period of ten years, to enable a fast-disappearing species of wild fowl to recuperate its wasted and depleted ranks. Do not read this paper and idly pass it by, but join in the movement, actively and aggressively; nor cease your good work until it is known that success has been achieved, and that the Wood Duck is no longer in danger of being classed as an extinct species.

CLOSE AND OPEN SEASONS FOR WOOD DUCKS IN 1907

NORTHERN STATES												
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Maine												
New Hampshire												
Vermont												
Massachusetts												
Rhode Island												
Connecticut												
New York												
New Jersey												
Pennsylvania												
Delaware												
Maryland ¹												
District of Columbia												
Virginia												
West Virginia												
Kentucky												
Ohio												
Michigan												
Indiana												
Illinois												
Wisconsin												
Minnesota												
Iowa												
Missouri												
Kansas												
Nebraska												
South Dakota												
North Dakota												
Montana												
Wyoming												
Colorado												
SOUTHERN STATES												
North Carolina ¹												
South Carolina												
Georgia												
Florida												
Alabama												
Mississippi												
Tennessee												
Arkansas												
Louisiana												
Texas												
Oklahoma												
New Mexico												
Arizona												
PACIFIC STATES												
California												
Nevada												
Utah												
Idaho												
Oregon												
Washington												
CANADA												
Alberta												
British Columbia												
Saskatchewan												
Manitoba												
Ontario												
Quebec												
New Brunswick												
Nova Scotia												

¹Seasons vary in different counties

J. A. ALLEN
Editor

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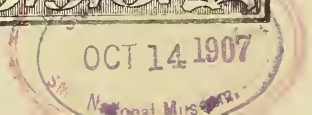
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*. Manuscripts intended for publication, books, etc., for review and exchanges should be sent to the Editor, at the American Museum of Natural History, 77th Street and 8th Avenue, New York City, N. Y.



Reduced facsimile of the reproduction of Horsfall's colored drawing of the Evening Grosbeak. Presented to every subscriber to Vol. IX, 1907, of BIRD-LORE. The original, printed on heavy plate paper, suitable for framing, is life-size.

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1. TOWNSEND'S SOLITAIRE.

2. MOUNTAIN BLUEBIRD, MALE.

3. MOUNTAIN BLUEBIRD, FEMALE.

(ONE-HALF NATURAL SIZE.)

Bird = Lore

A BI-MONTHLY MAGAZINE

DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. IX

SEPTEMBER — OCTOBER, 1907

No. 5

Bird Protection in Italy as It Impresses the Italian*

By FRANCIS H. HERRICK

Author of 'The Home Life of Wild Birds'

II

THE question of protecting wild birds is usually discussed in relation to their practical use to man, but, says Nigro Licò, there is also the question of humanity to be considered. If we drop the consideration of real or presumed usefulness, should the birds be protected out of regard for our esthetic feelings and our duties to humanity? Upon this point Sig. Salvadori is again quoted as follows: "As to the esthetic side of the question, I heartily agree that the birds are an ornament to the woods and fields, but who could deny that the butterflies are still more so? Is it not a pleasure to see, in the spring time, and to salute again the strawberry *Colia*, the gloomy *Antiopa*, the resolute *Io*, the great *Policlora*, all of them harbingers of the mild season? Why do we not dance with joy when one after another are present on the scene—the silent *Cavolaia*, the social *Pieridi*, the restless *Arlecchino*, the superb *Apollo*, the grave *Podalirio*, the playful *Licene*? Why is it not a pleasure for whomsoever is not a stranger to nature, to welcome these familiar friends, to study anew and to admire the varied colors with which they are clothed, their manifold forms, properties, and habits? Unfortunately, all of these graceful and attractive creatures, which contribute so much to the esthetic side of nature, all are more or less injurious, and on this account all are condemned to destruction."

"In respect to humanity, I would like, moreover, to ask in turn, is it a humane act, when, with a shot from a musket one brings down a Woodcock, a Partridge, or Grouse; when, with its legs broken or its bill crushed or split, it is condemned to a slow and painful death by hunger? We bird hunters, at least, do not torture any of our victims. Not a brief second passes between the shot and death. Why, on the score of humanity, should we not also speak of a prohibition of hunting? Such a construction of the law would in no way, I believe, receive official sanction, and further, I submit, it would be refused with entire reason."

*The first part of Professor Herrick's Paper appeared in the July-August number of BIRD-LORE.

This sounds well, but has not Sig. Salvadori confused the main point with subordinate issues? The great question raised is the protection of song birds, which, according to a large number,—probably the largest number of students, the world over,—are, upon the whole, of decided benefit to agriculture, and therefore to man, to say nothing of esthetics, and this question must not be involved with the Hindoo doctrine of the sanctity of all animal life. Invertebrates, like the insects, are not to be placed on a par with the highest expressions of vertebrate life. We all must and do acknowledge that hunting, whether for food or sport, entails inevitable hardship upon the animals. The rule for all to follow is: *No needless sacrifice of the life of any animals whatsoever, whether vertebrate or invertebrate*, unless (1) they are destructive to the life of man, or to his interests, especially in tilling the soil, and (2) unless they are of prime value as food. Where two living beings—the man and the animal—can not dwell together in peace and to mutual advantage the rule has ever been and must ever be that the weak gives way to the strong. Under the head of necessary food animals, come the domesticated kinds like the pig, sheep, and ox, various birds, and, as a compromise to the latent savage instincts of man in the present state of civilization, wild or preserved game, whether fish, flesh, or fowl. As to what shall be legitimate game among the mammals and birds, it should not be difficult to reach a common-sense agreement. No animal should be considered *game* which is not useful for food, and no food animals should be sought among the small and harmless mammals, or among the small or useful birds. Taking the life of the higher animals is an unpleasant, and, when needless, a cruel proceeding; but it is necessary unless the whole world is to be converted to a vegetarian diet. Nature, however, does not seem to expect this, and probably would not permit it, for in the alimentary tract of man she has made a luxurious provision for both the digestion and the absorption of proteids. Proteid is also stored away in the muscles and other tissues, to meet unexpected emergencies, like the storage bins of fat and starch in both plant and animal bodies. Now, since the animals are the great source of proteid, or nitrogenous food, it is evident that nature expects us to make a liberal use of them in our diet.

The laws and proposals of laws, as given by Licò, upon hunting in Italy, are interesting and instructive. As he remarks, those who are interested in the protection of birds, from whatever motive, confine their attention to laws to regulate hunting. Many assemblies have been held for this purpose, and many societies have been formed to obtain from the government the most judicious laws upon the subject.*

* We are told upon the authority of Comm. Durando, that the present laws which regulate hunting are those which were in force in the ancient Italian States. Thus, in the Neapolitan and Sicilian provinces the law of October 18, 1819 exists, and is still in effect; in what were formerly the Papal States, with the exception of the Marches, the edicts of July 10, 1826, and August 14, 1839 prevail; in Tuscany the law of July 3, 1856; in Modena the decree of February 6, 1815, and notifications of January 22, 1826; in Parma the royal resolutions of September 1, 1824, June 10, 1828, May 23, and 28, 1835; in Venice the law of February 13, 1804,

It is not surprising to hear it said that "the multiplication of so many different rules brings confusion and contradiction between regions but a short distance apart or contiguous, whence the negligence or the ignorance of the authorities to whom the execution of the law belongs; whence everything is in disorder in the development of rural economy everywhere so important, and especially in Italy."

What these varied and antiquated laws are in every case is not stated, but it is evident from the present practice, as already suggested, that they were framed mainly in the interests of the hunters, and not of the birds nor of agriculture.

What are the legal enactments demanded by those Italians who desire to really protect their birds? Licò quotes the statement of Sig. G. Spanna, made at the Congress of the Zoölogical Society, held at Turin, in October, 1898, and which may be summarized as follows: (1) To prohibit absolutely the hunting of birds by any means except firearms; (2) To prohibit the destruction of the nests of birds, taking or destroying the eggs, the young, the mothers; disturbing in any way the nidification, also with the design or pretext of training dogs for hunting, and this in whatever position the nest is found; (3) To prohibit the hunting with firearms from March 1 to August 15, in all Italy; (4) To make it penal to possess and to sell in public or in secret, during the time when hunting is forbidden, any birds, whether living or dead; in the hunting season it is legal to receive only those birds which have been killed by firearms, and on the bodies of each of which appears a wound from a leaden bullet, sustained by the living animal; (5) To prohibit at all times the sale of birds alive, in cages, or otherwise confined, excepting only foreign species, or those which are not migratory or resident in Italy; (6) To increase the tax upon hunting with firearms to such a sum as may correspond to the loss sustained by the public treasury through the suppression of the concessions for hunting with nets, snares, and every other forbidden means; (7) To declare as lawbreakers all who hunt in property not belonging to them, and in the neighborhood of lakes, ponds, or streams, and water-courses belonging to the provinces, to the municipality, or to private persons, without having previously obtained permission in writing from the proprietor, which is to be shown to the police officers whether public or private; (8) To the person authorized to proceed against the lawbreakers, and to the accusers, a share of the fine is to be given, as well as of the sums paid per head of the game seized; (9) In so far as regards the secondary rules, account is to be taken of the royal patents of what was formerly the kingdom of Sardinia.

The sponsor for these laws thus expresses his opinion regarding them: "Hunting, now-a-days, I am glad to say, is no longer a means of procuring food.* For a few is it a means of diversion and of ostentation in banquets. In either case,

and decrees of July 7, 1804, September 21, 1805, March 21, 1811, and the proclamation of July 5, 1615; in the provinces once forming the Sardinian States, and in those of Lombardy and the Marches the royal patents of December 29, 1836, July 16, 1844, and July 1, 1845.

It thus appears that the antiquated laws upon the shooting of birds in Italy date all the way from 1615 to 1856.

*This is hardly the case in Italy where shooting birds is often a means of eking out a living.

the pleasure and the luxury ought not to be obtained at a loss to the public economy, and, therefore, the coercive measures framed to protect it have to be such as produce efficient results."

Had the provisions recommended by Spanna been adopted in 1898, and stringently enforced throughout the Kingdom of Italy, not only that country, but the whole continent of Europe, would have been benefited. The proposals are designed to prevent wholesale slaughter by restricting the times and methods of killing wild birds. No discrimination is made between kinds supposed to be useful, useless, or injurious, so far as agriculture or any of the interests of man are concerned.

Considering the antiquity of the practice of killing birds in Italy without any discrimination whatever, and the state of public opinion upon the whole subject of bird protection, the proposals of Sig. Spanna are commendable, and if they were adopted and carried out they would mark a great stride in the right direction.

We learn further from Licò's Manual that demands for new and uniform laws to regulate hunting have not been made in Italy alone, but in other countries also. Since the migratory birds change their habitation at stated periods, it is for the interests of all countries through which they pass to protect them by common consent and for the common good. Again, we are told that a great ornithological Congress was held at Aix, in Provence, November 9-14, 1897, and another at Gratz, in Stiria, August 5-8, 1898. The resolutions passed at these meetings were considered by the different governments; but to the proposals made by France, with the concurrence of adjoining states, unfortunately, the Italian government did not agree.

From the preceding extracts it will be seen that those Italians who have given any thought to the subject of birds, in relation to man, are by no means agreed upon the desirability of evoking the aid of the law for the protection of birds of any kind. Licò presents both sides of the question from the standpoint of an intelligent Italian, and I hope it has been made sufficiently clear to what extent I am indebted to him for the substance of many of the preceding paragraphs. His conclusion of the whole matter, in which his own sympathies are clearly expressed, is given in the following sentiments: "Birds, like all other creatures endowed with feeling, ought not to be subjected to needless suffering on the part of man; they deserve his protection. This sounds well! Again, when everything is considered, birds do more good than harm. The conclusion is logical! But the excess of utility over damage is so great we should favor in all possible ways the multiplication of birds. How would that sound? This is a question to which we should give more direct attention, before insisting on new and definite results in the work of national and international legislation. Heaven forbid that a humanitarian cause like this should one day make its defenders repent of superfluous zeal!"

Thus, we are brought again to the main problem: "Should the birds really be protected?" as the Italians conceive it, but it cannot be discussed at the close

of this paper. My aim has been to give the view of the other side. But, we must ask, Are Salvadori, and Berlese and Licò, who voice their opinions, and the others of their school right in considering bird protection as a question of such grave doubt that they will not lift a finger to stay the slaughter? I believe that the Italians are right in some of their minor premises, but wrong in their general conclusion. So far as argument goes, it can be shown upon the broad general facts of biology that indiscriminate slaughter of the birds is very unwise. If birds are indiscriminate layers of insects, which is admitted on all sides, how much greater is the evil for man to become the indiscriminate slaughterer of the birds?

On the practical side, we are putting the question to a test in this country, where, thanks to the ornithologists and bird-lovers, and to the elaborate analyses of the food of birds made by the National Government, we are beginning to pursue a very general and uniform policy of protecting at all times as many of our wild birds as possible—a policy quite the reverse of that favored in Italy. If the other factors in the case can be equalized, time should soon show who is right and who is wrong.

It is difficult to prescribe for the patient who will insist that he has no ailment, but, nevertheless, we believe that a great reform is needed in Italy, in checking what we consider the insane and shameful slaughter of the song birds of Europe, during the migratory periods especially; but this reform must come from the Italians themselves. Possibly, foreigners can do something to favor the movement: at all events, it is for the interests of the other nations of Europe, and of Germany and France in particular, to see that this cause does not languish. From all accounts, a similar reform is needed in southern France and in Spain.

At some future time another international congress will be called to discuss anew the subject of bird protection, and to draft a uniform code of laws governing the destruction of migratory birds in all the countries through which they pass. An international court of arbitration should then be formed before whom, when necessary, every question in dispute can be brought, and, let us hope, settled, at appropriate times.



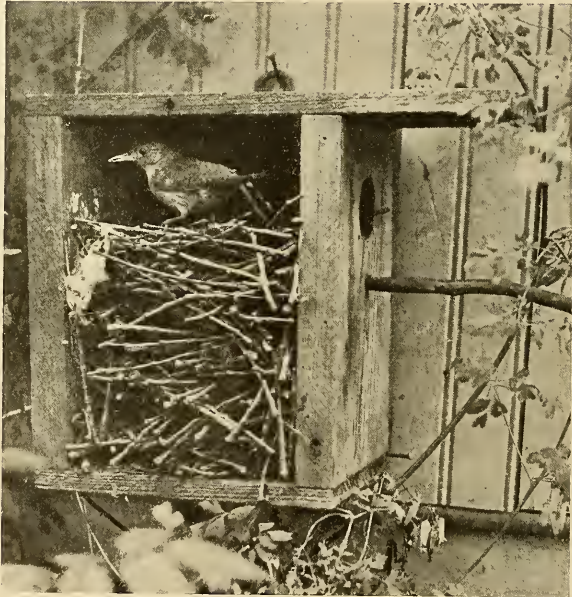
The House Wren

By FRED. L. HOLTS, Mankato, Minn.

With photographs by the Author

IT has been my pleasure for several summers to put up Wren boxes, and to watch their tenants. The tameness, audacity and nimble ways of the Wrens, and their exuberant twittering song make them delightful birds to have around a city home.

Wrens usually arrive in this locality about the second week in May, and go to selecting their homes very soon after arrival. I put up two boxes last year, and before they had been here a week the Wrens had begun to build in one box, and had preëmpted the other also by occasionally carrying material into it. This second box was later used for the second brood.

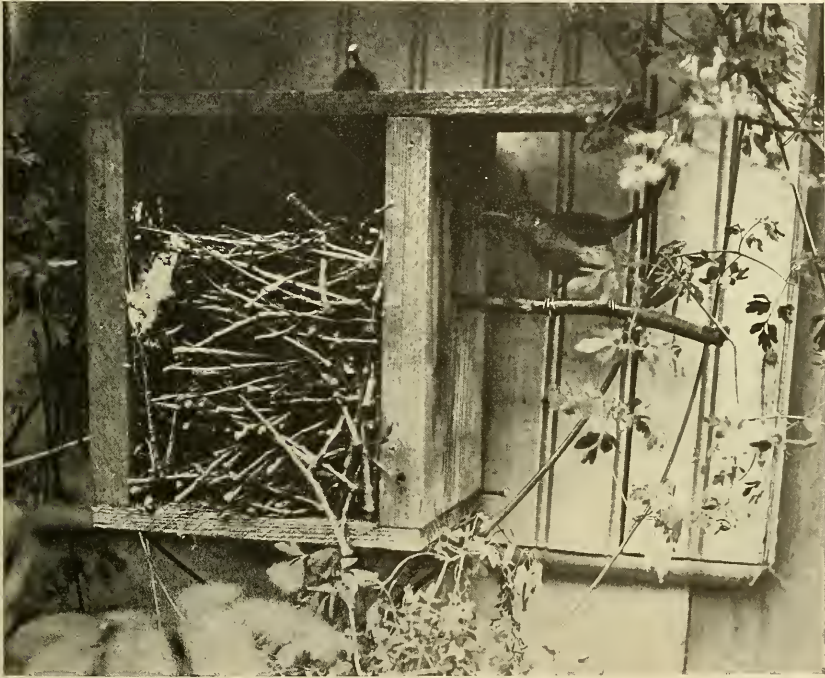


SHOWING THAT THE NESTING MATERIAL RARELY LEAVES ROOM FOR THE BIRD

I had no trouble in keeping the House Sparrows from the boxes. If the hole is not more than an inch in diameter, the Sparrows cannot get in, but the Wrens can. One winter I left the Wren box attached to a shed. A red squirrel took possession of it. He gnawed the hole large enough for him to enter. Next spring I fastened the box to a tree. I wished to test the statement I read in BIRN-LORD that the Sparrows would not build in a box attached to a swaying tree. The Sparrows soon discovered the box, went in and examined it, but, on thinking it over, decided not to build there. Later the box was used by Wrens which, however, were not

molested by the Sparrows. Parenthetically, I may remark that House Sparrows occasionally build rude nests in trees, in spite of their swaying.

Wrens seem to work in the early morning hours in collecting the nesting material. Sometimes, though rather rarely, I saw them at work during the day. The box is filled about two-thirds with twigs about six or eight inches in length. It is amusing to see a Wren picking up a stick by the middle and then poking it into the hole of the box endwise. The box is filled with sticks nearly to the level of the opening. This seems to serve as a sort of platform for the nest proper, which is made of grass and a few feathers.



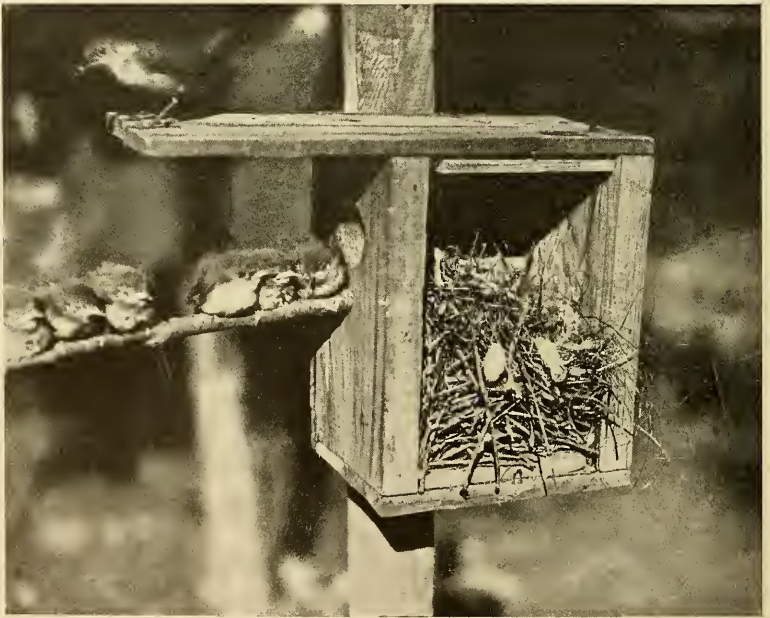
HOUSE WREN AND NEST

During the building and hatching period, the Wrens are shy and avoid going near the box when observers are present. But, when the young are hatched, the necessity of feeding them at frequent intervals makes the parents bolder. One may then stand within a few feet of the box while the old birds go in and out.

The male is an indefatigable singer from early morning to late at night. The song, though not especially melodious, is so rollicking and cheerful that one enjoys hearing it.

Wrens feed chiefly on the ground, skulking about under the broad leaves of vegetables, weeds and berry bushes picking up cutworms, moths and other insects.

Several broods are hatched yearly. The male shares in the household duties. Before the first brood is fully fledged, the female begins laying in the second nest. Possibly the preëmpting of a second box is forethought on the part of the birds. Toward the last the care of the first brood is chiefly left to the male. The young are unusually well-fledged before they leave the nest. In fact, they are able to fly fairly well several days before leaving the box. They are very clamorous for food and will thrust their heads out of the box to be fed. On finally leaving the nest the young are conducted to some brush-pile, in whose shelter, where cats cannot reach them, they may be heard twittering for several days. After the last brood is hatched the Wrens are rarely seen or heard in the city. They go to the fields and copses for the rest of the summer.



A HOUSE WREN FAMILY

A Study of a House Wren

By ELIZABETH FREEMAN TEN EYCK, Lansing, Mich.

I HAVE always wanted a Wren tenant, but, through pressure of affairs, especially at the proper season, I had failed to arrange the proper conditions.

Even now it was past the middle of June, and, if the wife of a professional ornithologist had not assured me it was not yet too late, another year would have passed without the Wrens in residence. In a storeroom I found an immense tin-cup which I suspended on a hook by its handle, under the porch in a good position for observation.

The Wrens were to be my company while the family went on a short tour, taking with them the life of the house—the boys. Boys attract other boys, so that the result of one boy in a family is a merry house. But there are compensations for loneliness and quiet which I was to learn.

A neighbor made me envious with two Wrens' nests for which she used common plant-pots, nailed up under a porch, the small drainage hole serving the purpose of a door.

It was but a little while before the cup was observed and a Wren began to carry in dry twigs, which, being of various lengths, many of them trailed outside, looking very untidy. This would never do. I threw out all this accumulated treasure and tied over the top of the cup a piece of shingle in which I had bored a small hole for a door. As the cup was hung up by its handle, the door, of course, was not perpendicular. For a few days it remained untouched. Then two birds quarreled for its possession until one gave up and went away. I should like to think that the one remaining in possession was the first comer whose work I had destroyed.

Many a sweet song was sung by the cheerful little workman, to the not-at-all lonely woman sitting on the porch, watching him. We like thus to think that the birds know us and care for us. Yet, I fear they are, in this respect, like a certain "friend" of mine, an unsuccessful elderly spinster who, I am sure, regards me in the light of a good, square meal! The dish of water, too, they like to have where they may drink and bathe, though I never saw the Wrens take advantage of it for either purpose.

Watching the little builder, I wondered at his faith, as he sang day after day for his mate. It required no little skill to manage the forked twigs that went through the tiny doorway. Coming sometimes wrong end first, as they did, the little bill slipped along until it reached the end which made it possible to pull and push it in. No pictures that I have ever seen of Wrens are like this one. He carried his tail on a line with his body, instead of perking it up at an angle; but perhaps this attitude comes later when the cares of a family crowd upon him and make him pugnacious.

In other years, a Wren had sung all summer long in a spruce tree near the house, the same sweet, monotonous, liquid trill. Why is it that a monotonous song can so fill the heart that it is ready to run over? The Whip-poor-will with his

three short notes always fills me with a homesick longing, and the years when I could not hear him have been many.

For days my Wren sang and labored on without a mate. When he absented himself for some time, I wondered if he had gone to Florida to fetch her, and whether, when she came (for the Wren's faith was contagious and I never doubted she would come), she would like the cup house. I had heard instances of the bride flouting the home prepared for her by her little mate and utterly refusing it, whether out of pure coquetry or obstinacy, or for good and sufficient reasons which she saw and he did not. Years ago I nailed up in a pine tree a shallow cigar-box in which a small hole was bored, and a male Wren at once began to build in it. The female refused it, and I considered her the more sensible of the two.

If the Wren of my porch in his absence had been South, he returned alone and sang on as cheerfully as ever. Dick, our canary, hung in the porch and the Wren often alighted on his cage to sing his bubbling song, perhaps taunting the caged bird on his imprisonment.

When at last the expected one arrived, it was a question in my mind, whether the bright silvery house provided attracted her, or the song of the preserving bird whose patience was now rewarded. I wondered, too, if it were his mate of last year or only a casual traveler who came. How could one find out? We know the ostrich mates for life, but I proved by my summer study that this is not true of the Wren. Very soon there was a tiny chocolate-colored egg in the nest. One could see it by lifting up the door, though the nest was in the farthest corner on the top of a pile of twigs that almost filled the cup. This was on the first day of July. There were then no decorations to the nest. On the fourth, when the shingle-door was lifted, the little bird flew out through the little hole with a sad little peep, the only sound she had been heard to make. If she only could have sat still for a minute in her dainty bower! Surrounding her were speckled hen's feathers each standing on its point, which was somehow woven into the nest, each feather being so placed as to curve over the nest. It was beautifully artistic (I feel as though every word of this sentence should be in italics), and may have been arranged by her mate while she sat on the nest, for she just fitted into her bower.

Do Wrens always build so daintily? I put this question to my neighbor, whose Wren's nest in nailed-up flower-pots and she answered carelessly that they always do. I doubted whether she gave thought enough to my question to answer properly, for, when the nest-box is in something you cannot open, how do you *know* what is inside? If I had put up a plant-crock for a bird-house, I should never have seen this remarkable decoration. On July 5, there were five eggs in the nest.

The birds seemed to get their entire living out of an adjacent pine tree, among whose needles were plenty of small insects. When they found an unusually large one, they flew down onto the gravel driveway, to master it. It was a bad habit. The

Wren that will see the danger in this habit, and refuse to do so, will have a better chance to live long. At the corner of the porch was a spreading funkia. Under it our cat loved to lie, though always driven away when found there,—he may have spent the night there. It is a question what to do with cats in the bird-nesting season. On the morning of the sixth, the tragedy must have taken place before I took my place on the porch, for the mother bird came no more. The male bird fretted for her and came and dropped a moth inside the nest, though he knew she was not there. He hung above the cup with his neck stretched down to look in the door, and then uttered his discontented call. Once before, when she was lost, he had used this querulous call and it had driven her back to the nest,—she was neglecting her duties. Now it was the only sound he made; there was no more song.

The family came home. If the boy could not see a nestful of young birds he should at least see the eggs! I went to the nest—the eggs were gone—not even a shell was left—and the eggs were not on the ground—there was nothing to show there had ever been an egg in the nest! The doorway was too small for any bird but a Wren to enter,—what had he done with those eggs? Some one said “He must have eaten them.” Perish the base thought!—until it is proved against him.

On the same day in which the loss of the eggs was discovered, the Wren was seized with a fury of industry, and back and forth from the nest to the pine tree he flew, each time carrying out a single feather and dropping it from his perch in the pine tree. When the feathers were all out, he carried out the hairs of which the nest was made till the last one caught about a twig and hung from his doorway. He did not carry out any twigs. What a sad piece of demolition it was. But, fortunately the little fellow had a short memory, for now, on the other side of the house, he at once began to sing for another mate; and the song which had before seemed so cheerful now seemed a very sad and lonely one. It was so late in the season to have his hopes blasted, and how could he expect another mate? As he sang, I counted ten, then counted ten between the songs,—the song and the silence were of the same length. Thus it went on, the bird occasionally coming to the side of the house where the porch with the empty nest was.

And one day she came and entered the little doorway, while his bubbling song and lifted quivering wings testified to his delight. But she came out of the little house, and flew away never to return. Did she feel there the presence of the ghost of the murdered bird? He followed her and never came back. In some happier spot where death had not been, they may have made another home and raised their brood.

An Attempt to Establish a Purple Martin Colony

By WM. C. HORTON, Brattleboro, Vt.

A COLONY of Purple Martins which for twenty five years had occupied a house at the home of Mr. Wm. C. Horton, Brattleboro, Vermont, having been killed by the exceptional weather of June, 1903 (See BIRD-LORE Vol. V, 1903, 164), Mr. Horton has attempted to establish a new colony by placing Martins' eggs under Tree Swallows. While his experiment has not met with success it is nevertheless encouraging and, from a purely ornithological point of view, exceedingly interesting.

Mr. Horton writes that the "experiment was tried under favorable circumstances, as the Tree Swallows were occupying my old Purple Martin house, and had been for three years. Five years ago, when the Martins left on their migration south, they numbered about eighty young and old."

FROM MR. HORTON'S NOTE-BOOK

May 31, 1907—Received four Purple Martin's eggs from J. Warren Jacobs, Waynesburgh, Pa.

June 1, 1907—I found six Tree Swallow's eggs in nest; four eggs were removed and replaced by four Martin's eggs.

June 6, 1907—I removed the other two Tree Swallow's eggs, leaving the four Martin's eggs, only. The Swallow was sitting on the eggs nicely.

June 16, 1907—7.00 A.M. Found one egg hatched.

June 16, 1907—6.00 P.M. Found two more eggs hatched.

June 17, 1907—7.00 A.M. Found the fourth egg hatched. The young Martins were doing well, their foster parents feeding them as though they were their own.

June 22, 1907—Young Martins growing and looking finely. Eyes not open yet and not a feather started. Foster parents feeding them nicely.

June 24, 1907—6.00 A.M. Young Martins progressing finely. Feathers beginning to show under the skin. Eyes just beginning to open. Foster parents are caring for them satisfactorily.

June 25, 1907—6.30 A.M. Young Martins' eyes about one-third open; feathers just beginning to show through skin.

June 26, 1907—This morning 6.30 A.M. I found the young Martins' eyes open; feathers well started through skin; tail feathers showing perceptibly. All were doing finely and were plump and fat,—foster parents giving them the best of care.

June 29, 1907—7.00 A.M. On visiting the Martin house, I found not one young Martin in the nest. One was found on the ground under the house, and from its appearance I should say it had been dead two or three days. I could not find the other three. What caused this disaster I cannot conceive, but it ended summarily my first experiment in trying to establish a Purple Martin colony.

The Migration of Thrushes

FIFTH AND CONCLUDING PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

TOWNSEND'S SOLITAIRE

THIS species breeds throughout the Rocky mountain region from northern Mexico and southern California to the valley of the Yukon, near Circle City, and the valley of the Mackenzie near the Nahanni Mountains; and from the Pacific coast to western Texas, western Nebraska and central Montana. Since it winters as far north as southern British Columbia and central Montana, its migrations are not extensive, and consist largely in passing from the winter home in the valleys to the breeding grounds on the high mountains. Most of the migration dates fall in the month of March.

MOUNTAIN BLUEBIRD

The Mountain Bluebird breeds north to southern Manitoba, southern Saskatchewan, Lesser Slave Lake and the upper Yukon; and winters north to central Kansas and northern California. It is one of the early spring migrants, as shown by the following dates: Northern Colorado, average, March 6, earliest, February 24, 1902; Cheyenne, Wyo., March 12, 1889; Custer City, S. D., March 17, 1897; Terry, Mont., average, March 25, earliest, March 20, 1903; Columbia Falls, Mont., average, March 23, earliest, March 9, 1895; Rathdrum, Idaho, March 1, 1903; Spokane, Wash., March 1, 1905; southern British Columbia, average, March 9, earliest, March 3, 1906; Banff, Alberta, April 2, 1903; Medicine Hat, Sask., April 6, 1894.

The latest date on which the species was seen in Los Angeles county, Cal., was March 14, 1895, and the earliest date of the return in the fall, October 31, 1897. The last birds leave southern Manitoba, on the average, October 13, the latest date being October 16, 1900. The latest date at Columbia Falls, Mont., is November 6, 1896; and in southern British Columbia, November 6, 1888.

Bird-Lore's Colored Plates

With the publication of colored figures of the Solitaire and Mountain Bluebird, the series of plates of North America Turdidæ is completed. It is proposed now to take up the Flycatchers, and the first plate of this series will appear in BIRD-LORE for December.

Much time is required in the preparation of these plates, and it is necessary now to select the group which will follow the Flycatchers. We ask our readers, therefore, to write to the Editor stating their choice of the next family to be treated.

The delay in the appearance of this number of BIRD-LORE is due to unexpected difficulties in the preparation of this plate.—ED.

The Starling in America

In the last issue of BIRD-LORE (Vol. IX, p. 172) the editor called for replies to the following questions concerning the Starling (*Sturnus vulgaris*) in this country:

1. When did the Starling first appear in your vicinity?
2. What is its status now?
3. Do you consider it a desirable addition to our avifauna?
4. If undesirable, give reasons why.
5. Do you know of any Starlings, other than those released in Central Park, which have been introduced into this country?
6. Was the introduction successful?

Several correspondents have responded to these questions serially, others in a general

way. All the replies are given below as a contribution to the history of this introduced species. It appears that although Starlings have been introduced at several localities in eastern North America (see the note of Mr. Morris beyond) only those birds released by the importer, William Bartels, under the direction of their purchaser, the late Mr. Eugene Schieffelin, have prospered. On May 16, 1895, Mr. Schieffelin wrote us that 80 Starlings were released in Central Park, New York City, on March 6, 1890, and that on April 25, 1891, 40 more were set free in the same place.

The city to the south, the Hudson river to the west and East River to the east proved, for a time, boundaries to range extension in those directions, and the bird spread more rapidly and more numerous northward into the country lying between the Hudson river and Long Island sound. Stonington, Conn., to the east, and Poughkeepsie and Newburgh to the north, mark the known limits of the Starling's range in these directions, while to the south it seems not to be established beyond Plainfield and Morristown, N. J., although a report has been received of its presence in Baltimore in the fall of 1906.—ED.



YOUNG STARLING AT ENTRANCE TO NEST
Photographed by A. L. Princehorn, New Rochelle, N. Y.

The Introduction of the Starling at Springfield, Mass.

In the early spring of 1897 nearly one hundred Starlings were liberated in a secluded spot in Forest Park, in Springfield, Mass. The next day two of these birds returned and entered the box in which they had been confined and which had been left at the place where they were let go, undoubtedly coming back for the food that they could obtain there. From that time, for nearly a year, nothing was heard from these birds by the persons who had released them. Then it was learned that

three had wintered in the town of Longmeadow, about five miles from where they had been liberated. I saw these three birds several times, but before the middle of spring they had disappeared. About that time it was reported by a farmer that at another place nearby a Blackbird had spent the winter in the vicinity of his house. Very likely this bird was a Starling, as Blackbirds only very rarely winter in this region. The meteorological conditions of the year following the release of these birds was about normal, except that in July the rainfall was almost unprecedented, nearly fifteen inches being recorded in Springfield for the month. Since the spring of 1898, the presence of an unconfined Starling within twenty-five miles of Springfield has not been noted by any competent observer.—ROBERT O. MORRIS.

The Starling at Norwalk, Conn.

Starlings were first discovered in Norwalk in the spring of 1900 by Mr. Frank L. Hummedieu, who called my attention to them. They were first seen by me on June 10, of that year.

They first located in the extreme southeastern part of the town, but now can be found in various parts of the town, they having increased much in number.

I have heard some complaints against them but I am apt to take it with a grain of salt and have plenty of leniency for them, and believe they do much good. Whether or not they will be a desirable addition to our avifauna, depends; some think not.—GEORGE P. ELLS.

The Starling at New Haven, Conn.

1. The first bird I saw at New Haven was on October 26, 1901. I did not see the species again until 1903, and the first nest that I saw was in 1904.

2. At present the Starling is a common bird in the city and in certain localities in the surrounding country. It is increasing. In the fall of 1906 I saw a flock in the salt marshes near Woodmont, Conn., which I estimated at about 1,500 birds.

3. I do not think that the Starling is a desirable addition to our avifauna.

4. According to my observations the Starling is much more fond of hollow limbs in apple orchards, etc., than the English Sparrow and, for this reason, is liable to have more effect on the Bluebird and others than the English Sparrow has had. In feeding habits I believe that they are largely beneficial, as they eat insects both in meadows and pastures, and from the terminal twigs and bark of elm and apple trees. In spite of this, they are probably not so valuable as the Bluebirds and others that they drive away, and are, therefore, not desirable.—A. A. SAUNDERS.

The Starling at Bethel, Conn.

The Starling was first seen in Bethel during the first week in April, 1907. On April 16 I saw a pair building in the clock-tower of the Congregational church. There was a shingle off on its southwestern corner and they were bringing dry grass from a sidehill nearby to this hole. I saw them nearly every day after this for about two weeks, when they seemed to disappear entirely.—ROBERT S. JUDD.

The Starling at New Haven, Conn.

I first identified the Starling in New Haven on March 4, 1903. I had been in this city only three months at that time and, judging by the numbers then present, I think that they must have been here as early as 1901.

The Starling is very common here and seems to be well established. My daily bird record, in which I record the birds observed every day, shows that in the 218 days from January 1, 1907, to date (August 5), I have recorded the Starling 213 times, although there are other sections of the city in which it is more abundant.

Regarding their distribution, I would say that on one occasion, during the summer of 1906, Mr. Philip Buttrick, my brother, and myself observed the Starling at Stonington, Conn. Stonington is fifteen miles east of New London.

I think that nearly all Starlings raise at least two broods each year. I know of two pairs both of which have raised two broods. One of these pairs commenced the construction of their nest on April 3, and the second

brood flew July 25. I think that six is the ordinary number of young.

While the young are being raised the old birds keep very quiet. They usually go to a considerable distance for food, and they make their trips to and from the nest with great regularity. They obtain their food on lawns or, if there is one convenient, from a cow pasture. In the winter I have often seen them eat decayed apples.

About the middle of July the first flocks of Starlings appear. These flocks, I think, are largely composed of young birds of the first brood, as a large part of the old birds are still occupied with family affairs. During the fall and winter the Starlings gather in flocks.—CLIFFORD H. PANGBURN.

The Sterling at Wethersfield, Conn.

In the spring of 1906, in Wethersfield, Conn., where I reside, I noticed a strange, dark-colored bird, with straws in its bill, flying toward an old tree with a hole in it where a branch had been sawed off. This bird was entirely new to me and for a long time I did not have a chance to observe it again. However, the following winter a flock of five or more of these birds stayed with us all through the winter months. I finally decided that without a doubt they were English Starlings; probably the first observed in this section of the state.

It is evident that at least one brood was raised, and in all probability more broods will be raised, as I observed the parent birds flying across my yard many times during the past summer and have been very much interested in their strange calls.—ALBERT MORGAN.

The Starling at Stonington and New Haven

In reply to the request for information concerning the English Starling, made in the last issue of BIRD-LORE, I can say that the Starling has reached New London and beyond. In July, 1906, during a three-weeks' stay at Stonington, Conn., I saw this bird twice. The first time on July 9, at a short distance outside the town; the next day in the

town itself. This time I was accompanied by Mr. D. B. Pangburn, a well-known New Haven bird student. On neither occasion was identification doubtful. Once, while passing though New London on the train, Mr. Pangburn and myself saw a Starling sitting on a telegraph wire in the railroad yards there.

I am inclined to think that the Starling is not numerous east of New Haven. At Westbrook, Conn., near the mouth of the Connecticut river, it is practically unknown. Miss B. A. Moore, a bird student who has had field experience with the bird, says that it is some years since a Starling has been seen in the town, and she doubts if there is a pair there now.

This bird was first reported from New Haven by Dr. L. B. Bishop. He discovered it on December 3, 1900, as reported in 'The Auk' (Vol. XVIII, 1901). By 1903 it had become common, and today it is, next to the English Sparrow, the most numerous and conspicuous bird in the city, and it is constantly on the increase. Starlings roost in most of the church towers, even those on the green, often in company with flocks of escaped domestic pigeons, with which they seem to get along peaceably.

I wish we could settle the question of the desirability of the Starlings by saying that they are a desirable addition to our avifauna in the cities, for there they do not come into contact with many native species, and they are certainly fully as interesting as the English Sparrow. It seems to me, however, that they seek the city largely as a place of protection from the elements, that only a small portion of their food supply is drawn from it, and that the great bulk of them nest outside of its borders.

During midday, few are seen in the city except when the ground is covered with snow. They are seldom seen on the ground or about the streets in the neighborhood of their roosts, with us. Toward dusk they appear near their roosting-places, flying from the direction of the surrounding country, singly and in flocks. At the same time of day I have stood on the hills outside the city and seen them flying toward it. At daybreak there is a reverse flight.

Near my home is a large elm tree which rises above the surrounding shade trees and has a very large, flat crown; near it is a church tower, used as a roosting-place. Late in the afternoon on winter days often as many as a hundred Starlings may be seen in this tree, altogether making a racket that may be heard several blocks. Yet I do not know of a pair breeding in the neighborhood.

These facts, together with the fact that during late summer, when few Starlings are to be found in the city, they are found in flocks on the marshes, convinces me that, economically, they must be considered with the Grackles and Red-wings, and not with the English Sparrow and a few other city dwellers, and that to arrive at an estimate of their desirability we must examine their food supply.

In Germany (see Baron Laffert in 'Forest and Stream' for March 30, 1907) they are regarded as economically valuable. It may be we shall find them a welcome addition to our avifauna.—P. L. BUTTRICK.

The Starling at New London, Conn.

The Starling has arrived in New London. On May 28, 1907, a friend came to me and wanted me to go up near her house to see a strange Blackbird. From her description I suspected it to be the Starling, which I had been looking for ever since it was reported from New Haven and Norwalk. Sure enough, it was the Starling, which I saw for the first time. There were not more than ten birds in all, and several of them were big young birds, still being fed by the old birds; so it looks as if they had come early enough for the nesting. This is their first appearance in New London, as far as I know, and I have never seen them except in that locality, so that I can not say so soon whether they are desirable or not.—FRANCES M. GRAVES.

The Starling on Staten Island, N. Y.

The early history of the Starling on Staten Island, N. Y., has already been recorded by Mr. W. P. Heineken in the 'Proceedings of the Natural Science Association of Staten Island' for February 12, 1898. The first

Starlings observed by Mr. Heineken, about twenty in number, settled in Livingston, Staten Island, in November, 1891. The following summer he found a nest in West New Brighton; and in the winter of 1892-3 the Starlings at Livingston numbered about forty. Thereafter they slowly increased; but even in 1898 Mr. Heineken knew of no others on the island than those at Livingston and West New Brighton.

Only three or four years ago, when Starlings were quite numerous throughout the northern and eastern portions of the island, they were rarely to be seen in the less populous districts. At the present time, however, they may be seen almost anywhere on the island, though they still seem to favor the vicinity of houses. During the early summer, while breeding, they are very inconspicuous, but in the autumn they wander about in large flocks.

I have never seen them attack any of our native birds, but their rapid increase is startling. I do not believe in introducing foreign birds, but, even now, I doubt if the Starling could be completely exterminated. It is a far wariier bird than the House Sparrow, and even that pest seems well able to survive the half-hearted dislike of the general public.—JAMES CHAPIN, *New Brighton, Staten Island, N. Y.*

The Starling at Orient, L. I.

Two Starlings have been observed here this spring. They were first seen on May 12, by Mr. Rufus W. Tuthill, an enthusiastic local ornithologist, who called my attention to them. They were seen almost daily through May, spending most of the time in a large cherry tree, containing an old Crow's nest, fifty yards from the highway and a trifle farther from the dwelling of Mr. Tuthill.

Orient is at the extreme end of Long Island on the north shore and one hundred miles from New York City.—ROY LATHAM.

The Starling at Morristown, N. J.

I believe that the Starling has never been seen in this locality until 1907. On March 20 I saw a flock of about twenty, and since that time until the last week in June saw one or more of them nearly every day. On June 9

I saw probably two hundred of them flying in small flocks toward some evergreens, evidently to roost, as it was near evening.

I have noticed a number of nesting-places, both in hollows in trees and under electric-light hoods.

No acts of aggression against other birds came under my notice; but one old orchard that has heretofore furnished nesting-sites for a number of Bluebirds was almost deserted by them this year, and the Starlings were in possession.—R. C. CASKEY.

The Starling at Englewood, N. J.

1. March 15, 1898, two were seen,
2. Tolerably common.
3. No.
4. They are noisy and unmusical, and, with their fondness for buildings, I think would soon become a nuisance. Moreover, when a flock takes possession of an old orchard or similar neighborhood, their rapid

increase makes it probable that Bluebirds, Wrens and other small birds would soon be driven out.

5. No.—ISABEL MCC. LEMMON.

The Starling at Plainfield, N. J.

The Starling was first noticed by me in the vicinity of Plainfield, N. J., on February 11, 1900, when I met with a flock of seven birds in Ash Swamp, Union county. Since that date they have steadily increased in numbers and are now generally distributed and common in the surrounding country.

Although the Starlings do not seem to openly annoy or drive away our native birds, there can be little doubt that their increase will have an unfavorable effect on several of our native birds that have similar nesting or feeding habits. For this reason, I would be glad to see them exterminated in this country, but greatly doubt the possibility of doing so.—W. DEW. MILLER.



BROWN THRASHER

Photographed by Henry R. Carey, Portsmouth, N. H.

Notes from Field and Study

Trapping English Sparrows

That I may not be considered heartless, let me first say that I am known as a lover of birds; but each year that adds to my acquaintance with the English Sparrows, brings my wrath against them nearer to the boiling-point.

If they only went about their own business, living their own lives, one could forgive their disagreeable, insistent noise, and even forgive the expense they entail by their depredations in the chicken-yard; but they seem to have only mean traits and, certainly, they are pleasing to neither eye nor ear.

When I hear people called tender-hearted who plead in favor of the English Sparrow, I cannot help feeling that they must live where there is a sad scarcity of our more attractive

birds. Not that I doubt their tenderness of heart, only it seems to me that they cannot have had opportunities to observe this Sparrow among communities of other birds. There may be exceptional individuals but, as a whole in my experience, the English Sparrows have really vicious natures; I know they drive away and harass other birds.

They, and of late the Starlings, have appropriated all the holes in the old apple trees, they promptly take possession of nearly every bird-box I make, or in the few cases where Bluebirds or Wrens have succeeded in starting a home, the Sparrows try to oust them; failing in this, they pester and harass them nearly to death: and this, even, when they have a home and family of their own.

From what I have seen, I believe I am justified in saying that the English Sparrows



ARTIFICIAL RUBBISH HEAP IN WHICH THE PHOTOGRAPHER WAS CONCEALED WHILE MAKING THE ACCOMPANYING PICTURES OF ENGLISH SPARROWS

Photographed by A. L. Princehorn

will neglect their young for long intervals many times a day, just to persecute other birds. I have seen them pull out nesting material from Wrens' boxes, the entrance to



which was so small that they could only get their heads in. I have seen them pull to pieces a Robin's nest only to let the material float off on the breeze. I have seen them enter Starlings' nests every time the Starlings left to get food for their young and remain only just long enough to escape detection; and the way they harass my Wrens inclines me to murderous thoughts. We are told that besides the birds of prey, Crows, Blue Jays, Grackles and even Catbirds become cannibals at times and eat little nestlings of other birds, but English Sparrows have been known to kill them and just drop them to the ground in what looks like pure wanton cruelty.

All told, the English Sparrow is a menace in too many ways to deserve considering his pro-

tection. They are dirty, noisy, quarrelsome, meddlesome and cruel. To be perfectly fair, I will say that for a couple of weeks in the spring they no doubt are a benefit to my elm trees for they eat the little green worm that attacks the leaves; but I am very confident that were the Sparrows absent or more scarce my trees would be quite as well cared for by Warblers and Vireos,—birds that I see fewer of every year. It is the same with Song Sparrows and Bluebirds, both of which I used to have in large numbers. I fear we have got to choose between having English Sparrows with perhaps a few Robins and Grackles on the one hand and having all the other birds indigenous to the locality on the other; and as this latter choice means having perhaps fifty different varieties nesting within a stone's

throw, and all of them valuable because of the good they do, it has my vote. This means that I must rid the place of the Sparrows as far as possible. I dislike having them shot, fearing some might escape instant death and get away to die slowly; so I was glad to learn of a way to trap them. The knowledge came to me by mere accident but the method seemed to work, and I give it here below.

Get some of the very large wire rat-traps, the kind that have the funnel-shaped entrance the small end of the funnel pointed inward. Sprinkle on the floor of the trap some grain or crumbs or any suitable bird-food and a little more on the ground leading to the trap. Place it where the birds will see it and if you have the luck my stable-boy had you will



have caught fifteen or twenty Sparrows in as many minutes; then they may be drowned.

It seems incredible that they will enter the trap, but I had the evidence of my own eyes and I mean to try this method late in the fall and through the coming winter; for, of course, it should be done only after the fall and before the spring migrations. A very few years of persistent work should result in bringing back many birds whose gay colors or sweet song are sadly missed or rarely seen or heard—MRS. PAUL R. BONNER, *Stamford, Conn.*

A Plea for the Sparrow

In the April number of *BIRD-LORE* I read an article condemning the much-maligned English Sparrow, stating that it drove off the Robins and other song-birds. This statement, often made, is so contrary to my own observations that I feel obliged, in justice to the Sparrows, to give my experience. Around our old home there were many trees, with a lawn in front, where the birds daily collected. In the vines covering the stone walls of the church and parish house adjoining, the Sparrows built their nests, while the others built theirs around the piazza or in trees nearby.

One morning, while in the library, I heard a frightful signal of distress from a Robin, followed instantly by a prolonged noisy chattering from the Sparrows. Hurrying out to learn the cause and to protect the birds if necessary, I saw a Robin perched on top of the parish house chimney, trailing his wings and giving a shrill cry of distress. The frightened Sparrows had flown from their nests, and settled on a beech tree in front of the house. In a few minutes a Sparrow Hawk

flew from the vines and settled on the cross of the church spire, preening his feathers, apparently oblivious to all the trouble he caused.



The Robin, however, still gave his call of alarm and the Sparrows chattered in angry protests in the tree. After a few minutes the Hawk flew away and the Robin gave him chase, joined by another bird, and soon all three were lost to sight. The Sparrows then returned to their nests and peace was restored.

Three times I think it was that the Robin warned the Sparrows of their enemy, and they always heeded his cry, leaving the vines and fleeing from them in distress to the tree on the lawn.

The Sparrows and Robins I have constantly feeding together, neither disturbing the other. Sometimes perhaps an impudent or quarrelsome fellow would jump toward a



Robin, but he would only move a short distance off and go on peacefully "grubbing."

The Sparrows' main food is so different from the worms the Robins eat that there is no reason why they should be enemies. A friend feeds the birds daily from her window, and both the Robins and Sparrows feed together on her roof. As to the farmers' objections, I find the Robins are the thieves of their cherries and strawberries; but, after all, we have plenty of our garden fruits to spare the birds their gleanings.

Instead of seeing fewer song-birds, for the last two summers, there have been more.



The Robins have returned each spring very fat and tame.

There are many trees and gardens where I am now living in Germantown, Philadelphia, and this summer before leaving, there were many beautiful birds settled for their summer abode in the trees around. The Sparrows, too, were many, but they settled their families in the vines around the house, or back of the shutters, which were not often closed. The Sparrows gleaned much of their food from the streets, while the Robins, Blackbirds and many others fed in the gardens or lawns around.

I plead for the Sparrows who stay with us all winter, through cold and ice. They are always cheery and so grateful if you cast them even a crumb which falls from your table. So trustful and sure you will not forget them, while they wait patiently in the cold, huddled together, until you have eaten your warm breakfast, only softly chirping their

knock at your front or kitchen door.—M. ELOISE RUMNEY, *Germantown, Philadelphia, Pa.*

English Sparrow Notes

In the May-June, 1905, number of BIRD-LORE (page 176), is a very interesting note "The English Sparrow as an Evictor," in which your correspondent intimates he would like to hear from the readers "who have really discouraged these pests," and experiences in the use of firearms for their extermination, "as to whether or not the shooting scared away any other birds."

In the spring of 1902, a pair of Bluebirds, after thorough inspection, began carrying building material to one of the apartments in the bird-house which is fastened to the top of the horse barn, to be immediately set upon, of course, by a pair of English Sparrows, and ousted after an unequal fight. Thereupon the lordly cock Sparrow settled himself before the disputed door and began his impudent yelping, to the evident chagrin of the crestfallen Bluebirds and the raising of my ire, for seizing my brother's 22-calibre Winchester repeater, I carefully concealed myself, fully determined to teach that Sparrow a lesson if possible, to give him one good scare at least. A few flying feathers was the only tangible result of the light report of the rifle, plus the sudden ceasing of the yelps. Returning the rifle to its accustomed place, I brought out the glasses and discovered the body of the braggart on the shelf where he had stood and fallen.

With considerable wonder as to whether or not the Bluebirds would take offense at the use of a gun in their nearby presence, I kept a keen lookout and was soon gratified to see the pair working their way slowly back to their rightful possessions,—alighting on the barn, on the weather-vane of the bird-house, and all the time warbling to each other in their soft, pretty voices. Finally the male became bolder and flew down to the shelf on which lay his dead enemy, eyeing the body askance, hopped nearer, and finally shoved the body over the edge where it fell to the ground below and I picked it up, still warm.

Then the Bluebirds engaged in such a hallelujah as I never witnessed before and

only once since, the entire family of us watching the proceedings with much interest from the time the shot was fired. The birds sang and warbled, made ecstatic little gyrations in the air and hopped around in the grass not fifteen feet from the door where we were watching them, warbling over and over again their soft notes, the beautiful blue of their plumage fairly scintillating in the sun. The next day both birds—I suppose the same pair—were carrying materials to the bird-house.

In a day or two another pair of Sparrows drove away the Bluebirds with exactly the same result as happened to cock number one, and with exactly the same happy evolutions of Bluebirds, even to the male pushing or knocking the dead Sparrow over the edge to the earth below. This time the Bluebirds were left in peace and happily reared their brood in the bird-house.

This year a pair of Bluebirds nested early in the same bird-house; Chipping Sparrows in a large gooseberry bush not fifteen feet from the back of the house, and Robins under an outside stairway of the shop. These nests, aside from the Bluebirds, were inspected daily and the Chippy's was photographed once. About this time a cloud of English Sparrows settled down and, as usual, my brother began shooting them with his .22 rifle. I have repeatedly watched these nests by turns as he aimed, and have never seen a bird fly therefrom at the light report of the rifle. Both the Bluebirds and Chipping Sparrows are now nesting for the second time on or near the first sites.

This is only one or two years' experience out of seven or eight, during which time my brother and self have used the 22-caliber (never a shot-gun) effectively and effectually until either of us appearing anywhere in sight has been the signal for a general flight of Sparrows, they finally leaving for good and all for months at a time. Meanwhile all the other birds are confiding and fearless, and abound in great numbers around the house.

—LELIA E. HONSINGER, *St. Albans, Vt.*

English Sparrow Notes

In the May-June, 1905, issue of BIRD-LORE, Mr. F. M. Bennet's account of his

English Sparrow troubles is of more than ordinary interest to me, for my own experiences with this pest have been strangely similar. His description of the actions of these Sparrows toward the "respectable" birds illustrates splendidly the way my English Sparrows have done. I, too, have bird-boxes, and my Bluebirds had a hard time indeed until I relieved them.

Perhaps a brief account of my experiences will be welcomed by other bird-lovers, whose bird-boxes are infested with these pests. My plan for exterminating the English Sparrows is simple, but is better than it sounds. I simply shoot from the house, through a window slightly raised, every English Sparrow that comes to a bird-box. As I do not thrust the muzzle out of the window, very little noise is heard outside and the birds are not disturbed,—except, of course, the stricken Sparrow. I use a 38-caliber auxiliary barrel inside of my shot-gun, the shells being charged with smokeless powder and dust-shot; but, of course, any rifle or gun with a similar charge would do.

Now, one might say that all bird-boxes cannot be reached from a window, and indeed I have several times shot Sparrows from outdoors from necessity. And I can say this truthfully: the bang of the rifle did not frighten my Bluebirds or Tree Swallows in the least. They even seemed to appreciate the service I was doing them. In one case, an English Sparrow expelled a Tree Swallow from one of the boxes, and sat uttering its disgusting notes at the door. The Swallow lit in a nearby tree. From outdoors I shot the English Sparrow, which fell to the ground. Almost immediately the Swallow, with a joyful twitter, was on the grass by the dead Sparrow, surveying it quizzically from all sides; then it entered its own home in peace. I give this incident more as a noteworthy happening in bird-life than as an illustration of "how Tree Swallows regard the bang of a gun," however; yet, as I said, my Bluebirds and Swallows seem to know my good intent towards them while, on the other hand, I now take pride in the fact that the English Sparrows in my yard have become as wild as Hawks, and fly at the mere rattling of a window-sash.

I certainly should not recommend Sparrow-shooting to readers of BIRD-LORE if my own experiments in doing so had not proved highly satisfactory as they have; for this year I have had the pleasure of recording, in my yard, more birds than ever before, and several *never* seen there before; while the nests, built all within twenty feet of the house, show that the birds trust in us for their protection. Let the following "nest-record" speak for itself:

One Song Sparrow's nest and four young, in shrubbery eight feet from our front steps; one Chippy's nest in front-piazza vine, just built; two Bluebirds' nests in boxes, one pair just raising second brood; one Yellow Warbler's nest with young in bush; one Tree Swallow's nest and eggs in box, five feet from ground and near our parlor window, and one Robin's nest and eggs on top of same box. And I have killed no less than a score of English Sparrows on these boxes since early spring! And my Swallows are so tame that I can stand within a yard of them without any uneasiness on their part.—RICHARD M. HUNT, *Winchester, Mass.*

An Attractive Visitor

On the ninth of May a friend gave me a female Blackburnian Warbler which had evidently been stunned in some way, as it was lying with closed eyes when found. When the exquisite little orange-throated creature came into my possession she had greatly improved and could fly about again. I brought her home with me and placed her in my room until after supper when I attempted to find some insects with which to try to tempt her appetite. Three circumstances greatly hindered my success in this laudable undertaking. In the first place, it was growing dusk. In the second place, the season was but little advanced and the evening cool, and in the third place, I am not related to the family Tyrannidae. However, I procured a few specimens and attempted to feed my little friend, but she refused to eat a mouthful. I picked up my orange stick and found that the mite's feet would close around it beautifully. After a little I walked carefully to my bureau and shut the sharpened end of the orange stick in one of the drawers. I left the room, and

when I returned later with the light I found the tiny traveler still on the stick with her head tucked carefully under her wing and resembling a dainty pompon, save for the almost imperceptible rising and falling of the little breast. Later she roused a little and I put out the light, fearing she would become frightened and fly about the room. A few



A VISITING BLACKBURNIAN WARBLER
Photographed from nature

moments later I lighted a match and found that my guest had again tucked the head under and was settled for the night. In the morning she was still sitting on her perch but later began to fly about the room. I placed a fly on the rubber tip of my fencing foil and slowly raised it toward her as she sat on a picture-frame, but she still scorned my advances. I climbed on a chair and placed a fly on the picture-frame and on her return she cocked her head and eyed it with interest. The next time she came I was overjoyed to see her snap up the little fly. I found a sunny

place in the garden where I was able to catch some flies, and a good part of my morning was spent in this humble occupation. The little stranger soon concluded that I served up a fairly acceptable class of delicatessen, and, waiving formality, sat upon my hand and ate flies by the wholesale. I put my face down close to the exquisite mite, but found her so apparently interested in my eyes that I had to keep them partly closed for fear of the sharp little beak. Perhaps she was fascinated by seeing the reflection of her dainty self. I introduced her to the dining-room bay-window, filled with house plants, and here she was indeed happy, for she hopped from plant to plant, picking up insects and larvæ by the dozen. She had many callers during her short stay with me, but seemed to care little how many people were about her. Early in the afternoon I caught the tiny morsel, placed her on a spray of alder and photographed her. But pictures are so inadequate to her coloring and grace that they seem almost sacrilegious. In the early afternoon I gave her her freedom, leaving her time to get her bearings before dark, and I may always think as I look upon one of these brightest gleams in our migrating throng, "perhaps it's my beautiful little friend."—MARY PIERSON ALLEN, *Hackettstown, N. J.*

The Skylark (*Alauda arvensis*) on Long Island

About mid-June, while passing a vacant field in Flatbush, Greater New York, my attention was arrested by the flight song of a Skylark. The bird was above this vacant lot and continued to rise and poise in the manner so described. It remained in the air for at least five minutes, singing continually, or until I walked some distance away. Then it descended in zigzag fashion to a point near the center of the field. Thinking it might have alighted near a nest, I carefully marked the spot and walked rapidly over to it. I flushed the bird at about the point I expected, but a systematic search failed to discover a nest or flush another bird. When the bird was flushed it again rose in song flight. Another bird was seen in a nearby field.

On August 30, 1907, I went to the same

place for the purpose of investigating the status of the Skylark in that locality. In the same field where the bird was found in June one was flushed, but it merely flew away much after the manner of a Horned Lark, no song was heard and no other bird was seen. I enquired about the bird at the office of a real estate dealer nearby and was referred to an intelligent ex-farmer living in the vicinity. This gentleman said that the bird was a regular but not abundant permanent resident, equally common in winter and summer; that about eight years before while farming in that section, he found a nest and four young, and he did not believe that the birds had increased in numbers since that time. He estimated that there were not more than thirty birds in a radius of a mile in that section. In two fields in front of his place he thinks that the birds now breed and says that in the early evenings they rise in flight song above these fields. Of course the song is heard only during a period covering the breeding season and a short time prior to and following it. During the rest of the year, the birds are comparatively silent and inconspicuous. For the failure to increase in numbers this gentleman could suggest no cause.—B. S. BOWDISH, *New York City.*

Horned Lark Breeding in Connecticut

In the July-August BIRD-LORE there is published an unsigned article on the Prairie-Horned Lark in Connecticut. As the writer, who is a friend of mine, is away from home and will not see this article until his return in a month or two, I take the liberty of replying to your request for his name. The writer is Mr. Albert W. Honywill, Jr. I was with Mr. Honywill for a time and also saw the Larks. On May 30, this year, my friend and I went with Dr. L. B. Bishop to Washington, Conn., and although we went over all the ground, were unable to find any Larks. Several people, who had become acquainted with the Larks in 1906, said that they had not seen any this year. However, we heard an account of a nest and young which was undoubtedly that of a Horned Lark.

We found the Bartramian Sandpiper on May 30.—C. A. PANGBURN.



WHITE-BREASTED NUTHATCH AND SUET. NOTE THE GRASP OF THE BIRD'S EXTENDED FOOT

A Friendly Nuthatch

Last winter I kept a lunch-counter for the birds just outside a window of my room. It was visited by several different species of

birds, but the most frequent patrons were the White-breasted Nuthatches. They ate everything from cracked corn to suet, but seemed particularly fond of walnut meats. I took advantage of this and, after the birds had become accustomed to my presence at the window, tried feeding them from my hand. One little fellow became much tamer than the rest and after a few days of training he hopped upon my hand and fed quite fearlessly. After eating a few pieces he invariably took one and flew to a nearby tree, where he hid it in a crevice in the bark.

Later in the winter, the Nuthatch hopped upon my arm, and even upon the top of my



WHITE-BREASTED NUTHATCH AT WINDOW FEEDING TRAY

head, and took food I had placed there. He found it great sport to come into my room and feed from piles of food on the window-sill, and also from my hand. One day he took another hop towards civilization,—he flew from the window-sill to my dresser and ate from a lump of suet I had placed there. After feeding a while, he gave an indignant glance at his image in the looking-glass, and flew out of the window with a piece of food in his bill. He even took food from a chair set a few feet from the window and, at the request to "look pleasant" in the form of a sharp whistle, posed for his picture several times. He apparently paid no attention to the glaring face of the camera only two feet away. My room was now being converted into a photographic studio, but all my customers came in through the window!

When out in the yard, the Nuthatch would

fly down and eat from the top of my head. He also would come down the tree trunk and feed from my hand. I took some pictures of him doing this, pressing the bulb with my other hand. (When I was feeding the Nuthatch, with nothing between me and the bird, I could not help but think of BIRD-LORE's motto, but must confess that I thought for the time being that "A bird in the *hand* is worth two in the *bush*.")

These little experiences which I had with the Nuthatch, go to show what can be done with a wild bird when its confidence is won. I won the confidence of Teddy (as we called him), and he knew that he would not be harmed or even frightened if he came near me, and therefore he came into my room and fed from my hand with very little fear. Teddy was a friend whom I shall never forget.—
EDWIN C. BROWN. *Minneapolis, Minn.*



A SELF-SUPPLYING LUNCH-COUNTER

Book News and Reviews

THE BIRDS OF IOWA. By RUDOLPH MARTIN ANDERSON, Proc. Davenport Academy Sciences, xi, 1906, pp. 125-388.

Familiarity with the literature of his subject, access to pertinent collections, the coöperation of other workers, and an extended personal field experience, combined with an evident grasp of his thesis, have enabled Mr. Anderson to produce an admirable treatise on Iowa birds.

An introduction of twenty pages contains sections entitled 'Scope,' 'Historical Work,' 'Relative Abundance,' 'Breeding,' 'Food,' 'Migration,' 'Range in Iowa,' 'Topography of Iowa,' 'Climate of Iowa,' 'Faunal Areas,' and 'Contributors.' We wish that there had also been included here some discussion of the changes which have occurred in the character of the Iowa ornithology incident to the tillage of prairies, drainage of sloughs, planting of trees and increase of population. In this connection, we may also suggest the desirability of placing in a separate list those species which have become extinct in Iowa.

Mr. Anderson is commendably conservative in admitting birds to his list of 353 species; capture within the state and satisfactory identification being the entrance conditions imposed.

The annotations under each species relate, in the main, to the bird's distribution, relative abundance and season of occurrence, liberal quotations from the earlier writers affording material for comparison with the notes of recent observers. There are also remarks on habits which, in the case of breeding species, often include much interesting biographical matter.—F. M. C.

CASSINIA. Proc. of the Delaware Valley Ornithological Club, x, 1906. 8vo. 76 pages, 2 plates.

There are evidently certain conditions in and about Philadelphia favorable to the development of ornithological endeavor. Whether Alexander Wilson was stimulated by them, or whether the 'Father of American Ornithology' created and willed them to his

scientific descendants in the valley of the Delaware, we do not pretend to say, but each year when Cassinia comes to us as a material evidence of the continued activity in organized bird study about Philadelphia, we wonder why such a well-directed interest cannot be aroused and maintained elsewhere.

Fifty observers, for example, sent in schedules covering the 1906 migration, and the editor, Mr. Stone, remarks of the work thus far done by the "migration corps" of the D. V. O. C.: "It is doubtful if such an accurate and comprehensive series of data has ever been collected over such a limited area anywhere in America . . ."

In addition to a report on the results of this coöperative migration work, and an abstract of the proceedings at the meetings of the Club during 1906, this volume contains papers on 'William Bartram,' by George Spencer Morris (with two plates); 'A Study of the Solitary Vireo,' by Cornelius Weygandt; 'Summer Birds of Western Pike County, Pennsylvania,' by Richard C. Harlow; 'The Concordville Robin and Grackle Roost,' by Samuel C. Palmer; 'A June Trip to Pocono Lake, Monroe County, Pennsylvania,' by John D. Carter; and 'Winter Bird-life in the Pocono Mountains, Pennsylvania,' by William L. Bailey.—F. M. C.

BIRDS OF LABRADOR. By CHARLES W. TOWNSEND, M.D., and GLOVER M. ALLEN, Proc. Boston Society Nat. Hist., Vol. 33, pp. 277-428, pl. 29.

A summer on the Labrador coast gave the authors of this paper an opportunity to become acquainted with the more significant characteristics of the avifauna of the region and, at the same time, gave them that interested and discriminating point of view which only personal experience creates. Hence, we have here, not alone, some exceptionally good biographical material based on original observation—and in passing we commend this paper to young ornithologists as an illustration of how much may be seen in a brief period if one is determined to make the best use of one's opportunities,—but a critical

resumé of all that has been previously published in regard to Labrador birds. The result is a copiously annotated list of 213 "authenticated," 2 "extinct," and 44 "doubtful and erroneous species."

Introductory sections on 'Topography,' 'Faunal Areas,' 'Migration,' 'Ornithological History—Ornithologists,' 'Bird and Egg Destruction,' supply much general information.

While the actual number of specimens collected was small, they proved to be of special value showing, among other things, that the Prairie Horned Lark has no status as a Labrador bird, *Otocoris alpestris alpestris* being apparently the only form of the group occurring in this region.

An unusual feature of this paper is a census of the approximate number of individuals of species of birds seen at stated localities.—F. M. C.

ALONG THE LABRADOR COAST. By CHARLES WENDELL TOWNSEND, M.D., with illustrations from Photographs and a Map, Boston, Dana Estes & Co., 1907. 12mo. xii + 289 pages. 40 half-tones, 1 map.

This book admirably supplements the paper on Labrador birds by its author and Glover M. Allen, reviewed above. It is the story of the summer cruise along the Labrador coast, during which was gathered the material on which the more technical paper is based. Each work has its place, and each appeals to its own audience, but in reading the two together one is impressed by the comparative absence of repetition and consequently realizes how much of the story of the expedition would have been left untold if the present work had remained unpublished.

Here we have a continuous narrative, in which with no effort at "fine writing," the Labrador coast and its inhabitants, human as well as avian, is brought very clearly before us. We wish there were more books of this kind, and if every traveling ornithologist could tell his story as simply and as pleasantly as Dr. Townsend relates his, our supply of readable and informing nature literature would be acceptably increased.—F. M. C.

The Ornithological Magazines

THE AUK.—In the 128 pages of the July number there is much to attract the general reader as well as other matters that will more particularly please the student of ornithology. The first instalment of an exhaustive local list of 'The Birds of Custer and Dawson Counties, Montana,' by Mr. E. S. Cameron, is finely illustrated by photographs of the country and is accompanied by two maps. The third instalment of Messrs. Beyer, Allison and Kopman's 'List of the Birds of Louisiana,' will be found on later pages. The Rev. P. B. Peabody writes pleasantly of his experiences with 'The Crossbills of Northeastern Wyoming,' where he found these nomadic birds nesting in mid-winter. A mop-stick proved a successful, though uncertain weapon for securing specimens of the birds. Fledglings and a nest were obtained. Mr. A. H. Clark gives us a glimpse of 'Characteristic Kamchatkan Birds;' Mr. J. T. Ferry has something to tell us about the winter birds of southern Illinois, and Mr. J. C. Wood writes about the autumn migration of Warblers near Detroit.

More technical articles are one by Mr. O. Bangs on birds of Costa Rica, one on a hybrid Humming-bird by Messrs. Bangs and J. E. Thayer, and one on a new *Agelaius* from Canada by Mr. H. C. Oberholser. Mr. Bangs describes two new species and five new races, but what comes nearer home to most readers of BIRD-LORE is the separation by Mr. Oberholser of the Red-winged Blackbird of the Canadian Northwest under the subspecific name of *arctolegus*. This is still another of the millimeter races, differing from its nearest ally, according to its describer's own figures, about 5 per cent in dimensions and nothing in plumage. Inasmuch as the Red-wing is already split into so many races that even experts do not agree as to what name to call a given specimen, this latest 'split' in a much worked-over—if not over-worked—species is not a welcome guest.

An obituary notice of Professor Alfred Newton marks the passing of an old-time ornithologist of note.—J. D., Jr.

THE CONDOR.—In the leading article of the July number of 'The Condor,' entitled 'The Grebes of Southern Oregon,' Finley gives an interesting account of the habits of the Western and American Eared Grebes and calls attention to the ruthless manner in which the birds have been destroyed for the millinery trade. Five illustrations from photographs by Bohlman show the old birds, the young and the nests. One figure shows clearly the curious habit the old birds have of carrying the chicks on their backs. 'Nesting Habits of *Phainopepla nitens*,' by Harriet Williams Myers, contains the results of some observations of these interesting birds made near Garvanza, in the vicinity of Los Angeles.

A brief, but important, illustrated article on 'The Thick-billed Parrot in Arizona' is contributed by Austin Paul Smith, who states that a flock of Parrots estimated at 700 or 1,000 was observed in the Chiricahua Mountains in August, 1904. He expresses the opinion that the birds are "not nearly as casual as supposed." 'Summer Birds of a Prairie Lake,' by G. Willet, is an account of collecting experiences in northeastern Montana in 1903. Under the title 'Measuring a Condor,' M. French Gilman gives notes on several California Condors seen near Werner Ranch and San Jacinto Peak in San Diego county, and near Bear Valley in San Bernardino county. The specimen measured had an expanse of nine feet, ten and one-half inches. Finley adds some brief 'English Sparrow Notes' illustrated by a photograph of a Sparrow's nest built inside of a hornet's nest. Among the short notes 'From Field and Study,' Torrey records the Vermilion Flycatchers at Santa Barbara, California; Beck adds several species to the list of birds known from Clipperton and Cocos Islands; Finley records the Magnolia Warbler from Salem, Oregon; and Felger the Prothonotary Warbler from Colorado.

The 'Directory of the Cooper Ornithological Club,' published in this number, shows that the Club has two honorary and 229 active members, and has lost seventeen members by death.—T. S. P.

THE WILSON BULLETIN.—Four numbers of the 'Wilson Bulletin' have appeared since

the journal was last noticed in these columns. They are filled with the usual annotated lists and popular sketches of bird-life.

The September, 1906, number contains a short sketch of the birds of Clayton county, Iowa, by A. R. Sherman, an annotated list of common birds of Whittier, California, by E. Craigmile, based on six months' observation—far too short a time to warrant publication for a region so well known—'A Purple Martin Roost,' by P. A. Taverner; 'A Glimpse of the Birds of Second Lake, Coos county, N. H.,' by C. H. Rogers; 'August Days with the Birds,' by L. Jones,—locality not mentioned—and 'Two Days with Beach Birds and Botanists' at Stone Harbor, N. J., by C. J. Hunt.

In the December number J. Henderson describes the birds observed on a trip through northeastern Colorado; the editor presents an anonymous list of 'Birds of Cleveland, Ohio,' which had perhaps better have been preserved in manuscript until something could be learned of the author; F. H. Hall writes of 'Some Western Adirondack Birds,' and L. Jones on 'Some Migration Records in Cedar Point, Erie County, Ohio.'

In the March, 1907, number, W. F. Henninger writes at length on the 'Paradise of Germany;' G. C. Fisher describes the 'Nesting of Bald Eagles at Lewistown, Ohio;' and C. J. Hunt gives a list of 'August Birds of Lake Sebago, Maine,' with a description of the locality. A list of 'Birds of Summit, N. J.,' by the late L. K. Holmes, is published and *Larus franklinii* and *Ammodramus lecontei* are added to the Ohio list.

The issue for June contains the first instalment of an important paper on 'Birds of Point Pelée,' by P. A. Taverner and B. H. Swales, which promises to be one of our best contributions to the bird-life of the Great Lakes. O. Widmann discusses 'Spring Migration Anomalies in 1907,' a subject which we trust may receive further attention from observers elsewhere. Other papers are 'Notes on the Broad-winged Hawk,' by R. W. Shufeldt; 'Our Bird Bath,' by C. F. Schautz; 'Ruby-throats,' by C. J. Hunt, and 'Walter J. Hoxie,' by F. L. Burns.

Numerous short notes appear as usual in each number of the Bulletin.—W. S.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

THE annual meeting of the National Association of Audubon Societies, to be held at the American Museum of Natural History on October 29, should be well attended. The Association's increased income has permitted it greatly to broaden its field of activities, and with its allied State Societies, it is now not alone the most effective organized protector of wild life, but through its work in disseminating good, sound, popular ornithological literature to the schools, it exerts a profound influence on the future of ornithology in this country. Numerous possibilities for development present themselves and their discussion at the annual meeting is greatly to be desired.

COMPARISON of conditions prevailing in this country with those which exist in Italy, as they are revealed by Professor Herrick's paper, concluded in this number of BIRD-LORE, should give all Americans cause for special thanksgiving. In other phases of ornithology—the study of migration, of geographical distribution, and of climatic variation—American ornithologists, as is well known, are more advantageously situated than their brethren of the continents, where smaller political divisions do not beget the coöperation and unity of interests which are found in this country.

Uniformity of law is one of the fundamentals of adequate bird protection. While with us the passage of the Model Law, by most of the states in the Union, has gone far toward making the laws effective in their primary intent,

the ideal condition will not be reached until we have a Federal law such as Mr. George Shiras, 3d, has proposed, placing the framing and enforcement of all laws relating to migratory birds in the hands of the Federal government.

In Europe the attitude of Italy well-nigh renders the whole case hopeless. At the International Convention for the Protection of Birds, held in Paris in 1902, Italy's delegate was instructed to sign no "binding schedule," and her refusal to coöperate with the other countries represented was emphasized by her further statement that "no agreement refused by Italy could be of any advantage to Hungary or Austria." Not only is the enormous destruction of bird-life in Italy to be deplored, but the fact that Italy is a migratory highway over which the birds of a large part of Europe travel in their journeys to and from Africa discourages attempts to protect these birds in their more northern summer homes.

It is unfortunate that the attempt to form an ornithological section of the International Zoölogical Congress held in Boston, August 19-24, 1907, was undertaken at too late a date to permit of proper organization, for that there was no lack of interest in the subject, was evinced by the number of papers on birds presented before the Congress, as will be seen by the following titles: 'A Comparative Study of Birds with Respect to Intelligence and Imitation,' J. P. Porter; 'The Influence of Domestication on the Behavior of the Ostrich,' J. E. Duerden; 'Organization of the Gull Community: A Study of the Communal Life of Birds,' F. H. Herrick; 'A Statistical Study of the Local Distribution and Ecology of Birds,' S. A. Forbes; 'Geographic Variation in Birds, with Special Reference to Humidity,' C. W. Beebe; 'Remarks on the Geographical Origin of North American Birds,' Frank M. Chapman.

IN republishing several of the photographs illustrating Schilling's 'Flashlights from the Jungle,' the National Geographic Magazine calls attention to the fact that the flashlight apparatus employed by Schilling was invented by George Shiras, 3rd, the pioneer in the flashlight photography of wild animals.

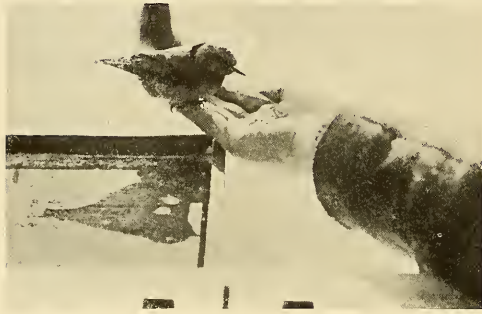
The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

OCTOBER AND PREPARATIONS FOR WINTER



If you have not already settled the location for your lunch-counter, and begun to spread it with tempting tid-bits, you should do so at once.

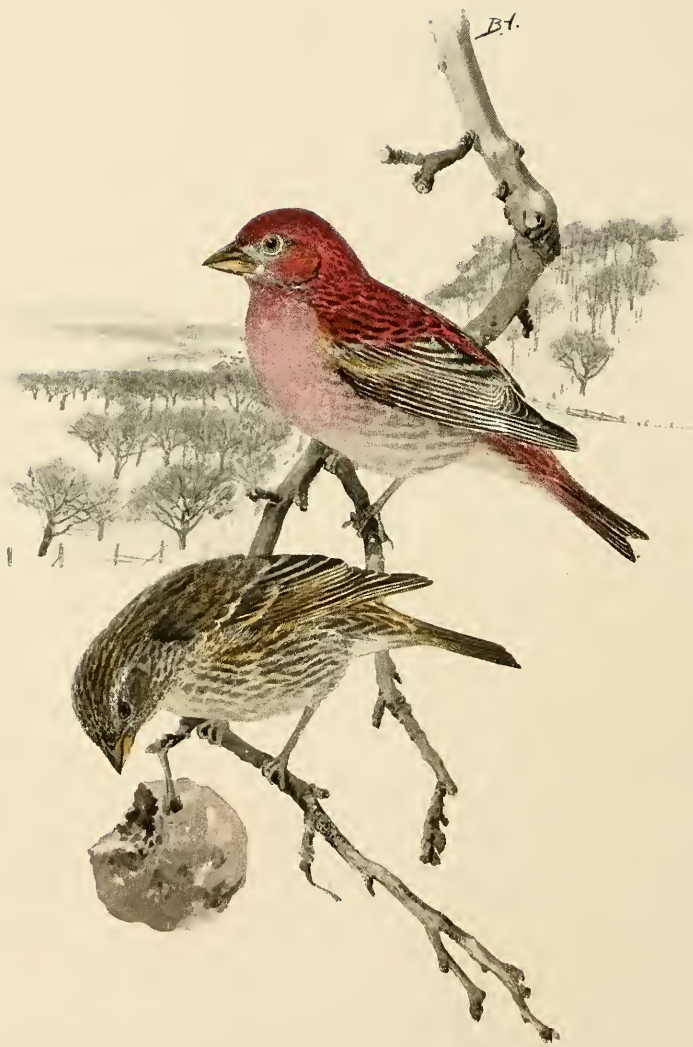
Whatever form this table may take, either a partly roofed shelf surrounding a tree, a bracket against the side of the house, or merely an extension to the window sill, it should be made of

weathered wood and be wholly free from the taint of new paint.

Birds love the old and are distrustful of the new and glittering. It is a good plan, when time serves, to make a collection of old boards or mossy shingles, that are so often discarded when old buildings are repaired, and keep them ready; for there is nothing better than such material either for birds' houses or feeding-boxes.

Also, do not wait until the natural food-supply is cut off, and most of the birds have gone, before you offer them daily rations; for the fact that food lies close at hand may win for you many winter friends that otherwise would pass on. Hungry birds will eat many things that do not belong strictly to bird diet, but two articles I have found will suffice for all species, and gray squirrels as well, if you have any in the neighborhood,—suet in good-sized lumps that will not be torn to shreds too soon for the Woodpeckers and all other tree-trunk climbing birds, and any one of the various dog-biscuits broken into pieces of various sizes, ranging from that of a chestnut, which Jays and Nuthatches love to pound up to suit their taste, to crumbs that tempt the Junco, Tree Sparrow, Purple Finch, Snowflake, and even the Robin and Bluebird. As for the Chickadee, bless his brave little heart! he will take both meat and bread and nod you thanks between courses.

The suet may remain on the counter until it is consumed, but be careful to put only enough of the biscuit out each morning for the day's use, as, if it becomes water-soaked and lacks crispness, it not only loses its seed-like quality and ceases to be tempting, but is unwholesome for birds accustomed to digest either dry seeds or juicy fruits but not pulaceous masses.—M. O. W.



PURPLE FINCH.

(UPPER FIGURE, MALE; LOWER FIGURE, FEMALE.)

Order—PASSERES.
Genus—CARPODACUS.

Family—FRINGILLIDÆ.
Species—PURPUREA.

THE PURPLE FINCH

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 28

The family of Sparrows and Finches, like that of the Warblers, Blackbirds and Orioles, offers such an infinite variety of species and disports so many contradictory fashions in the cut of beaks and tinting of plumage that when we have even a bowing acquaintance with it we feel that we have really entered the realm of bird knowledge.

In addition to its rarity, family *Fringillidae* is the largest of all bird families, numbering some five hundred and fifty species, that inhabit all parts of the world except Australia.

The one point that binds them together which the untrained may discover is the stout bill, conical in shape with great power for seed-crushing. For, first and last, all of the tribe are seed-eaters, and though in the nesting season much animal food is eaten by adults as well as fed to the young, and tree-buds and fruits are also relished, the tribe of Finches and Sparrows can live well upon seeds—seeds of weeds, the seeds concealed between the scales of pine-cones and the pulp-enveloped seeds of wild fruits that are called berries.

This ability to pick a living at any season of the year that the seeded weeds of waste fields and roadsides are uncovered makes what are called “permanent residents” of many species of Sparrows, and causes them, when they migrate, to still keep to a more restricted circle than their insect-eating brethren. Also, alas! this seed-eating quality, coupled with beauty of plumage and voice, has made them favorite cage-birds the world over. Happily, freedom has now come to them in this country, together with all our birds, and as far as the law may protect them they are safe, though the latest reports say that small consignments of Mocking-birds and Cardinals are still smuggled over seas by way of Hamburg.

Run over the list of prominent members of the *Fringillidae*, or family of Finches and Sparrows. Call them by memory if you can; if not, take a book and look them up.

The Sparrows are clad in shades of brown more or less streaked, and their dull colors protect them amid the grasses in which they feed and lodge. The birds of brighter plumage are obliged to look out for themselves, as it were, and keep nearer the sky, where their colors are lost in the blaze of light.

First to be remembered are the birds that wear more or less red,—the Cardinal, the Rose-breasted Grosbeak, the Redpolls, Crossbills, the Pine Grosbeak and the Purple Finch (who is no more purple than he is blue or yellow).

Colors of
Finches

Then come three birds who would seem original and striking in any family—the Indigo Bunting, the southern Blue Grosbeak and the beautiful Painted Bunting or Nonpareil, gay in blue, gold, red and green plumes.

Red and blue—then yellow must follow as a natural sequence, to complete the primary colors. It is a fact, in the floral kingdom, that the three primary colors never exist naturally without artificial hybridization in one family; thus, there are red and yellow roses, but no blue; red and blue verbenas, but no yellow, and so on.

In the Sparrow family, however, we have the three primary colors in all their purity,—the American Goldfinch clad in pure gold and the Dickcissel of the yellow breast, together with the yellow wing and tail marks of the Pine Siskin, supplying the third color. The Towhee Bunting stands alone, a blending of brilliant black above, white below, with chestnut sides and red eyes. The Chippy, Song and Field Sparrows are typical of the color-protective family type. The white outer tail quills are an index to the Vesper Sparrow; the same white quills and a white vest name the Slate-colored Junco. The White-throated Sparrow has his name plainly printed under his beak, and the White-crowned Sparrow writes his in his white head-stripe, while the rusty brown Fox Sparrow is known both by size and color.

The Purple Finch, which, as I have said, is not purple, but, when in full plumage, washed with a rich raspberry-red, deepest on breast, crown and rump, light breast, brownish back, wings and tail, is one of the notable members of the family. Its bill is heavy and round, approaching in size those of the Grosbeaks, while in body it ranks with Song and House Sparrows. Besides having a heavy bill that suggests the Grosbeak, it has a way of bristling the feathers of its crown that sometimes gives it the aggressive mien of the Cardinal; while its clinking call-note and way of flying in scattered flocks, and the fact that it is with us in winter, cause it to be sometimes mistaken in the distance for one of the Crossbills.

One would think that, with its rich coloring and the fact that it is a winter resident in many parts of its range, this finch would be a well-known bird; yet many people who have a fair knowledge of our common birds do not seem to know it. Perhaps this is because the females and immature birds, wearing gray and brown stripes, look so very much like their Sparrow kin that the rosy-vested bird that sings in the trees, where his colors cannot be seen unless you are directly under him, escapes unnoticed. The change of the young male Finch from his northern plain garb to the full crimson costume is interesting as it is deliberate, taking two seasons, the rosy flush not appearing until the end of the second year.

The range of the Purple, or Crimson Finch, as I wish that the **His Range** Wise Men would agree to call him, is eastern North America. The nesting season is spent from Minnesota and the Middle States northward, and the winter from the borders of the northern States southward to the Gulf. Its choice of a nesting location is very wide, for, like the Catbird, it is equally at home in unfrequented and brushy woodlands, and on the borders of home gardens where people are constantly present.

In spite of his unique plumage, it is for his song that this bird has won renown, and it is by his song that he is most readily to be identified. To hear this in its perfection, one must listen for it in May and June; for this Finch

His Song has not the enduring vocal qualities that endear his cousin, the Song Sparrow, and give us the perpetual hope that we may hear his voice in every month of the year,—a hope that is usually fulfilled. The Finches that have wintered with us begin to warble a little in late March, and the same partial song may be heard in October, after the molt; but the song that suddenly bursts into exuberance, rendering him one of our most conspicuous songsters and recalling many notes of the English Chaffinch, belongs to the nesting season.

It is almost impossible to render the song of a bird in syllables so that it appeals to any number of people; for, as bird music is phrased according to the natural, not the artificial key that we associate with annotation, its translation is a matter of mood, temperament and accord between imagination and ear. To me, when the voice of the Crimson Finch bursts forth in sudden joyousness, it cries, "List to me, list to me, hear me, and I'll tell you,—you, you!" There must be, however, some similarity between these syllables and the song, because more than once, on endeavoring to name a curiously described bird that I suspected might be this Finch, the rapid whispering of these words has completed the clue, by the inquirers exclaiming—"Yes, that is the way the song went." Yet, do the best we can to suggest rhythm of the song, the music of it belongs to the woods and fields, the sky and sun, from which we may not separate it. Forbush says of it: "The song of the male is a sudden, joyous burst of melody, vigorous, but clear and pure, to which no mere words can do justice. When, filled with ecstasy, he mounts in air and hangs with fluttering wings above the tree where sits the one who holds his affections, his efforts far transcend his ordinary tones, and a continuous melody flows forth, until, exhausted with his vocal effort, he sinks to the level of his spouse in the tree-top."

These Finches travel at times in flocks and are at all times somewhat gregarious, and this trait has made them an easy prey for bird-catchers, and Mr. Forbush tells us that, "If a bird of this species is confined in a trap-cage in spring and exposed in a conspicuous place, most of the Purple Finches in the neighborhood may be trapped. The greater part of the so-called 'Linnets' in many localities have been taken in this way, despite the law and its officers, who are on the lookout for the law-breakers. The birds have been sold in the bird stores or sent to Europe as red or gray Linnets. This may account for a local scarcity of this Finch in some places where it was formerly common."

The Purple Finch, though, like many others, it hunts for succulent food, apple and cherry blossoms in the spring, has a decided

His Food economic value; for, the season through, it feeds upon orchard and woodland caterpillars, lice, cankerworms, and when these are out of date it consumes quantities of the seeds of injurious plants, including the noxious ragweed.

Wilson (1829) devotes some space to a description of his experience with these Finches as caged birds, showing that they have been captives these many years: "The Purple Finches fly at a considerable height in the air, and their note is a single chink, like that of the rice bird. They possess great boldness and spirit and, when caught, bite violently and hang by the bill from your hand, striking with great fury; but they are soon reconciled to confinement and in a day or two are quite at home. I kept a pair of these birds upward of nine months, to observe their manners. Both are now as familiar as if brought up by hand from the nest, and seem to prefer hemp seed and cherry blossoms to all other food. Both male and female, though not crested, are almost constantly in the habit of erecting the feathers of their crown. . . . They are a hardy and vigorous bird. . . . When these birds are taken in their crimson dress, and kept in a cage until they molt their feathers, they uniformly change their appearance and sometimes never after regain their red color. . . . They are also subject, if well fed, to become so fat as literally to die of corpulency, being at these times subject to something resembling apoplexy, from which they sometimes recover in a few minutes, but oftener expire in the same space of time.

The moral of this being that even a hardy Finch, when caged, becomes abnormal and should be granted the same liberty as the Cardinal, Mockler, and all the rest. Wilson says that the pair he caged were reconciled to confinement in a day or two. This I am never prepared to believe about any bird born wild and captured after maturity. Cowed, or caged into submission, they may be, but *reconciled*, never!

Questions for Teachers and Students

What family of birds has the greatest number of species? What is the relation between the colors of Finches and Sparrows and their haunts? What is the principal external character of Finches? What is their chief food? Do they migrate as far as birds which live mainly on insects? How many of our commoner winter birds belong to the Sparrow family?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

Notice of Annual Meeting of the National Association of Audubon Societies

The annual meeting of the members of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, for the election of four directors to take the places of the following directors, viz.: Frank M. Chapman, Witmer Stone, Hermon Bumpus and William Brewster, class of 1907, whose terms of office will then expire, and of George Panitz and Alphonso Hodgman, class of 1907, who have resigned, and for the transaction of such other business as may properly come before the meeting, will be held at the American Museum of Natural History, Columbus avenue and 77th street, in the Borough of Manhattan and City of New York, on the 29th day of October, 1907, at 2 o'clock.—T. GILBERT PEARSON, *Sec'y.*

Wood Duck and Woodcock Summer Shooting Condemned

Wood Ducks bred here (Long Island, N. Y.) this season and all summer long I have seen scattered birds, and now small bunches are beginning to appear in the ponds close by. I saw one nice bunch of seven, a few mornings ago, in a pond right close to several houses.

For the past two months—ever since I first looked for them—I have been finding Woodcock, and I believe I have pretty well proven the theory that these birds can regularly be found within a few feet of where you first locate them, for I have found them every time I cared to look for them. If summer shooting is allowed to continue, you can readily see how this local habit of the Woodcock will seal its doom. To this very habit I attribute its present scarcity in sections where it was formerly abundant, for gunners have

killed every bird they could find, until none was left to return another season. In Nassau and Queens counties I know great stretches of fine Woodcock grounds where today the bird is rarely seen in the summer months, while further east, in Suffolk county, where the bird is not much disturbed, in the summer months, it can still be found in goodly numbers.

To illustrate how destructive summer shooting is, I have heard of one man who killed nine birds on the Fourth of July, this year. This man is not a good shot, but he takes pride in the fact that not a bird escaped him. These birds were killed along a small drain, in one piece of woods, and he probably killed the old and young of two entire broods. Next season this party will probably wonder why there are no birds in this particular patch of woods. A few such men as the above will destroy many birds in a season and in a short while will leave the section of country they hunt without a bird.

If the open season did not begin until the first of October, or even until the 15th of September, it would be impossible to kill off all the birds found; for by that time they would have obtained their full growth and would be better able to take care of themselves. Every gunner knows that after you put up a fall Woodcock a couple of times without getting it, it is a hard matter to again locate it. In this connection, I might state that, on a trip last fall, a friend found about thirty-five Woodcock, only sixteen of which were killed. He could, of course, have killed a few more of these birds, but does not believe in hunting too close. Many of these birds would not lie for the dogs, and flushed without giving a shot, showing that in the fall they are well able to take care of themselves.—JOHN H. HENDRICKSON, *Jamaica, L. I.*

The New Bird Reservations in the Gulf of Mexico

The National Association of Audubon Societies, in continuing the plan originated by the Thayer Fund of making a thorough bird survey of the coasts of the United States, sent its lecturer and organizer, Mr. Henry H. Kopman, who is a well-equipped ornithologist, early in May last to explore the coast of Louisiana from the Texas line to the mouth of the Mississippi. The trip was made in a small schooner, 15 tons, the "Sea Bird," under command of Captain Couvillier with mate Colson. The results obtained by Mr. Kopman were complete and satisfactory and furnished the desired information on which to base a request for two new reservations which were made by official orders of President Roosevelt in August, as reproduced below.

The report of Mr. Kopman contains so much valuable ornithological material that it is given in full for the benefit of the bird students of the country, and also because it cannot fail to interest the members of the Association who, besides being deeply concerned in the preservation of the birds, furnish the funds with which to carry on the work.—W. D.

Executive Order

It is hereby ordered that all small islets, commonly called mud lumps, in or near the mouths of the Mississippi river, Louisiana, located within the area segregated and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture, as a preserve and breeding ground for native birds. This reservation to be known as Tern Islands Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
August 8, 1907

Executive Order

It is hereby ordered that the Executive Order of July 9, 1855, creating the Light House Reservation, which embraces a small group of unsurveyed islets located in the Gulf of Mexico about three and one-half miles south of Marsh Island, Louisiana, and approximately in latitude 29° 26' north, longitude 91° 51' west from Greenwich, as appears upon United States Coast Survey Chart No. 200, be, and the same is hereby vacated and set aside; and it is also ordered that these islets, located within the area segregated and shown upon the diagram hereto attached and made a part of this Order, be, and they are hereby reserved and set apart for the use of the Department of Agriculture as a reserve and breeding ground for native birds. This reservation to be known as Shell Keys Reservation.

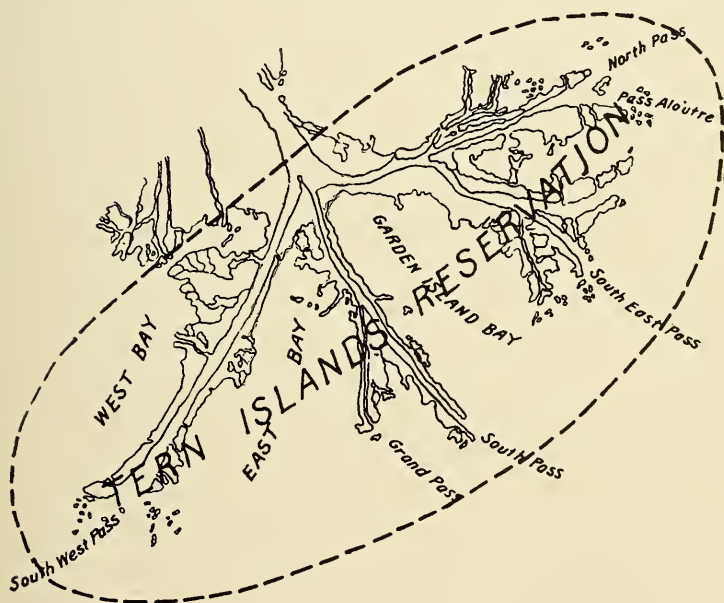
THEODORE ROOSEVELT

THE WHITE HOUSE,
August 17, 1907

TERN ISLANDS RESERVATION

For Protection of Native Birds
At Mouths of Mississippi River
LOUISIANA.

*Embracing all small islets within area segregated
by broken line shown hereon and designated
"Tern Islands Reservation"*



DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,

Richard A. Ballinger, Commissioner.

[DIAGRAM ATTACHED TO AND MADE A PART OF THE EXECUTIVE
ORDER DATED AUGUST 8, 1907.]

SHELL KEYS RESERVATION

For Protection of Native Birds

LOUISIANA.

*Embracing all small islets within area segregated
by broken line shown hereon and designated
"Shell Keys Reservation"*



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE

Richard A. Ballinger, Commissioner

[DIAGRAM ATTACHED TO AND MADE A PART OF THE EXECUTIVE
ORDER DATED AUGUST 17, 1907.]

Report of Exploration of Seabird Colonies

On the Coast of Louisiana West of the Mississippi River, Made in the Interests of the National Association of Audubon Societies, May 15, 1907, to June 21, 1907

By H. H. KOPMAN

In submitting a report of the conditions of sea-bird life observed during the cruise along the coast of Louisiana between the Sabine river and Pass a L'Outre, Mississippi river, from May 15 to June 21, 1907, I would first call attention to several general features of the situation now confronting an attempt to establish breeding reservations in the regions under consideration.

First. The birds of the territory visited showed a decided disposition to congregate during the nesting season within two comparatively small areas, one being the chain of outer islands from Isle Derniere to East Timbalier, and the other being the mud lumps off the mouths of the Mississippi; practically all the nesting colonies found were within these two areas.

While the fact just instanced would doubtless facilitate in the work of protection, it indicates that the birds of the western coast of Louisiana are not displaying at present their normal breeding vigor because of lack of confidence in their surroundings, due to recent as well as to previous persecution. Islands known to have been used formerly as breeding resorts were found deserted during the past season, or, if occupied, the birds showed no disposition to take up their nesting duties. While it was reasonable to suspect the presence of non-breeding birds at most of the islands, the proportion of these seemed unusually large.

In conclusion, as regards this particular subject, it is my belief that, after several years of careful warden supervision of the coast explored, the extent of the nesting territory would be greatly increased, and that islands now used only by feeding and resting birds during the present season would become regular nesting resorts.

Second. The most important single discoveries made were the colonies of Laughing Gulls, Black Skimmers, and Louisiana Herons on East Timbalier, and the Brown Pelicans on the mud lumps off Southwest Pass. Although the birds on East Timbalier have been greatly molested this year, they have not been altogether discouraged. In the case of the Pelicans on the 'mud lumps' at Southwest and other passes of the Mississippi, there seems to be little disposition in that neighborhood to molest the birds, and apparently full broods were raised. I was informed by the United States engineers in charge of the dredging operations at Southwest Pass, where the new concrete jetties are being constructed at a cost of several million dollars, that the mud lumps off the Passes are part of the territory under National control. These lumps appear, disappear, and reappear from time to time, but always within the same general areas. I saw none more than a mile from shore, and most of them are closely adjacent to the actual outlets of the river. Some of them have grown to an elevation of six or

eight feet above ordinary high tide and an extent of an acre or more. It is the opinion of an engineer with whom I conversed that all of these mud lumps might be set aside *en bloc* as a National Reservation. While all the lumps were not used as nesting-sites, any of them is apt to be so used. The lumps are supposed to originate from the action of gas and oil domes, but there is evidently a growth in their size from the ordinary course of sedimentation. There is little



CAPTAIN FRANK COUVILLIER AND WARNING NOTICE ON EAST TIMBALIER

vegetable growth on the lumps except of those weeds that come readily in Mississippi mud.

Third. With respect to patrolling possible reservations, Grand Isle seems the most generally convenient base of operations under present conditions. Lighthouses are in close proximity to the colonies at East Timbalier, Southwest Pass and Pass a L'Outre. The most inaccessible colonies are those on Isle Derniere and She'l Keys, off Marsh Island. The former of these might be in-

cluded on the beat from Grand Isle, but would be more conveniently included with Shell Keys on a distinct route, with Morgan City as headquarters.

Fourth. The clusters of islands in the shallower parts of the several bays between the Atchafalaya and Mississippi rivers, contrary to expectation, proved almost absolutely unproductive in the present connection. Aside from the fact that all or nearly all of these islands are infested with raccoons, muskrats and other small predaceous mammals, their growths are not especially suited to the nesting of sea-birds; rushes (*Juncus*), and a low shrub allied to *Rhizophora mangle* cover most of these islands. In a few cases, however, *Spartina* and a few other marsh grasses offer suitable nesting-sites for Laughing Gulls, Forster's Terns, and possibly one or two other species; yet only three small colonies of Forster's Terns were found on such islands. The proximity of fishing camps and the liability of molestation may be responsible for the absence of birds in the majority of such cases.

The innermost of the islands just referred to are in water so shallow that it was impossible to reach them with the Seabird, which cannot be safely handled in much less than four feet of water; and, while I am confident that almost entirely similar conditions prevail throughout these districts of clustered marsh islands, a very shallow-draft boat, working among the innermost of the islands, might discover a few additional colonies of Forster's Terns. The territory uncovered by the Seabird from the outside could easily be covered in a week or ten days, at the most by a small boat working from the actual mainland.

NESTING COLONIES

1. *Shell Keys* (Now a reservation).—These keys lie about south of east from Southwest Pass, Vermilion Bay, and are about four miles south of the mouth of Oyster Bayou, Marsh Island. The keys form a reef about a mile and a half in length. The eastern key is the longest and is separated by about a half-mile from the others. The chart shows the reef as composed of a single key.

These keys were visited May 16 and 17. About 300 Brown Pelicans, 500 Man-o'-War Birds and 900 Royal Terns were seen on the keys. The Terns had begun to nest on the central key and about 200 nests were found there. About 15 Pelican nests were found on this key and about 20 nests on the western key. The Man-o'-War Birds, so far as known, use the keys only as a resting-place.

Besides the birds seen on Shell Keys, about 60 Brown Pelicans and 200 Royal Terns were seen on Diamond Reef Keys, two and one-half miles off shore from Cheniere la Croix, Marsh Island. These latter keys are merely resting-places.

The Shell Keys are composed entirely of oyster-shell fragments, are devoid of vegetation, have an average breadth of about 15 feet, and are nowhere more than three or four feet above ordinary high tide.

2. *Caroline Cut Island*.—This small island is a portion of Isle Derniere. It is not named separately on the government charts. It lies west of a pass known locally as Caroline's Cut.

I visited this island June 3 and June 20. At the time of the second visit, Black Skimmers had begun to nest freely. There were about 750 of these birds on or about this island. Over 200 nests were found. No other birds were found nesting here, although 150 Royal Terns, 200 *White Pelicans* and 300 Brown Pelicans were seen. The extent of this island is about eight acres. There are a few raccoons on it, but otherwise it is an admirable site for nesting.

3. *East Timbalier*.—Nesting, except among the Black Skimmers, was in full progress while I was at this island, June 5 to 7. There were present about 4,500 Laughing Gulls, 5,500 Black Skimmers, 1,750 Louisiana Herons, 8 or 10 *Snowy Herons*, and 6 or 8 Black-crowned Night Herons. Very few Skimmers'



YOUNG BROWN PELICANS ON MUD LUMP, S. W. PASS, MISSISSIPPI RIVER

nests were found, but the Laughing Gulls and Louisiana Herons were nesting freely. The Gulls nest chiefly at the western end of the island, the Herons chiefly at the eastern end. The area of the island is about 50 acres. It is making at the eastern end, and washing at the western end. East Timbalier has the heaviest vegetation of any of the seaward islands, yet raccoons do not appear to be present.

Other birds seen here were about 200 Royal Terns and 500 Brown Pelicans.

4. *North Pass Mud Lumps* (All the mud lumps are now a Reservation).—These lumps are about a mile directly off the pass. Their bearing from Pass a L'Outre light is N. N. E. On two of these lumps, the larger of the two being only about one hundred feet across, the following birds were nesting: 25 Laughing

Gulls, 25 Royal Terns, 50 Forster's Terns, 75 Caspian Terns and 20 Brown Pelicans. A stop was made here, June 13.

5. *Pass a L'Outre Mud Lumps*.—A rather large lump lies a little to the north of a direct line out of this pass. Its bearing from the light is E. by N. $\frac{1}{2}$ N. A few Royal Terns, 25 Caspian Terns, 25 Laughing Gulls and about 125 Forster's Terns were nesting here. This lump was visited June 13.

6. *Northeast Pass Mud Lumps*.—About twelve islands, with a general bearing of E. S. E. from Pass à L'Outre light, lie off Northeast Pass. The more northerly of these lumps are in most cases the larger, and are occupied almost exclusively by Brown Pelicans. Of young and adults there were about 600 birds. From 350



LOUISIANA HERONS, EAST TIMBALIER

to 400 Forster's Terns and about 500 Laughing Gulls were distributed among the more southerly islands, and the majority of them were nesting. There were also about 50 Cabot's Terns in this vicinity, but no certain proof of their nesting was secured. These lumps were visited June 14.

7. *Southwest Pass Mud Lumps*.—Just to the east of the new jetties and about a mile from the lower end, I found about 200 Brown Pelicans nesting on three of the four lumps in that locality.

On the west of the jetties and near the upper end, two small lumps and two large lumps were found occupied by about 7,500 Brown Pelicans in every stage of nesting.

The situation of these lumps, within easy reach of the Southwest Pass light-house and the United States engineers' offices, renders them an ideal location

for a government reservation. Surveillance here would be a very simple matter. These lumps were visited on June 15.

FEEDING STATIONS

1. *Calcasieu Pass*—I had excellent opportunities for observation at this point, being held there by contrary winds from the evening of May 21 to the morning of May 26. Calcasieu Pass is the site of the Gulf Biologic Station, a state institution. The town of Cameron, or Leesville, is about two miles up the river. Except for this village, the region about Calcasieu Pass is rather isolated. The nearest town of any size, Lake Charles, is about forty miles distant in a direct line, and nearly sixty by river. This entire locality offers exceptional advantages as a preserve for both land and water birds. The country is low and open, for the most part. At the time of my visit, I observed about 50 Least Terns, 50 *White Pelicans* and 300 Black Skimmers feeding along the shore and about the pass. Florida Ducks were nesting plentifully in the vicinity. In winter, Ducks of many species are present by thousands. In spite of the lateness of my visit, shore birds were present in great variety and in considerable numbers. On the prairies, Doves, Meadowlarks, Bob-Whites and Nighthawks are exceedingly abundant. Some of the larger and less common water-birds, such as the Wood and Glossy Ibises, Roseate Spoonbill, Wood Duck, and Sandhill Crane are present where deep swamps and river woods occur in this region. Altogether, this entire locality seems one of exceptional avian resources.

2. *Trinity Bay, Isle Dernière*.—A number of birds were seen June 3 at the head of the bay, and at a point half-way up the bay. The species and approximate numbers were as follows: Black Skimmers, 600; Brown Pelicans, 450; *White Pelicans*, 175; Royal Terns, 100; Least Terns, 75; Laughing Gulls, 50; Forster's Terns, 15; Caspian Terns, 10. The nesting season of Black Skimmers had hardly begun when this locality was visited, but, as they have occupied it as a breeding place in former seasons, it is very probable that they are nesting there this summer.

3. *Wine Island*.—Although shown on the charts as a single island, this island has been divided into two parts. Birds were found on the spits at both ends of the eastern island, and on the eastern end of the western island. The total bird population here was: Brown Pelicans, 1,300; *White Pelicans*, 150; Royal Terns, 400; Black Skimmers, 100; Least Terns, 60. These were the estimates made on June 4.

4. *Ft. Livingston (Barataria Light)*.—Visited June 7, 10 and 16. About 25 Cabot's Terns and 300 Brown Pelicans were observed in this particular locality.

5. *Barataria Bay*.—I was in various parts of this bay and its contiguous waters, June 7-10, and June 16 and 17. 50 *White Pelicans*, 150 Brown Pelicans, 200 Forster's Terns and about 500 Laughing Gulls included most of the birds seen.

6. *Shell Islands, Bastian Bay*.—Though these islands seem to afford a very suitable nesting-site, being somewhat similar to the Shell Keys off Marsh Island,

few birds were found near them, and none were nesting. I saw, in all, about 25 Royal Terns, 40 Forster's Terns and 125 Brown Pelicans.

ENUMERATION OF SPECIES

Of birds seen in nesting colonies and at feeding stations. (Breeding colonies are marked with an asterisk [*].)

BROWN PELICAN—		CASPIAN TERN—	
Diamond Reef Keys	60	*North Pass.....	75
*Shell Keys	300	*Pass à L'Outre.....	25
Caroline's Cut Island	300		100
Trinity Bay.....	450	ROYAL TERN—	
Wine Island (eastern).....	325	Diamond Reef Keys	200
Wine Island (western).....	1,000	*Shell Keys	900
East Timbalier	500	Caroline's Cut Island.....	150
Ft. Livingston.....	300	Trinity Bay.....	100
Barataria Bay.....	150	Wine Island (eastern and western)...	400
Shell Island.....	125	East Timbalier	200
*North Pass	20	Shell Islands	25
*Northeast Pass	600	*North Pass.....	25
*Southwest Pass	7,500		2,000
	<hr/>	BLACK SKIMMER—	
	11,630	Calcasieu Pass.....	300
		*Caroline's Cut Island.....	750
WHITE PELICAN—		Trinity Bay.....	600
Calcasieu Pass	50	Wine Island (eastern)	100
Caroline's Cut Island.....	200	*East Timbalier	5,500
Trinity Bay.....	150	Northeast Pass	100
Wine Island (eastern)	200		7,350
Barataria Bay.....	50	LOUISIANA HERON—	
	<hr/>	*East Timbalier	1,750
	650	LAUGHING GULL—	
LEAST TERN—		Trinity Bay.....	50
Calcasieu Pass.....	50	*East Timbalier	4,500
Trinity Bay.....	75	Barataria Bay.....	500
Wine Island (eastern)	06	*North Pass.....	25
	<hr/>	*Pass à L'Outre.....	25
	185	*Northeast Pass	500
CABOT'S TERN—			5,600
Ft. Livingston.....	25	Grand Total	30,340
Northeast Pass	50		
	<hr/>		
	75	Approximate numbers of birds found breed-	
FORSTER'S TERN—		ing—	
*Barataria Bay.....	200	Brown Pelican.....	8,500
Shell Island.....	50	Forster's Tern.....	700
*North Pass.....	50	Caspian Tern	100
*Pass à L'Outre.....	125	Royal Tern.....	900
*Northeast Pass	375	Black Skimmer	6,000
Southwest Pass	200	Louisiana Heron	1,500
	<hr/>	Laughing Gull	5,000
	1,000		22,700

In making the estimate above, considerable difficulty was experienced on account of the unsettled condition of the birds. This was particularly true on East Timbalier. Frequent disturbance of the birds here made it almost impossible to judge the proportion of breeding to non-breeding birds. My estimates in this respect, therefore, are purely approximate. The estimates of birds seen are reasonably accurate.

ROUTE OF TRIP

The general course of my route was from Morgan City to Sabine Pass, and return, and from Morgan City to Pass à L'Outre, Mississippi river and return. The first trip occupied the time from May 15 to May 29, and the second trip was made between June 1 and June 21. Four days were entirely lost on account of head winds; three Sundays we lay at anchor and two days we stayed in port at Morgan City, while putting the Seabird on the ways for copper painting and small repairs. The rest of the time was spent either in making destinations or in studying conditions ashore. A log was kept for brief entries of the daily course, including all stops. A copy of the exact itinerary, as entered in this book, will be furnished on request.

COURTESIES EXTENDED

At the Gulf Biologic Station, Mr. M. H. Spaulding, who was in charge at the time of my visit, did everything possible to make my stay, and that of my crew, a pleasant one. At East Timbalier, Mr. Will Oliver, the lightkeeper, coöperated with me in warning off violators of the state laws, and furnished some of the material for the erection of large warning notices. At Southwest Pass jetties, the United States engineers put at my command what information they had.

In conclusion, I wish to express my satisfaction at the faithful performance of their duties by my crew, Captain Frank Couvillier and Mate O. C. Colson.

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OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. IX

NOVEMBER — DECEMBER, 1907

No. 6

A Thrashing by Thrashers

By HERBERT K. JOB

With photographs by the author

SOMEWHERE, I had read that the Brown Thrasher is at times very bold in defending its nest, even from human intrusion. But as the years slipped by and I had inspected nest after nest of this species, in every case finding the owners as timid as the average song-bird, I began to wonder whether the story was not the product of some nature-fakir's art, which needed the proverbial grain of salt. But one day I found out the truth of the matter.

On the afternoon of June 18, 1906, toward sundown, I was driving homeward along a country road, on one side of which was a farmhouse, and on the other a bushy pasture. Here I saw a Brown Thrasher fly across the road just ahead of me, carrying in its bill a large worm. It flew down into the pasture and alighted upon the top of a dead sprout which projected from a thick clump of bushes. After pausing a moment to look around, in order to be sure that the coast was clear, down it went into the midst of the thicket. It was evident that there was a nest somewhere near that spot, so I hitched the horse, took my 4 x 5 camera and tripod, and went to investigate. But, though I made a careful search of the thicket into which the Thrasher had gone, I could find no sign of the nest. After looking it through again without success, I was about to look further away when I began to hear some hissing sounds, which increased in vehemence as I began to follow up this clue. It proved to be no snake, but the Brown Thrasher, sitting close on a nest which was built into a cavity of the ground under the bushes. There the bird remained, though I was but a step away, looking up into my face and continuing to hiss, braving me and daring me to touch it.

Withdrawing a little, I made ready the camera on the tripod. But the presentation of that blunderbuss was too much for the Thrasher's nerves. It ran off into the bushes, where it was joined by its mate, and both of them set up a great outcry. I could now catch glimpses of them both, and discovered that the brighter-hued one, the male, was the one which had been on the nest. No wonder they were angry and anxious, for they had five promising young—ragged and uncouth, to be sure—but fine, healthy young birds. After opening the bushes, to let in a little

more light upon this interesting subject, I set the camera upon the shortened tripod, decked it with foliage, attached a thread, set the shutter for an exposure of one second, and retired awhile. The birds soon stopped their scolding, so I quietly returned and discovered that the male bird was again on the nest. I pulled the thread, and was glad to see that my subject did not move. He even allowed me to creep up behind the camera, change plates and make exposures by hand. But when I tried to push the camera nearer, he beat a retreat. It was now getting

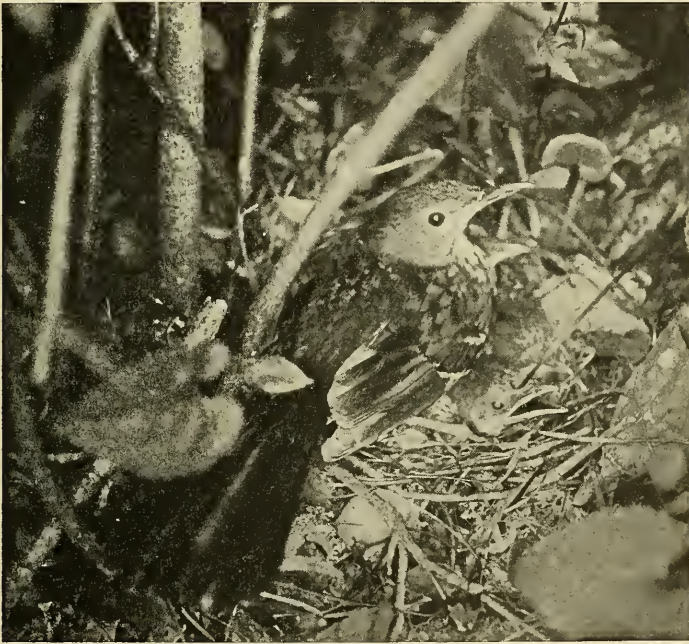


MALE BROWN THRASHER DEFENDING NEST

too dark for further work that day, so I put back the bushes in order and proceeded homeward.

Owing to trips away and rainy weather, it was not till four days later, June 22, that I was able to resume the work, this time with a reflecting camera. Again I found the male on duty. He slipped off, as before, and again I opened the bushes, and then, very innocently, put out my hand to the nest to remove an obstructing leaf. I was so surprised and startled that I almost fell over backwards when instantly the male Thrasher dashed from the shrubbery behind the nest and struck the offending hand a stinging blow. Instantly, he withdrew again and took his station behind the nest, waiting to see what I would do. As I was not looking for a fight, but for pictures, I stepped back a bit and squatted, waiting for the

brave defender to make the next move. Though it was mid-afternoon and the June sun was quite hot, and in a very short time the young, now about old enough to leave the nest, began to grow restless. The devoted father noticed this, and came at once to their relief. Running out from this shelter, he took his stand over them, spreading out wings and tail so as to make a perfect canopy to shield them from the sun. How impressive he looked as he bravely did his duty, with an air of being fearless and resigned to whatever might befall, if only he might protect his helpless little ones! The female was back in the thicket, exhorting



BROWN THRASHER AND YOUNG

him, I took it, to be brave,—though she took good care not to expose herself to danger.

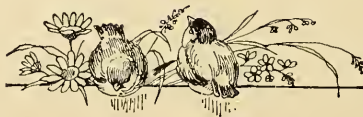
With the reflecting camera, I then advanced, and, presenting the instrument as near to him as I cared to, made a couple of exposures. Then I wanted a different pose of the brave bird, so I extended my foot toward him. Instantly he pounced at my leg, struck it a quick, angry blow, and hastened back to the young, this time sitting on the nest as though incubating. After getting his picture in this position, I decoyed him off again and again. After each attack he would generally go off into the thicket, whence in a short time he would return to the nest and there assume some new and striking pose. One such was when he stood over the young and some of them poked out their heads through the feathers of his wing to see for themselves what was going on. Sometimes, when I made only a slight feint,

he would run part way to meet me, and stand out in the open in a defiant attitude while I snapped him.

During the course of this fracas, the young had one by one crawled out of the nest and into the shade of the thicket,—all but one which was more puny than the rest, and could not get up out of the rather deep cup. It was fortune for me that this was so, for the brave little father was as ready to incur danger for one as for all. His fine example at length seemed to inspire his mate, for she began to grow more threatening in her advances, and she even came out in front of the nest, where I secured just one snap-shot of her standing on a low, flat rock.

Having now used up a couple of boxes of plates and secured pictures of about every possible position, I thought I would see what they would do if I actually handled the young. So I started to lay hold of the chick in the nest. But no sooner had I touched him than like a whirlwind, with shrieks of rage and despair, both Thrashers precipitated themselves upon me. Seizing my fingers with their claws, they hung on, scratching like badgers, nipping my hand here and there with their sharp bills, and beating it furiously with their wings. Then they darted off into the thicket, and again and again I touched the young one, with the same result. The whole performance so interested me that I felt no injury from their attack. When I bethought myself to look at my hand, I saw that it was dotted with little drops of blood, where they had scratched or bitten through the skin. Then I wrapped a handkerchief around as armor and let them try their strength on that. If I put my foot near the nest, they went for that in the same vindictive fashion.

My only lack was of an assistant, to photograph the birds in the act of attacking me. It was too late to secure one that afternoon. The next day I would have brought my son, but the rain poured down unceasingly, and on the following day the thrashing Thrashers and their offspring had retired from the bloody field of the hard-fought battle and the glorious victory. No doubt they believed that they had worsted and routed a *man*, and henceforth and forever Thrasher art, ballad and literature will, of course, prate of arms and of the man who, on a memorable day, baffled and beaten, backward reeled from some stubborn birds and a barren field. As for the man in the case, he no longer doubts the Thrasher prowess, and, even while nursing his sore hand, took pleasure in describing to interested auditors his rather unusual experience in receiving a thrashing from small but experienced professional Thrashers.



Around the Horn for Petrels

By JOHN TREADWELL NICHOLS

With photographs by the author

THERE is a glamour which hangs about the sea, due perhaps to its dangers, its wildness, its mystery. There is a peculiar fascination in the study of pelagic birds.

For some years the writer has been particularly interested in the Albatrosses and Petrels, and in the latter part of the year 1906 was fortunate enough to make a trip to their center of abundance, the Southern Ocean. Some species of this group occur on all oceans, but to find them in abundance one should cross the parallel of, say 33° south latitude. At about this point the weather changes from good to bad. South of it are the westerly gales and the birds.

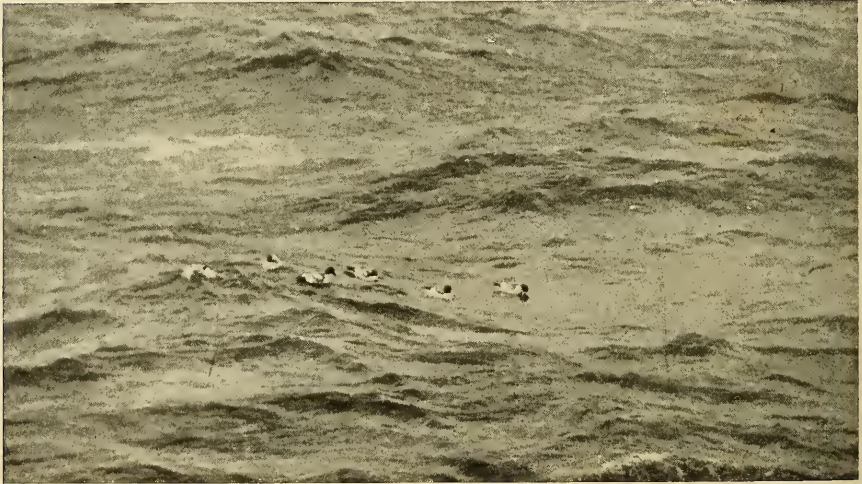
The ship, a square-rigged, iron sailing vessel which plies between New York and Honolulu, T. H., averaging about one year to the round trip, left her wharf, near the Battery, early one August morning. That same day, when well to sea, Mother Carey's Chickens became common. As to size, color and habits, birds of the Petrel order tend to be grouped about certain types. One of the best marked of these groups is the Mother Carey's Chickens. This again is separable into two structurally quite different divisions. One has short legs and generally a forked tail, and is characteristic of the Northern Hemisphere. A representative of it, Leach's Petrel, breeds on our coast from Maine northward. The Mother Carey's Chickens that were following the ship were, however, a long-legged, square-tailed species, Wilson's Petrel, which breeds in the far south in our winter, the southern summer, and, crossing the equator, is common off our coast in summer. For a few days they were about the ship, then they were gone.

We passed through a great, practically birdless area in mid-Atlantic, and once seven days went by without a bird,—the longest period of the voyage,—perhaps of my life. One day, out in this barren region, a beautiful white Tropic Bird was seen resting on the water. When the ship came abreast of it, it rose and flew away with characteristic flapping flight, and with a glass it was possible to see plainly its elongated central tail-feathers. Tropic Birds are as truly ocean wanderers as any fowl of the sea, and particularly characteristic of fine weather and the trade-wind belts of the Pacific. Here they are not numerous, and sometimes days go by without them; but again there are several flying about the ship, and their constant nasal cry becomes as familiar as the sunshine and the dancing trade-wind waves. They are higher flyers than the Petrel tribe, and this and their flapping flight mark them at once as of a different kidney from those low-sailing birds left in the westerly weather farther south. Sailors call them 'bo'sns,' and liken their elongated central tail-feathers to the 'marlin-spike' a boatswain might be expected to carry with him.

But, to return to Petrels. As we approached the equator, with South America drawing closer to the west and Africa to the east, there was a Mother Carey's

Chicken again, that looked so like those left in the Gulf Stream that it was probably the same species—Wilson's Petrel—journeying south to its breeding grounds. None could be secured, however, so the identification must stand as hypothetical.

Because we entered south latitude in September, which would correspond to our northern March bad weather and the birds were found well to the north. On September 18, about 20° south, there was a lone Cape Pigeon, not positively identified. That evening a heavy wind squall with rain and a little lightning bringing the wind about southwest, gave us our first taste of bad weather. Two days later there were 'Mollyhawks,' and the day after that Cape Pigeons. The smaller southern Albatrosses, exclusive of the gray, wedge-tailed *Phaethria*, the weirdest looking bird of the sea, belong to one type. Although systematists make



CAPE PIGEONS

two divisions of them, one of which includes also the large Albatrosses,—they are lumped by the sailor under the name 'Mollyhawk' or 'Molly,' and the name 'Albatross,' is reserved for the larger birds which differ also in color-pattern. Sailors claim that the 'Albatross' has one more joint in its wing than any other bird, and while doubting the anatomical truth of the statement, we still must confess that the narrow wing and elongated upper joints do give somewhat that impression.

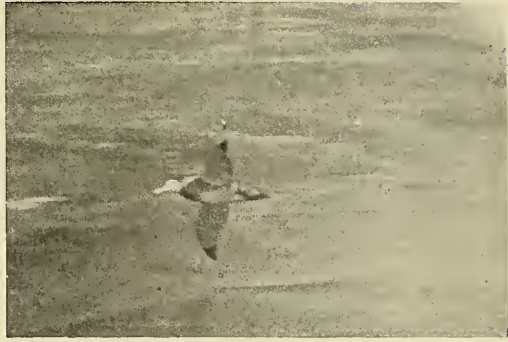
Petrels and Albatrosses are birds primarily of the sea. No less truly, however, are they birds of the air and wind. The high winds of the region they inhabit, instead of being an obstacle, are to them a source of power. The sailing flight shared by many species (all the Albatrosses, the Giant Fulmar, the familiar little spotted Cape Pigeon, etc.) is particularly adapted to wind, and perhaps this sailing flight is the most interesting, and to a landsman the most striking thing about these birds, not even excepting the great bulk and wing spread of the Albatross

which afterwards makes common birds seen unnaturally small. They all will occasionally give their wings a few flaps, but the sailing greatly predominates. I cannot do better than quote from my note-book.

"September 20. A gray day; the sun barely more than burning through the clouds in the middle of the day. Not much wind, and the sea very smooth, but for the swell. Heard a cetacean blow close to the ship, and had a glimpse of his rather light-colored, brownish black, and his small dorsal fin. Saw two or three Mother Carey's Chickens settle and sit on the water astern of the ship, which seems worth noting, because one usually sees them on the wing. There were a couple of small Albatrosses about,—the first this voyage. It was fine to watch these birds sweeping along in their sailing flight, at intervals interrupted by a few flaps of their great wings; turning this way and that, often leaning far over to one side; now close to the water, now curving into the air some yards above it. They seemed to flap their wings less frequently later when the wind was a little fresher, than earlier with less wind.

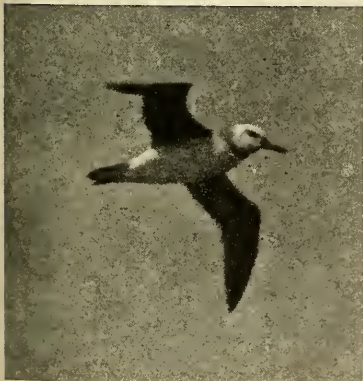
"September 22. Towards evening watched a small Albatross come close to the ship, and then fly off into the distance. I watched it as continuously as I could, and did not see it flap its wings at all. I believe it was sailing all the time. There was a strong wind blowing.

"October 29. In the afternoon there was a strong wind blowing. I was watching carefully the flight of some Cape Pigeons, a few 'Mollies' and a Cape Dove or slender-billed Fulmar. The flight of the three was very similar and illustrated well the sailing, Petrel flight at its highest development. Occasionally they gave their wings a few flaps, but only occasionally, and the general impression was that they were sailing, sailing, sailing always. The birds were sometimes horizontal, but often one wing was lower than the other, and frequently the bird was thus tilted far over to one side. I noticed that they turned toward the down wing, and probably this is a, if not the



YOUNG WANDERING ALBATROSS

A poor picture, which nevertheless shows the characteristic sailing flight, low over the water



MOLLYHAWK'

chief, factor in their steering method. Occasionally, I saw a bird flapping its wings often, as though it were for the moment tired of sailing, or found difficulty in getting properly started, but this was exceptional.

"The Cape Dove seems to be much like the Cape Pigeon in flight and habits, coming about the ship with equal fearlessness and being equally eager for food which may come from her. The light mark near the end of the wing also suggests the stronger though not dissimilarly placed mark in the Cape Pigeon, and I find it very useful in recognizing the species.

"Later I had a chance to watch a few *Phaebetria* and one or two large Albatrosses. The flight is the same as that just described. Perhaps *Phaebetria* is more inclined than the other birds to half flap its wings, a tremor, which it is hard to decide to have been flapping, or simply adjustment of the wings in sailing.

"October 31. At sunset watched a *Phaebetria* sailing about, back and forth, at times passing directly over the ship, and when highest in the air, I should say a little higher than her masts, I watched it for some time, constantly, until it sailed astern and I lost track of it for the moment. Only once or twice was it out of my sight for an instant, and I did not see it flap its wings once. It was sailing constantly. There was a breeze, but it was not blowing hard."

One thing all the members of the Petrel order with which I am familiar have in common,—they fly low. Their method seems to be to fly about over the sea scrutinizing the miles of salt water which slip by below them for what they may pick up; at the same time ready to take the hint from another more fortunate bird which they see drop down to some food it has spied. Luck must play a big part in this game, and who can say how many miles sometimes go by without yielding return. But miles mean little to them, and a day's gorging doubtless compensates for days of want.



CAPE HORN

The Heath Hen

A Sketch of a Bird Now on the Verge of Extinction

By DR. GEORGE W. FIELD,

Chairman, Massachusetts Commission on Fisheries and Game

DURING the past two years much interest has been shown to save the last remnant of the Eastern Pinnated Grouse or Heath Hen (*Tympanuchus cupido*). It was formerly distributed from Cape Ann to Virginia, and was especially abundant in Massachusetts, Rhode Island, Connecticut, Long Island and New Jersey; but immense numbers of adult birds were destroyed by guns and traps, while the young fell victims to the colonial cat and to forest fires. So abundant was this bird in the dark ages of ornithology, when indiscriminate slaughter prevailed without thought of the bird's economic value or place and function in Nature, that the articles of apprentices often specified that they should not be compelled to eat the meat of this Grouse, (locally called 'Heath Hen'), oftener than twice weekly.

Between 1800 and 1840 the bird had been generally exterminated in Massachusetts. In 1844 Giraud believed it to be extinct on Long Island; as late as 1869 it was still found in New Jersey, and today the very last stand of the bird is on the island of Martha's Vineyard.

The eastern bird was first distinguished from the western type by William Brewster, and described by him under the name *Cupidonia cupido* (Auk, January 1885, p. 82). In 1890 Mr. Brewster estimated that 120 to 200 birds, inhabiting about forty square miles, were left over from the previous winter. This number has slowly but surely diminished. Careful daily observations, extending from October 1906 to May 1907, showed that the inhabited area has become restricted to about thirty square miles, and the probable number of individuals to less than one hundred. By actual count of the flocks very definitely located in various sections of the range, seventy-seven different individuals were accounted for. In May 1906, a destructive forest fire swept practically the entire breeding grounds, and very few birds were reared that season. The summer of 1907, however, was a favorable one. We know that at least ten broods were successfully reared, and our census this year will probably show that the number of birds has more than doubled.

This Grouse (called 'Hethen' by the natives) has been a well-known and characteristic bird of the island as far back as memory or local tradition extends. Opinions are widely held that from time to time western Pinnated Grouse or Prairie Hens have been liberated on the island. Careful inquiries indicate that the facts are as follows: (1) In 1859 Dr. Fisher liberated Ruffed Grouse and Quail on the island, but no western Prairie Chickens; (2) In 1902 specimens of the western Prairie Chicken (*Tympanuchus americanus*), which had survived the sportmen's show at Boston, were liberated on Martha's Vineyard, but no subsequent indications of their presence are known.

In 1877, foxes and coons were introduced for sport and later liberated from spite, but it is probable that these have now been exterminated, and at present the chief checks to the increase of the Heath Hen are (1) the forest fires, which in recent years have swept large areas of the breeding grounds almost annually, usually during the nesting period; (2) cats, whether kept or abandoned by the summer visitors, feed upon the young Heath Hen, Terns and other birds; (3) certain species of hawks, notably the Goshawk, are known to kill considerable numbers of adult Grouse; (4) with the increase of poultry raising on the islands, particularly of the Turkey, there is danger of the introduction of enteric diseases, notably "the black head," caused by the internal parasite *Amœba melagridis*, which is equally fatal to Turkeys, Ruffed Grouse and Quail, but which is also spread by domestic fowls.

About 1813 the Heath Hen disappeared from the district around Springfield, Massachusetts. In 1824 it was reported as no longer common around Boston. Cape Cod was the last stand on the mainland. In 1831 the 'Grouse or Heath Hen' had become so reduced in numbers that a law was passed making a close season from March 1, to September 1. In spite of this, the decline continued. Chapter 170, Acts of 1837, made a close season of four years upon this bird, which, by Chapter 7, Acts of 1841, was extended for five years. These acts, however, permitted any town to suspend this law in that town for such a period as they deemed expedient. Some towns took advantage of this to secure special privileges for the inhabitants of that town, e. g. Tisbury, on May 6, 1842, "Voted that the Law for the Preservation of the Grouse or Heath Hen be so far suspended in the Town of Tisbury as to allow the inhabitants of said town to kill, take or sell Grouse or Heath Hens from the first day of December to the tenth day of December inclusive, provided they hunt them without the aid of dogs." The action of a subsequent town indicates that the decline in numbers was rapid. On April 1, 1850, the same town of Tisbury voted to suspend this law so as to permit the hunting (without dogs) of these birds on the "12 and 13 of November next." (Perhaps for the purpose of providing a substitute for the Thanksgiving Turkey.) From this period to 1975 there were no systematic attempts to enforce the law. The number of birds killed usually equaled or frequently exceeded the annual increase. The islanders resented the intrusion of non-resident hunters, but many birds were killed by rabbit hunters and by duck hunters crossing the island to the ducking stands on the south shore. Some birds were taken by collectors, and these skins, supplemented by others bearing fraudulent data, were disposed of extensively to museums and natural history stores.

During all this period, however, there was kept alive the feeling of local pride in the Heath Hen as a peculiar possession of Martha's Vineyard. It has been even stated that sentiments wellnigh voodoo-like in tendency were current on the island,—e. g., that a boy must eat Heath Hen before reaching a certain age. The writer, however, from careful inquiry, is of the opinion that there is no basis for such statements.

Since almost nothing has been recorded of the habits of the Heath Hen, the following notes, made by the writer on the spot, may be of interest.

MARTHA'S VINEYARD, May 1, 1906

At 6 P. M., we arrived at the point where we hoped to find traces of the Heath Hen. In a cleared field about thirty rods from the road we distinctly saw two large birds. On our nearer approach they squatted close, and their protective coloration was so effective that, although we knew almost exactly the precise location of the birds, we could not distinguish them. We crawled behind the nearest cover, and



THE HOME OF THE HEATH HEN

The men are looking at the nest shown in the next illustration.

Photographed by George W. Field

remained motionless for perhaps ten minutes. At length the long shadows from the descending sun enabled us to distinguish the birds as they crouched with head close to the ground, among the very scanty vegetation. After another interval of motionless activity on our part, one bird quickly arose and began feeding, apparently without suspicion; soon two more birds arose as if by magic from the ground. Then began a most interesting series of antics. These birds were joined by five others, coming in singly and on foot from the scrub in various directions. The birds came frequently within forty paces of our hiding-place, and in one instance alighted on a small oak tree twenty-three paces from our camera. While not near

enough for successful photographing, we were well situated for using our field glasses. The birds were all actively feeding in the open field, apparently on grasshoppers and other insects, but nipping red clover leaves very freely. They moved leisurely about. Frequently two birds, sometimes as much as one hundred to one hundred and fifty yards apart, ran directly toward each other, dancing and blowing on the way, with the so-called 'neck wings' pointed upward in a V form. On facing each other, both squatted and remained motionless from one to five minutes. We could see none of the nodding and pecking motions of the head so commonly indulged in by domestic fowls when fighting; rarely was there sparring with the bill or striking with the feet and wings. In twelve or fifteen encounters, only three or four times did they strike thus, and only once did we see 'feathers fly.' Most of the energy seems to be spent in posturing and blowing. Generally, one of the combatants backed slowly away, suddenly stopping if the opponent advanced too rapidly. In all these fighting tactics the similarity of habits with those of the domestic fowl were very marked. From all directions came the peculiar 'toot,' like distant tug-boats in a fog, all having whistles of the same pitch. This call may be well imitated by blowing gently into the neck of a two-drachm homœopathic vial. Each call extends over a period of two seconds, and is repeated at frequent intervals. It is prefaced by a run of about one yard, with very rapid, mincing steps. The strides, however, are so short that the bird does not advance rapidly. The tail is spread and the wings dropped after the manner of the strutting Turkey cock. When the tail is spread, the white under-tail coverts are conspicuous, and remind one forcibly of the 'white flag' of the deer and antelope or of our gray rabbit. The head is then depressed and the neck outstretched forward until it is about parallel with the surface of the ground; the neck tufts are elevated to a V-shape. The bright, orange-colored air-sacs on each side of the neck, directly behind the tufts of feathers, are slowly inflated until they reach apparently the size of a tennis-ball, when they appear like two small, ripe oranges, one protruding from either side of the neck. The duration of the call appears to closely coincide with the period of inflation, and seems to be emitted as the air enters the sac, rather than when the air is expelled. The collapse of the sac is sudden. The sound is ventriloquial, and it is very difficult to locate the direction or distance whence it comes, unless the bird can be seen. A second sort of call is much less frequent, and closely resembles a single syllable of the hoot of the Barred Owl.

Another characteristic antic was a peculiar combination of a short run, a sudden jump of three to five feet into the air, and a rapid uncoördinated flop and scramble in the air, the bird usually alighting within ten or twenty feet of the starting point, but turning so as to face at least at right angles, or even in the opposite direction from which it started. When in the air, it emits a peculiar cacophonous call or cackle, which, when heard at a distance, gives the impression of a hearty burst of laughter. The purpose of these semi-somersault-like manœuvres appeared to be to attract the attention of other birds, possibly even as a challenge,

for frequently they seemed to precede the somewhat pacific duels described above. The effect of these sounds, together with the 'tooting' calls in the mists which so often obtain in their habitat before sunrise, is weird in the extreme. At 4:15 A. M. on May 2, these sounds were practically continuous, without appreciable interval, apparently from all directions. At 4:45 A. M. six birds could be counted, all in sight at once. They appeared to resort to a particular clear space of about two acres in extent, where the antics just described were carried on. All the birds, except one, were observed to have the orange-colored air-sacs. These



THE FIRST NEST OF THE HEATH HEN TO BE DESCRIBED
AND PHOTOGRAPHED

Photographed by George W. Field, June 2, 1906

were probably cocks. We saw only one bird which we suspected might be a hen. The other hens were probably nesting, or at least had secured mates, and no longer resorted to the promenading place. As the sun rose high the 'tooting' became less frequent; the birds became more restless, often flying to the neighboring low oaks, nesting there until disturbed. The flight reminds one of that characteristic of the Carrion Crow or Black Vulture of the south (*Catharista urubu*),—a succession of four to ten strong, rapid wing-beats, followed by a sail of one hundred to two hundred yards on set wings; this is repeated until the bird again alights or passes beyond the range of vision. The line of flight is usually a straight line, twenty to twenty-five feet above the ground. Of our native birds, the manner of flight most resembles our Meadowlark.

The bird gives one the impression of admirable adaptation to the open country,— a large, muscular, hardy, vigorous bird, able to withstand snow and sleet, in size equal or even exceeding the Ruffed Grouse in weight. Inhabiting open fields and pastures, subsisting on insects, leaves, seeds and wild berries, in a country where the absence of foxes and raccoons reduces the numbers of its enemies practically to cats, men, skunks, field-mice and rarely some species of hawks, the problem of maintaining and bringing back the bird to its former abundance seems practicable.

Of the total number, twenty-one, which we observed on May 1 and 2, twenty were plainly males; of the sex of one we were uncertain.

On June 4, a set of nine Heath Hen's eggs was taken and placed under a bantam hen, selected for this purpose because she appeared to be unusually tractable; but on June 20, when one of the chicks hatched it was immediately killed by the hen, which attacked it viciously before it was entirely out of the shell. The



THE HEATH HEN GROUP IN THE AMERICAN MUSEUM OF NATURAL HISTORY

The nest and eggs are shown *in situ* in the preceding illustration

Photographed by J. Otis Wheelock

other Heath Hen's eggs failed to hatch, and only one contained a well-developed embryo. After destroying the Heath Hen chick, the hen was given some pheasant eggs, hatched them, and reared the chicks with all possible care.

An injured Heath Hen was received from Martha's Vineyard, November 19, but refused to feed, and, though placed in a pen with a tamed Ruffed Grouse, lived only a week in the pen.

The only nest known to the writer was found in oak woods among sprouts at the base of a large stump and contained either twelve or thirteen eggs, about June 10. William Brewster has a set of seven eggs taken July 24, 1885.

The value of the birds as a local asset was early appreciated by many of the best people, but to J. E. Howland is due the credit for initiating the action which promises to prevent for all time the extermination of this bird. Mr. Howland called the attention of the Massachusetts Commissioners on Fisheries and Game to the conditions, and a permanent guardian was located in the midst of the region inhabited by birds, to study their habits and to enforce the law. Amply supported by public opinion, Representative Mayhew introduced a bill, placing under the control and use of the Commission on Fisheries and Game such lands as may be donated, leased, purchased or otherwise placed under temporary or permanent control as a refuge and breeding area for the Heath Hen. Already \$2,338 has been pledged by public-spirited individuals and associations for the purpose, and about 1600 acres placed under special protection. In order that the expense may be minimized, the legislature authorized the commissioners to take, "for and in the name of the Commonwealth, such unimproved lands upon Martha's Vineyard, not exceeding one thousand acres, as they may deem necessary for the purpose of making fire-stops for the protection from fire of the feeding and breeding grounds of the Pinnated Grouse, or of otherwise securing the maintenance and increase of such Pinnated Grouse or of any other species of wild birds upon said islands." For work "incidental to these purposes, and for an investigation and reports upon the best methods and probable cost of protecting and increasing the colonies of birds on the island," two thousand dollars was appropriated by the last Massachusetts legislature.



A Season's Field Work

By FRANK M. CHAPMAN

With photographs by the author

THE many readers of BIRD-LORE who have expressed an interest in the 'Habitat Groups' of North American birds, now being prepared in the American Museum of Natural History, may care to hear briefly of the field work accomplished in connection with these groups during the past season. This work can be prosecuted only during the nesting season.

The studies for this year were, therefore, planned to cover as long a nesting period as possible, beginning with southern species which nest as early as January, and ending with northern birds which are not concerned with domestic affairs until July. In brief, the schedule was as follows:

March, southeastern Bahamas for Man-o'-war Birds and Boobies (*Sula leucogastra*).

April, southern border of the Florida Everglades for Spoonbills and Ibises.

May, South Carolina for White Egrets.

June, plains of Saskatchewan for Wild Geese and Grebes.

July, summits of the Canadian Rockies for Ptarmigan and other arctic-alpine birds.

The species of birds here included show wide variation in form and in nesting habit, while the country in which they live,—their habitat—presents an even greater diversity as we pass from a coral islet to a mangrove swamp or cypress forest, or over rolling plains to snow-clad mountain crests. The subjects selected were thus designed to add to the zoölogical as well as the geographical instructiveness of the exhibits as a whole.

A series of mishaps so prolonged the Bahaman expedition that I was prevented from reaching the Everglades in time to find Spoonbills nesting, but, with this exception, the schedule outlined above was followed with eminently satisfactory results.

On March 28, with Dr. Alfred M. Mayer and Mr. George Shiras, 3d, I sailed from Miami, Florida, for Nassau, Bahamas, aboard the 58-foot auxiliary ketch 'Physalia,' belonging to the Marine Biological laboratory of the Carnegie Institution. Dr. Alfred M. Mayer, director of the laboratory, was in command. To Dr. Mayer's coöperation the Museum is indebted for the success which attended our efforts to secure material and studies for the group of Man-o'-War Birds and Boobies; indeed, had it not been for Dr. Mayer's skillful seamanship, it is probable that the expedition would not have returned.

Nassau was reached March 29, at midnight. Laboratory supplies were here landed for the use of members of the staff, who proposed to pursue their studies in this vicinity, and, permission to collect the birds needed having been promptly granted by the Bahaman Government, we set sail for Cay Verde, March 31, at 7 A. M.

Cay Verde is an uninhabited islet of some forty acres area, situated on the eastern edge of the Columbus Bank, between the Ragged Islands and Inaugua. It is only 250 miles from Nassau, but, owing to adverse weather conditions, which at times threatened us with serious disaster, ten days were required for the voyage.

The absence of definite information, both as to the number of birds frequenting Cay Verde and the time of their nesting, made the outcome of our trip more or less uncertain, and the difficulties encountered in reaching this remote islet added in no small degree to the pleasure with which we found it thickly populated with Boobies and Man-o'-war Birds, whose nesting season was at its height.



CAMP ON CAY VERDE

The birds in the air are Boobies

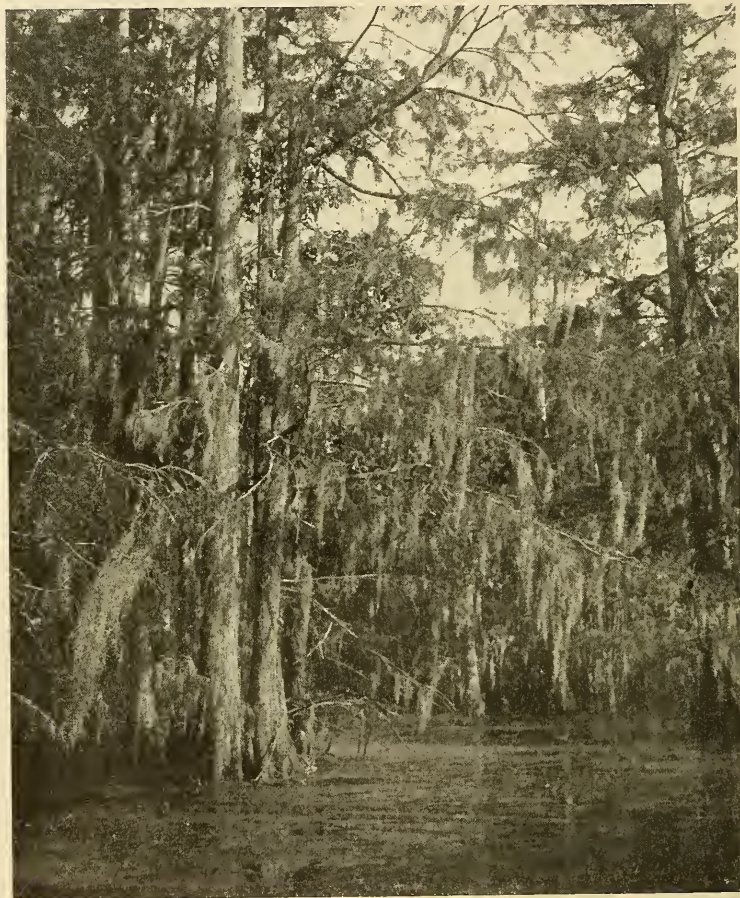
There is no harbor at Cay Verde, and, fearing that we might be forced by a storm to leave, Mr. Shiras and I camped on the islet, while Dr. Mayer anchored off shore, changing his position from one side of the Cay to the other, as the wind required.

We estimated that there were about three thousand Boobies and five hundred Man-o'-war Birds on Cay Verde. The Boobies nested on the ground, the Man-o'-war Birds in the dense thickets of sea-grape and cactus. Some nests contained fresh eggs, but the larger number held young birds in various stages of development, while a few young were already on the wing. The nesting conditions, therefore, presented an epitome of the whole nesting season.

The Boobies were remarkably tame, our intrusion occasioning surprise and

resentment rather than fear. One could walk among them as one would through a poultry yard, examining the nests and their occupants without attempt at concealment.

The Man-o'-war Birds were more suspicious, but still were approached without difficulty. Under these circumstances photographs and specimens were



CYPRESSES IN WHICH WHITE EGRETS WERE NESTING

The blind from which the birds were studied may be seen in the upper right-hand corner of the picture

easily secured, and at the end of three days satisfactory material was collected for the proposed group. A much larger period would be required to make adequate studies of the life of this bird community. Cay Verde was left April 11, and, after encountering the usual unfavorable conditions and some mishaps, we arrived at Miami April 29.

It being now too late to do the work planned for southern Florida, I pro-

ceeded to South Carolina, being joined by Mr. J. D. Figgins of the Museum's department of preparation, and by Bruce Horsfall, the artist, who has so successfully painted many of the backgrounds of the groups already completed.

It has long been our desire to include the White Egret in the series of 'Habitat Groups,' but plume hunters have brought this bird so near the verge of extermination that our efforts to find a 'rookery' in which suitable studies might be made had been fruitless. However, in February, 1907, information was received of the existence of a colony of Egrets on a large game preserve in South Carolina, where the Museum was readily granted permission to make the necessary studies and collections. On our arrival, every facility in the way of transportation, guides, etc., was accorded us.

When the ground in which the rookery is situated was acquired by the club now owning it, plume hunters had nearly exterminated the aigrette-bearing Herons which formerly inhabited it in large numbers. A few had escaped, and, after seven years of protection, they have formed one of the largest colonies of this much persecuted bird now existing in the United States. Six other species of Herons were found nesting with the White Egrets, the whole making a rookery such as existed commonly in the days of Audubon, but which in the United States are now almost unknown.

A former 'plumer,' now chief warden in charge of the preserve, stated that both the little White or Snowy Egret and the Roseate Spoonbill were once found in the region, but their complete annihilation left no stock which, under pro-



WHITE EGRET AND YOUNG

Made from the blind shown in the preceding picture

tection, might prove the source of an ever-increasing progeny. It is doubtful if these birds could be introduced, but, in any event, the preservation of the White Egret alone is a sufficient cause for thanksgiving, and bird-lovers will learn with gratification of the existence of an asylum where this beautiful creature will long be assured of a haven of refuge.

The Egrets were nesting high in the cypress trees growing in a lake several miles in length. In order, therefore, to make the photographic studies so essential to the taxidermist in securing life-like poses for his subjects, as well also, as to



RINGED-BILLED AND CALIFORNIA GULLS, CRANE LAKE, SASKATCHEWAN

learn something of the Egrets' little-known home life, the artificial umbrella-blind employed on many previous occasions was placed fifty feet up in a cypress tree, and draped with Spanish 'moss' (*Tillandsia*). From it photographs of the birds nesting in neighboring trees were eventually made.

The surroundings here were of great beauty, and Mr. Horsfall's carefully-made studies will no doubt enable him to reproduce in his background the singular charm of a flooded cypress forest.

On June 5, accompanied by Mr. L. A. Fuertes, as artist, I left New York for Maple Creek, Saskatchewan, on the line of the Canadian Pacific railway. This is a region of rolling plains dotted with lakes and ponds, which, when the water is not too alkaline, support in their shallower parts a dense growth of rushes,—the home of Grebes, Coots, Bitterns, Franklin's Gulls, Ruddy, Red-headed

and Canvas-back Ducks. About the grassy borders of the lakes and sloughs, Mallards, Gadwalls, Pintails, Widgeon, Blue-winged Teal and other Ducks nested. These species were also found on islands in the lakes where alone the Wild Goose was known to nest, while some small islets were virtually covered by hosts of Gulls and Pelicans.

On the prairies, Long-billed Curlew, Marbled Godwits and Bartramian Sandpipers laid their eggs. The region has well been called the nursery of wild fowl, as at one time were our border states to the south. But the advance of civilization, which first transforms a buffalo range to a cattle country, and later to a



CAMP AT PTARMIGAN PASS

wheat ranch, has already reached the early stages of its agricultural development about Maple Creek, and the forced retreat of the wild fowl to the more remote north is only a question of time. The Canadian Government would do well to set aside some of its still unsettled lands as permanent breeding reservations, to which each year, the water-fowls could return to nest. Such reservations would in truth be nurseries, and, in permitting a bird to reproduce, would be of infinitely more importance than preserves which afford protection only during the winter.

Near Maple Creek, materials were secured for groups of Wild Geese, Western and Eared Grebes, the Long-billed Curlew and Bartramian Sandpiper, due permission having first been received from the chief game guardian of the Province. The lack of timber and of drinking water made this region poor camping-ground,

and, while hunting and collecting, we were given quarters with Mr. Andrew Scott on Crane Lake and with the Messrs. Baynton on Big Stick Lake. To these gentlemen we are indebted not alone for entertainment but for much practical assistance.

July 2, we resumed our western journey in search now of those arctic birds which on the alpine summits of the Rocky Mountains find congenial surroundings.

After inquiry at various places, we decided to camp near the Ptarmigan Lakes, where we were informed the birds we wanted could be found. Saddle and pack-



MR. FUERTES ABOUT TO STROKE A WHITE-TAILED PTARMIGAN
ON ITS NEST

The bird left the nest a moment later

horses and a guide were secured at Laggan, and on July 8, we encamped near timber-line, here at an altitude of 7,500 feet, just below the entrance to Ptarmigan pass.

The alpine spring was at its height. The wet meadows from which the snow had but lately disappeared were yellow with buttercups, the borders of the rapidly shrinking snowbanks were starred with large white alpine anemones; on the drier slopes heath and heather bloomed luxuriantly, and the rocks were covered with flowering *Dryas*. The lakes were still ice-bound, the mercury reached the freezing point nightly, and we experienced storms of snow and sleet, our tent, one morning, being stiff with ice.

Our work in this indescribably picturesque region was unexpectedly successful, specimens of birds and plants and a large number of photographs being obtained. Furthermore, the view from the heather-grown home of the Ptarmigan, which will form the actual foreground of our group southward through the Ptarmigan pass, was, even in this land of sublime scenery, of exceptional grandeur. The successively fainter timber-clad shoulders of the gap leading to the Bow valley are backed by Mt. Temple towering impressively, the central peak on a horizon marked, to the east, by the spire-like summits of the mountains about Moraine lake and to the west by Hungakee, Lefroy, and Victoria.

The tourists who climb these mountains or penetrate the valleys lying between them, may obtain a far more striking view of the range by crossing the Bow river at Laggan and ascending the mountains to the north, in which the studies for our Ptarmigan group were made.

Bird-Lore's Eighth Christmas Bird Census

THE plan of reporting one's observations afield on Christmas Day has met with such cordial and practical endorsement by bird students throughout the country that BIRD-LORE'S Christmas Bird Census may now be considered a fixed event, which increases in interest as the accumulating records give additional material for comparison. From a total of 25 lists received in 1900, it has grown to 135 lists in 1906.

Reference to the February, 1901-1907 numbers of BIRD-LORE will acquaint one with the nature of the report of the day's hunt which we desire; but to those to whom none of these issues is available, we may explain that such reports should be headed by a brief statement of the character of the weather, whether clear, cloudy, rainy, etc.; whether the ground is bare or snow-covered, the direction and force of the wind, the temperature at the time of starting, the hour of starting and of returning. Then should be given, in the order of the A. O. U. 'Check-List,' a list of the species seen, with exactly, or approximately, the number of *individuals* of each species recorded. A record should read, therefore, somewhat as follows:

Yonkers, N. Y. Time, 8 A. M. to 12 M. Clear, ground bare; wind west, light; temperature 38°. Herring Gull, 75. Total,—species,—individuals.—JAMES GATES.

These records will be published in the February issue of BIRD-LORE, and it is particularly requested that they be sent the editor (at the American Museum of Natural History, New York City) not later than December 28. It will save the editor much clerical labor if the model here given and the order of the A. O. U. Check-List be closely followed.

The Migration of Flycatchers

FIRST PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data
in the Biological Survey

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSEFALL

READERS of BIRD-LORE who are familiar with Professor Cooke's contributions on the migrations of Warblers and of Thrushes will be gratified to learn that with the kind permission of the Biological Survey this valuable series will be continued with a similar treatment of the Flycatchers. The unrivalled amount of data which Professor Cooke has at his disposal gives to these papers a value and interest readily appreciated by all field students of bird-life.—ED.

SCISSOR-TAILED FLYCATCHER

The winter home of the Scissor-tailed Flycatcher is in Central America and Mexico, from which region it enters the United States in March. The average date of arrival near San Antonio, Texas, is March 21, and the earliest, March 16, 1904. The bird is one of the most uniform species in its dates of arrival from year to year. During fifteen years of observation, it reached San Antonio for five years on March 21, and for eleven years within two days of this average date. In southern Texas the average date of arrival is March 18, the earliest being March 12, 1898. The average date in northern Texas is March 26, the earliest being March 21, 1876. Thus, the species, on the average, is only eight days in crossing the great state of Texas, or an average of more than fifty miles per day—a speed almost twice as great as the average of birds in the southern United States.

The Scissor-tailed Flycatcher is one of the few birds whose progress can be measured in this way, from southern Texas to the northern part of the state, for the reason that it migrates from its winter home to its breeding range by a land route through Mexico, while some other species that fly across the Gulf of Mexico to Texas appear in northern Texas as early as they are seen along the Rio Grande.

The Scissor-tail is most common in eastern Texas, fairly common in southern Oklahoma, and ranges north to southern Kansas. The journey from Texas to Kansas is usually made during the first ten days of April.

The return movement begins in August, and the greater number leave the United States in September. The last bird at Winfield, Kansas, was seen September, 26 1902. In northern Texas, the average is October 11, the latest, October 18, 1888. In central Texas, the average is October 18, the latest, October 20, 1892.

A few enter Louisiana, and they have been noted as arriving at New Orleans, March 25, 1894; the latest record being near Kenner, Louisiana, October 6, 1889.

The Scissor-tail is one of the greatest of wanderers. While its regular home

extends from eastern Louisiana to southern Missouri, central Kansas and south to central Texas, it has been noted as an accidental visitant in twelve of the United States and three Canadian provinces, from Florida and Colorado to New Brunswick and Hudson Bay.

VERMILION FLYCATCHER

This species winters in Mexico, so near the United States boundary that it sometimes appears in February (San Antonio, Texas, February 8, 1890; Oracle, southern Arizona, February 25, 1899). Usually, however, it enters Texas a month later, and the northern limit of the ordinary range, which is about at San Antonio, is reached the latter part of March. About the same time the birds enter their breeding grounds in the lower mountain valleys of Arizona. A few wander in winter to southern California, as far northwest as Ventura county. Stragglers have been taken in southwestern Utah, May 13, 1891, and in northwestern Florida, March 25, 1901.

The Common Names of North American Birds

IN preparing its 'Check-List of North American Birds' the Committee appointed by the American Ornithologists' Union showed excellent judgment in the selection of the 'common' or English names for our birds. With few exceptions the names adopted have met with general approval and are now in almost universal use. In this period of biblio-zoological activity little is now left of the scientific nomenclature of the first (1886) edition of the 'Check-List,' whereas the English names, not being subject to nomenclatural rules, have proved far more stable than the technical ones. Winter Wren, for example, is still Winter Wren, though from 1886 to 1907 it has been known as *Troglodytes hiemalis*, *Anorthura hiemalis*, *Olbiorchilus hiemalis* and *Nannus hiemalis*.

Only the specialist keeps informed of these changes, but the name Winter Wren is intelligible to all concerned. The consistent use of the English names of the 'Check-List'—and in BIRD-LORE we try to employ these names consistently—renders unnecessary for purposes of identification the use of the technical name. In the forthcoming edition of the 'Check-List,' therefore, it is hoped that the A. O. U. Committee will make only such changes in the common names of our birds as seem to be absolutely necessary. Where, however, the attempt to secure the adoption by the public of names given in the original edition of the 'Check-List' (e. g. Bartramian Sandpiper, House Finch, Wilson's Thrush) has failed, the name most commonly used should be accepted for the new 'Check-List.' Again, certain 'Check-List' names are so obviously inapplicable (e. g. Louisiana Tanager, Magnolia Warbler, Palm Warbler) that a change seems desirable. The subject is eminently one for popular discussion and BIRD-LORE will be glad to print the views of its readers.—ED.

Notes from Field and Study

Photographing a Loon

When I arrived at Spencer Bay, Moosehead Lake, last June, I was told that there was a Loon's nest on a small island three miles down the bay. The birds, they said, were in the habit of nesting there each summer. A few days later I was rowing around this island to find a landing-place, and was greatly surprised to see the old Loon, which I imagined far out on the lake, come scrambling out from under a pile of logs and dive into the water. This was my introduction to a bird which afterward gave me no little excitement when I attempted to take its picture.

My first chance to photograph the Loon presented itself two weeks afterward, as my guide and I were paddling down the bay on our way to a neighboring pond. The Loon's island lay directly in our

course, and, remembering my previous experience with the bird, I suggested that we try to photograph him. When we were within fifty yards of the island, I arranged the camera for an exposure at fifteen feet. The guide then paddled quietly up toward the place where I had seen the Loon dive into the water. Nearer and nearer we approached, until it seemed as if the Loon was not there, and that we were to be disappointed. Suddenly, with a great commotion, the old bird came scrambling off the nest and dove into the lake, as before splashing water right into the canoe, and startling me to such an extent that I hardly had enough presence of mind left to press the bulb.

Our calculations were upset completely by the bird's sudden retreat at the last minute. We had no idea that he would allow us to approach as near as we did. The camera was focused at fifteen feet,



LOON LEAVING ITS NEST

Note how the white neck-ring seems to cut the bird's head off; an apparently conspicuous mark, which, in effect, renders the bird less evident. Photographed by John S. Perry



PEARS EATEN BY STARLINGS

and, as a matter of fact, when the exposure was made, I could not have been five feet from my subject. It is no wonder then that the negative, upon development, showed only a gigantic splash and no Loon.

The experience gained from our first attempt, together with good luck, enabled us, in our second, to secure a picture, which, considering the subject, might be called a success. We employed the same tactics as before, except that we kept further out from the shore, and, having gained respect for the old fellow's rapidity of motion, set the shutter speed at one hundred and twenty-fifth of a second. This time, the Loon, when we started him, did not immediately dive into the water, but skirted the shore for a few feet, and, in so doing, gave me a better opportunity to expose my film at the right moment. How well I succeeded may be judged by looking at the picture itself.

I afterward attempted to photograph the Loon on the nest by means of a set camera, but was unsuccessful. The camera may not have been hidden skillfully enough to deceive so wary a bird as the Great Northern Diver. But another reason for my failure has been suggested to me by hearing the guides declare that in hot weather the Loon often leaves her nest for a long time, relying upon the hot

sun to keep the eggs warm. I am inclined to doubt this, and think that the cause of my not getting the picture was due to the extreme shyness of the bird.—JOHN S. PERRY, *Troy, N. Y.*

The Starling Eats Pears -

In the early morning of October 17, 1907, the pleasing notes of Starlings were heard in a large pear tree close to the window of my home at New Brighton, Staten Island. I looked out cautiously and saw three Starlings engaged in eating the ripe pears. They were very noisy about it, and each seemed to think that the pears being devoured by the other two were better than its own, and they accordingly changed places several times. In a few minutes a large portion of each pear had been devoured, and the Starlings flew away. All the time they were busy, several House Sparrows sat within a foot or two, looking on, and, as on previous occasions, I observed that they had no fear of the Starlings. However, they knew better than to molest these comparatively new comers, and seem to be treated with indifference by the Starlings.

When the birds were gone, I climbed the tree and procured two of the pears, and it will be seen from the photograph that they were quite destroyed. Under the tree I found two other pears that had evi-

dently been eaten on a previous occasion. These fallen pears are quickly covered by *Prenolepis* ants, that may sometimes get the credit for the destruction first commenced by the Starlings. When critically examined, however, the work of the birds is very unlike that of the ants.

It is with regret that I present this photograph and damaging evidence, for it would be much pleasanter to say a wholly good word for the cheery-voiced Starling that adds so much to the interest of our rambles in town and country. Personally, I am quite willing to give the Starlings some pears in exchange for their entertainment, nor do we begrudge the few cherries that our native Robin eats every summer.

Mr. Clifford H. Pangburn has mentioned, in the expressions of opinion regarding the Starling printed in the last number of BIRD-LORE, that he has seen them eating decayed pples in winter; and Mr. James Chapin, referring to Mr. Heineken's published note, gives an account of the bird on Staten Island; but, to be strictly impartial, the pear-eating habit should be added in evidence.—WM. T. DAVIS, *New Brighton, Staten Island.*

A Contribution to the Subject of Bird Surgery

It is a well-known fact that at the close of the wild-fowl shooting season there are present a greater or less number of what sportsmen term 'cripples.' These are usually wing-broken birds which, deprived of the power of flight, are unable to join their more fortunate comrades in the return to a northern nesting-ground. Such birds are not known to breed, and, handicapped by the loss of flight, they generally fall prey to some enemy before the return of another shooting season.

The American Museum of Natural History has been presented with the humerus (reproduced herewith) of a Duck which met this fate. Attached to the bone is a label which reads: "Wing-bone of a Shell Drake, broken in December, 1891, at the head of River Pond by J. B. Payne of Smithtown, L. I. The bird escaped by crawling under a bog where he could not be reached. It was seen occasionally during the winter, and finally shot on March, 9, 1892, by A. W. Payne of Brooklyn, while in my company. The bird did not attempt to fly when found the last time. This is only to show what nature will do without the aid of surgery." (Signed) J. B. PAYNE.



HUMERUS OF A MERGANSER WHICH HAD BEEN BROKEN BY A SHOT.
A second shot may be seen embedded in the right end of the bone

"Nature," however, as will be seen from an examination of the specimen, made a very poor job of it. The growth of new bone is indeed remarkable, but, far from joining the ends of the fractured bone, it has forced them apart, rendering the wing useless, so far as flight is concerned.

The bone appears to be large for a Merganser, but without commenting on its size or the pathologic aspects of the case, I present it as an authentic instance in which a bird with a broken wing was evidently unable to set it. The usual fate of the crippled birds, referred to above,

their efforts to attract the birds around their homes. In the work in nature-study in the public schools of this city, the children have been encouraged to feed the birds in winter, and to provide nesting-boxes in the spring. But the almost universal report comes from the children that whatever they try to do for the birds proves of little avail on account of the interference of the English Sparrows. If food is put out, the Sparrows devour it and drive away the other birds; when nesting boxes are put up, the Sparrows occupy them at once; or, after other birds have begun to build



YOUNG HOUSE WREN JUST LEAVING A NEST WHICH HAS NOT BEEN MOLESTED BY THE ENGLISH SPARROW

leads to the conclusion that this is only one of many similar cases, and raises the inquiry if, as has been recently asserted, birds can and do set their leg-bones when broken, why do they not also employ their alleged surgical abilities in the repair of a far more important part of their anatomy? —FRANK M. CHAPMAN, *Englewood, N. J.*

The Fallacy of the Moving Bird-house

The English Sparrow has proven itself, in this locality, a quarrelsome, trouble-making nuisance, driving away our native birds and discouraging the children in

quarrel with the first inmates till they are driven away, so that the children are discouraged from making further efforts.

As this activity of the children in doing something for the birds is an important factor in the child's development, the author has sought for several years for some clue as to how the discouraging interference of the Sparrows might be avoided. Various devices in the method of constructing the bird-houses have been tried, but with no avail. Last year the author saw a suggestion which he hoped might prove successful, namely, that if the house were suspended the Sparrows would not

use it. In order to give this matter a fair test, the coöperation of the children was sought in those sections of the city where any native birds still remained. The matter was explained to the elder children of the schools, and they were asked to suspend their bird-houses by a spring or wire and to notice whether the English Sparrows interfered with them.

In the fall, statistics were obtained from the children concerning the results. Reports were received from 33 moving houses. In 26 of them birds began to nest, including 12 Bluebirds, 12 House Wrens, 3 Robins, 1 English Starling, and 6 English Sparrows. Of these six, two pairs reared their young, and others doubtless would have done so had they not been driven away by the children. Of the other twenty birds, only six reared their young. Of the fourteen that did not complete their nesting, six were driven away by the Sparrows. Of the six which did rear their young, three were attacked by the Sparrows, but were able to defend themselves successfully.

These experiences indicate that the moving house is a failure as a means of outwitting the English Sparrow. Indeed, much less difficulty was reported from the stationary houses. Out of 27 from which reports were received, birds began to build in 24 and successfully reared their young in 15, including 8 Bluebirds, 5 House Wrens, 1 Robin and 1 English Sparrow. Three pairs of Sparrows began to build, and three pairs of birds which had begun to nest were driven out by the Sparrows. As far as the author's own experience goes, the Sparrows seem to show a preference for the stationary house; but these reports indicate that the preference is a slight one, and that they quickly avail themselves of an opportunity to occupy a moving house if no others are near.

The majority of reports indicated that the Sparrows drove away the other birds simply from the generally quarrelsome nature of this troublesome nuisance, as, in most cases, the Sparrows did not remain to nest after driving out the first inmates.

In some instances, the Sparrow interfered with the House Wren, although the

openings were made so small that the Sparrows could not enter the house. They were reported as remaining near the box and worrying the Wrens as they were bringing nesting material, till the Wrens deserted the nest.

In all the author's experience, the English Sparrow has proven an unmitigated nuisance, and, apparently, the only effective way of getting rid of it is by use of the rifle or shotgun, although this method cannot, of course, be recommended to the children.

The only kind of nesting-box which the author has used, the inmates of which have never been troubled by the Sparrows, is one made of an old tomato can with a circle of wood, containing an inch hole, fitted into one end. The opening is so small and the house is so insignificant that, apparently, it seems beneath the notice of the Sparrow. A brood of Wrens has been reared in this for four successive seasons, and, during one summer, two broods were reared. Possibly, this might be a little safer from the attacks of the Sparrow if it were suspended by a wire.

Has any one found a successful method of outwitting the Sparrow other than killing it, which might be recommended to the use of the children?—GILBERT H. TRAFTON, *Supervisor of Nature Study, Passaic, N. J.*

Robins Nesting in Bird-houses

Five cases have been reported to the writer of the Robin's beginning to build in bird-houses, and one case of their successfully rearing their young. Three of these were in moving, and two in stationary houses. As these were the first cases of this kind to which the attention of the author had ever been called, he took special pains to investigate each case as much as could be done in the fall, and he was convinced that in two instances, at least, the reports had been correct. It will be worth while for students to experiment with houses containing openings large enough to allow the Robin to enter.—GILBERT H. TRAFTON, *Passaic, N. J.*

Book News and Reviews

FUERTE'S 'CALENDAR OF GAME BIRDS.'—While the printing of an artistically designed little statement of days and months on each of the large sheets (18 x 14 in.) to which Mr. Fuertes' beautiful drawings are attached, makes this publication a 'calendar,' it might better be known as an album or portfolio of paintings of birds in nature.

The species represented are the Canvasback, Willow Ptarmigan in winter and in summer, King Rail, Sandhill Crane, Ruffed Grouse, Wood Duck, Upland 'Plover,' Bob-white, Mallard, Wild Turkey and Wild Goose. Acknowledged to be America's leading ornithological portrait painter, Fuertes has here reached a higher plane than that in which his drawings show only the bird. In these drawings he has placed his bird in the landscape, and the result is not merely a portrait but a picture. Long after this 'calendar' has been forgotten, these admirably reproduced paintings will continue to appeal to the nature-lover, who will appreciate the spirit of the bird and season they so strongly convey, while the lover of the beautiful will be attracted by their artistic excellence. The Calendar may be obtained from its publishers, Moffat, Yard & Co., or from L. A. Fuertes, Ithaca, N. Y. The price, carriage paid, is \$3.50.—F. M. C.

FEATHERED GAME OF THE NORTH-EAST. By WALTER H. RICH. With illustrations by the Author. New York. Thomas Y. Crowell & Co., 8vo. xvi + 432 pages. Colored frontispiece. 82 full-page half-tones.

Practically all the Gallinæ, Limicolæ, Rallidæ and Anatidæ of northeastern United States are treated in this volume, and nearly every species is illustrated. While writing chiefly from the sportsman's point of view, the author shows a naturalist's interest in his subject, and much information is given concerning the habits of those birds whose misfortune

it is to be ranked as game. The book therefore admirably supplements those works which treat only of the land birds of the northeastern States.—F. M. C.

ALBUM DE AVES AMAZONICAS. ORGANISADO PELO PROFESSOR DR. EMILIO A. GOELDI. . . . Desenhos do Ernesto Lohse. Supplemento illustrativo A' Okra 'Aves do Brazil.' pelo Dr. Emilio A. Goeldi.

With the issue of the third part, this important work is concluded. Designed to illustrate Dr. Goeldi's 'Birds of Brazil,' this album is also issued separately. It contains, in all, 48 quarto plates and illustrates 420 species, in many instances, both sexes being figured. The birds are exceptionally well drawn and, as a rule, satisfactorily colored, and, notwithstanding the fact that from ten to fifteen species are often placed on a single plate, they are so tastefully grouped as to produce a pleasing effect. Dr. Goeldi should be congratulated on his choice of an artist. No other work contains so large a number of colored illustrations of South American birds. We have here then an adequate pictorial exposition of one of the most remarkable of avifaunæ. This series of plates framed would make a capital museum exhibit where funds were lacking to secure specimens of the birds themselves.

The 'Album' was projected while Dr. Goeldi was director of the Museum Goeldi at Para. Since his resignation Dr. Goeldi has resided in Berne, Switzerland, where he may be addressed for further information.—F. M. C.

ABSTRACT OF THE PROCEEDINGS OF THE LINNÆAN SOCIETY. Nos. 17-19, 1904-07. Containing a List of the Birds of Long Island, N. Y. By WILLIAM C. BRAISLIN, M.D.

From an average attendance of nineteen in 1903, the number has arisen to thirty-four for the year ending March 12, 1907, and the figures are indicative of the increased interest which has been shown in

the meetings of the Linnæan Society. Standing for the more popular phases of natural history, particularly for field studies of the local fauna, the Society is deserving of far greater support from local naturalists than it now receives.

Dr. Braislin's paper occupies pages 31-123, bringing together for the first time the information in regard to the occurrence of birds on Long Island which has been gathered, most of it, by Linnæan members, since the publication of Giraud's book in 1844. The number of species listed is 364; but, subtracting two extinct and three introduced species and 2 (*Actodramas cooperi* and *Egialitis meloda circumcincta*) that have no standing, we have 356 as the number of birds properly to be accredited to Long Island.

Dr. Braislin's list is authoritative; his annotations are to the point; references and exact migration dates are liberally given, and we wish he had also presented an analytical synopsis of the Long Island avifauna together with remarks on the confines of the faunal areas represented.—F. M. C.

RECENT PUBLICATIONS OF THE BUREAU OF THE BIOLOGICAL SURVEY OF THE UNITED STATES DEPARTMENT OF AGRICULTURE.

Each publication of the Biological Survey increases the indebtedness of ornithologists to this Bureau.

Sentiment is admirable in its place, but its place is assuredly not legislative halls, and, when the advocate of bird-protective measures appears before committees of Senate or Assembly, facts, not esthetics, win him a hearing.

The increasing number of facts in regard to the economic value of birds, gathered by trained specialists who are acknowledged authorities in their particular branches, which the Biological Survey is each year making accessible, form the most effective arguments which can be presented when urging the birds' claims to our attention.

Among the recent economic publications of the Survey, each one of which, through distribution or republication,

should have the widest possible circulation, are: Circular No. 56, 'Value of Swallows as Insect Destroyers,' by H. W. Henshaw; Circular No. 57, 'Birds Useful in the War Against the Cotton-Boll Weevil,' by H. W. Henshaw; Bulletin No. 29, 'The Relation of Birds to the Cotton-Boll Weevil,' by Arthur H. Howell; and 'Birds that Eat Scale Insects' (reprint from Yearbook of Department of Agriculture for 1906), by W. L. McAtee.

The Survey has also published a report, by Henry Oldys, on 'Cage-Birds Traffic of the United States', in which it appears that the once large traffic in American birds for 'pets' has been suppressed, and that for the year ending June 30, 1906, we imported 322,297 cage-birds, of which 274,914 were Canaries and 47,383 various species, chiefly of wild birds.

The Survey's Department of Game Preservation, under the efficient care of Dr. T. S. Palmer, continues its good offices in unifying the work of game protectors by the publication of the following papers: Bulletin No. 28, 'Game Commissions and Wardens, Their Appointment, Powers and Duties,' by R. W. Williams, Jr., a book of nearly 300 pages; Farmers' Bulletin No. 308, 'Game Laws for 1907,' by T. S. Palmer, Henry Oldys and Chas. E. Brewster; a tabular chart showing the 'Close Seasons for Game in the United States and Canada,' by T. S. Palmer and Henry Oldys; Circular No. 62, 'Directory of Officials and Organizations Concerned with the Protection of Birds and Game, 1907,' by T. S. Palmer; from the Yearbook for 1906, 'The Game Warden of Today,' by R. W. Williams, Jr.; and 'Game Protection in 1906,' by T. S. Palmer.—F. M. C.

VERMONT BIRD CLUB, BULLETIN No. 2, Burlington, Vt., July, 1907-8vo., 35 pages.

The first and most important paper in this Annual Bulletin is by Mrs. E. B. Davenport, on the 'Birds of Windham and Bennington Counties.' An introduction conveys a clear impression of the leading physiographic and botanic features of the region, and is followed by a briefly annotated list of 176 species. This

list is based on long-continued observation, and has evidently been prepared with a thoroughness which will make it a guide for future workers as well as of unusual reference value.

Mr. Carlton D. Howe's 'Problems of the Vermont Bird Club' may be profitably read by others who have similar problems at heart. G. H. Ross describes the 'Nesting of the Winter Wren.' An excellent paper by Miss Isabel M. Paddock, in whose untimely death not only the Vermont Club but the science of ornithology has suffered a severe loss, is entitled 'Our Thrushes and Their Songs,' and is accompanied by musical notations.

Abstracts of other papers are 'Notes from a Bird Table,' by Marion Boll; 'A Warbler Guest,' by Emily L. and Susan E. Clark; 'Some Bird Acquaintances,' by Emma E. Drew. There is a report of the New England Federation of Natural History Clubs, by Miss Delia I. Griffin, of the Club's Field Meetings, and there are Bird Notes from various sources.—F. M. C.

MASSACHUSETTS AUDUBON SOCIETY'S CALENDAR FOR 1908.—The Massachusetts Audubon Society has reissued the plates which appeared in its Calendars for 1906 and 1907 in two Calendars for 1908. Each contains six plates; one illustrates the Pine Grosbeak, Saw-whet Owl, Catbird, Yellow-billed Cuckoo, Kingfisher, and Blue Jay, the other, the Black-throated Blue Warbler, Canadian Warbler, Northern Yellowthroat Ovenbird, Blackpoll and Myrtle Warbler.

The plates were printed in Japan from blocks made expressly for this purpose, and are tastefully mounted on cards $9\frac{3}{4} \times 14\frac{1}{4}$ inches, with descriptive text on the back.

The price of each Calendar is \$1.50, and orders should be sent to the Society at the Boston Society of Natural History.

The Ornithological Magazines

THE AUK.—A great bird catastrophe is recorded in the opening pages of the October 'Auk' by Dr. Thos. S. Roberts. A host of Lapland Longspurs overtaken,

while migrating, by a wet snowstorm on the night of March 13-14, 1904, perished in countless thousands in Minnesota and Iowa over an area approximating 1,500 square miles. The accompanying photographs of lake and lawn surfaces attest the magnitude of the tragedy, and yet, in spite of the destruction in a single night of a million or so birds of a single species, and this just before the breeding season, no perceptible diminution in their numbers has been observed. Truly, the bad man who collects birds may take heart!

A continuation of E. S. Cameron's paper on 'The Birds of Custer and Dawson Counties, Montana,' is accompanied as usual by several fine photographs; J. F. Ferry has 'Further Notes from Extreme Southern Illinois'; and A. T. Wayne offers 'Observations on Some Birds Procured near Charleston, S. C.' Mr. H. E. Bigelow describes in detail the plumage of four hybrid Mallards and Dr. W. Faxon and Mr. H. G. Higbee have each a word to say about recent specimens of the supposed hybrid, Brewster's Warbler.

The 'Summer Birds of Southwestern Saskatchewan' is an illustrated tale of the plains, by A. C. Bent,—and one well worth the telling; for the day may not be far distant when man, his cat, and the House Sparrow will have ousted from this region all species save those that can adapt themselves to the new conditions of civilization. With a minimum of shelter and concentrated breeding areas, it is not surprising that the bird population moves out when human population moves in.

The progress of Ridgway's, 'Birds of North and Middle America' is shown by a review of the fourth volume, and there is an obituary of Dr. Wm. L. Ralph, curator of the egg collection in the United States National Museum, who died July 8, 1907.

The latest rules in the game of names, as adopted at the Seventh International Zoölogical Congress, will be found at page 464. Everybody has always insisted on playing the game according to his own rules, and now a loud howl of

opposition may be expected from the estimated 10 per cent of dissenters who cannot square their scientific consciences with the heresies proposed in the new 'Article 30.'—J. D., Jr.

Book News

To the evergrowing list of defunct nature magazines must be added the name of 'Birds and Nature,' one of the best known and oldest publications of this class. In May last, the first number of a new series was issued in a form showing a marked improvement over earlier volumes, but evidently sufficient support was not received to warrant the issue of further numbers.

The 'Bleating' or 'Drumming' of Snipe (*Gallinago*) is the subject of an exhaustive paper by P. H. Bahr, in the Proceedings of the Zoölogical Society (1907, pp. 12-35). Mr. Bahr's experiments appear to prove that the sound is produced by the passage through the air of the outer feather on each side of the tail which, his observations of *Gallinago calestis* show, are spread forward beyond the remaining tail-feathers when the bird is bleating. The paper should be read by those who propose to investigate this subject.

Dr. T. S. Roberts contributes to 'A Pioneer History of Becker County, Minnesota' (Pioneer Press, St. Paul, Minn.) a compiled list of the birds of the county, numbering 262 species. Its annotations make it of value to the student of the birds of the region in question. An article on the 'Disappearing Birds and Game-birds of Becker County,' by D. W. Meeker, is included in the same volume.

Magazines which are taking an active part in the 'nature-fakir' campaign should make doubly sure that their own columns are free from errors of statement, the result of carelessness or inexcusable ignorance. For example, the magazine in which President Roosevelt has, with characteristic force, denounced those nature-writers who present fiction for fact, contains an article entitled 'The Mystery

of Bird-flight' in which we are informed with due authoritativeness that the Emu "flies, when at all, with the greatest difficulty"!

In the September issue of the Massachusetts 'Crop Report,' Mr. E. H. Forbush, under the title 'Statutory Bird Protection in Massachusetts,' reviews the history of bird laws in Massachusetts from 1632 to the present time, and adds suggestions for "needed legislation," in which he urges the abolition of spring and summer shooting, the issuance of a resident hunting license, the prohibition of the sale of game birds, the granting to wardens of the right of search, and the establishment of sanctuaries or reservations.

In the October, 1907, issue of 'The Museum News,' published by the Brooklyn Institute of Arts and Sciences, Mr. George Cherrie, of the Museum, gives an account of his visit to the caves of the Guacharo (*Steatornis caripensis*) in the mountains of Trinidad, which is not only a capital story of field experience, but adds considerably to our knowledge of the habits of this remarkable bird.

In addition to articles of local interest, 'British Birds' contains papers of a general character which may be read with profit by all ornithologists. In the November issue, for example, we find the third part of W. P. Pycraft's suggestive study of 'Nesting Birds, and Some of the Problems They Present' and also the third part of F. W. Headley's article on 'Wind and Flight.'

Witherby & Co., 326 High Holborn, London, W. C., have issued a prospectus of 'A Monograph of the Petrels' by F. Du Cane Godman. The work will be a large quarto, issued in five parts, the first of which will be ready in December, 1907. It will contain 105 hand-colored plates by Keulemans and is offered at the subscription price of £2, 5s per part, or £10, 10s for the complete work.

The Bulletin of the Charleston Museum (Vol. III, No. 6, Oct. 1907) contains a section devoted to the local fauna, in which are various ornithological notes of interest.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush is Worth Two in the Hand

THE twenty-fifth Annual Congress of the American Ornithologists' Union will be held at the Academy of Natural Sciences in Philadelphia, on December 10-12. Those of us who remember the first meetings of the Union realize with difficulty that its life extends over a quarter of the century in which distinctively American Ornithology may be said to have existed.

In the Historical Preface to his 'Key to North American Birds' (1884), Coues divided the portion of this century which had then elapsed into Wilsonian, Audubonian, and Bairdian epochs. Assuredly, the succeeding epoch should be known as the Epoch of the American Ornithologists' Union.

The present widespread interest in the study of birds in this country may be largely attributed to the influence exerted by the Union, and every bird student should consider it a privilege to be connected with an organization to which he is so deeply indebted. Membership in the associate class is open to every American ornithologist, and applicants for admission may learn all needful details from Dr. J. Dwight, Jr., treasurer of the Union, 134 West Seventy-first Street, New York City.

DR. FIELD'S article on the Heath Hen, published in this number of BIRD LORE, emphasizes the largely haphazard manner in which the habits of North American birds have been studied. In spite of the

fact that the Heath Hen is a species of unusual interest and is on the verge of extinction, no one appears to have attempted to make a special study of its life-history until Dr. Field visited it in its home, which, by the way, is not a thousand miles from one of the centers of greatest ornithological activity in this country. Dr. Field's description of the notes of the strutting Heath Hen apparently shows that this eastern bird differs from the western Prairie Hen more in voice than in plumage. In the western bird the 'boom' is a strongly accentuated *boom-ah-boom* given with much apparent muscular effort, the head being jerked violently as the syllables are uttered.

WITH this issue we publish the first of a series of colored plates of North American Flycatchers. The series will doubtless be completed in the next volume of BIRD-LORE, and it is essential that we decide at an early date on the next family to be figured. A call for an expression of opinion on this subject issued in the last number of BIRD-LORE leaves the matter in doubt, and we shall be glad to receive additional suggestions.

NO ONE can glance through the annual report of the National Association of Audubon Societies and its allied Societies without being impressed by the scope and importance of its work. In addition to its legislative, protective and educational activities, the Association has inaugurated investigations of purely ornithological interest. We call attention, for example, to the report on the birds of Bird Key in the Dry Tortugas by Dr. Watson. The Association is to be congratulated that, while acting as its warden, Dr. Watson made the first adequate study of the life of a bird community, from the opening to the close of the nesting season. For three months he lived day and night with the subjects of his researches, and we are assured that the results of his labors, which will be published by the Carnegie Institution, will add much to our knowledge of bird-life.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

FOR DECEMBER—SIX REMINDERS

(1) Be sure that there is a heap of brush or corn-stalks somewhere about the place. If you live near cedar woods, cut half a dozen small trees and fasten them securely against a fence or shed on the south side.

If you have a pile of logs or kettle-wood at hand, thatch it loosely with either corn-stalks, hemlock or cedar boughs,—then you will have the Winter Wren and half a dozen other birds as permanent lodgers. Many perching birds in winter prefer to roost upon something broad and flat, where they can huddle and squat rather than perch.

(2) Be sure that your trays or tree-boxes for holding bird-food are perforated at the bottom, so that moisture can get through and not freeze. The boarders will find their meals chilly enough without having them literally put in cold storage.

(3) Be sure to vary the food, and when possible grind up some meat scraps in your meat-chopper and mix it with the cracked corn and dog-biscuit on very cold days and after a storm. At these times of peril, some freshly boiled potatoes or rice (the usual salt being omitted) will be much appreciated.

(4) Be sure to set a pan of water in a sunny spot every day, no matter how cold the weather is; there will be at least an hour when the birds will be able to drink.

(5) If you have undertaken to feed game birds either in natural or artificial cover that is at some distance from your house, be sure that it is done regularly. A little experience will tell you how long the rations will last. If, as I hope, you have a feeding-box for the smaller birds near the school-house, always remember to provide an extra supply of food there on Friday, so that Sunday need not be a fast, instead of a feast day.

(6) Be sure to begin the New Year by keeping an outdoor diary if you have never done it before,—the best memory is treacherous. A simple book with three days to a page will suffice. Do not write long descriptions, as these are awkward for reference. Jot down the names of birds or other objects seen, the kind of weather and any other incidents as briefly as possible. Then, when you open the book later on, the details will group themselves about this framework of accuracy.—M. O. W.

THE HERRING OR HARBOR GULL

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 29

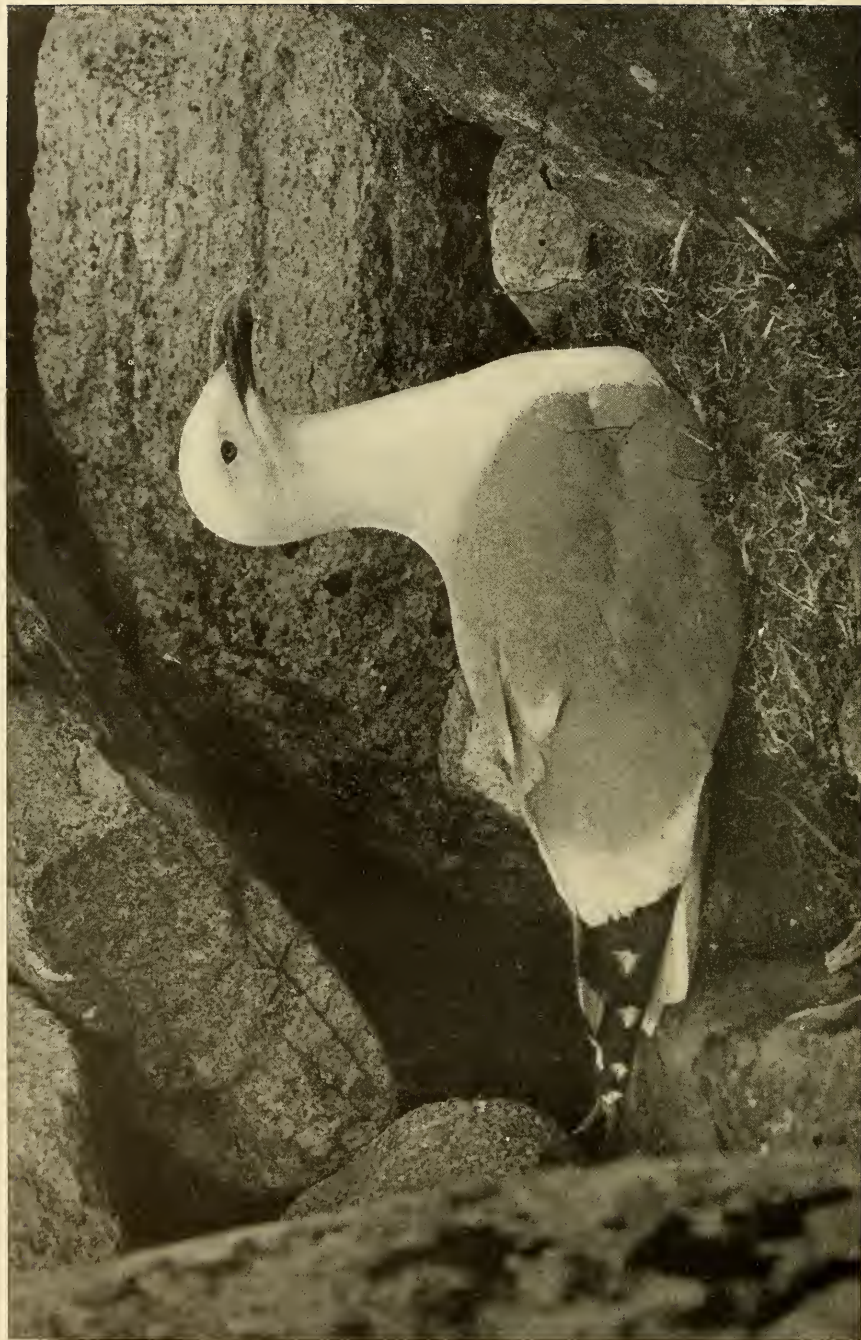
The Sandpipers have ended their pretty courtesies, and no longer patter to and fro upon the beaches and river edges. The flocking Swallows have finished their fall manœuvres and left the marshes, and the Wild Goose arrows no more fleck the sky. But white wings are bending over the crested waves, and the clamor of call-notes comes from bar and shore,—the high-pitched cry of the Harbor Gull.

The Gull's Season If there is any one kind that deserves the title of our National Water Bird it is this Harbor Gull, for it is to be found in the Northern Hemisphere wherever there is a sufficient body of water to yield it food. For the three or four months of the year that are its breeding season, it may be seen only northward from Maine, the Great Lakes, Minnesota and British Columbia, and in the northern parts of the Old World; but for the rest of the year the Harbor Gulls travel southward as far as Cuba on the east, and lower California on the west; and, in Europe, southward to the Mediterranean; in great flocks or only small groups stopping to winter as regularly in certain haunts as the migrant song-birds return in spring to their old nesting-places.

His Journeys The Harbor Gull, like some of its land brothers, has two changes of plumage in the year. The full-grown bird in summer wears a beautiful pearl-gray cloak, with black and white markings on the wings, all the under plumage being of the purest silver white, of dazzling brilliancy. The bill runs straight out from the head and is strongly hooked at the end, while the four-toed feet are webbed, and fit the bird for resting on the water and swimming with all the ease of a Duck, though without its swiftness. In winter plumage, the old bird's head is streaked with gray and brown, while the young bird of the year is generally grayish brown, streaked and spotted on the upper parts, the breast and belly being marked with rusty brown and gray, in the combination seen in some of our Hawks.

The Gull's Plumage The name Herring Gull was given to this bird beforetime, because, as they were originally fishermen by trade, their presence flying above the water told where schools of herring were to be found.

Today the schools of herring are less plentiful along our shores, and the value of this Gull, though greater than ever, is due to a different source. Coming familiarly about the harbors of great cities, frequenting the beaches after the summer throngs of pleasure-seekers have left, the Gulls become the health-officers of the coast, gleaning not



HERRING OR HARBOR GULL
From a photograph made by William Dutcher in the protected colony on Duck Island, Maine

only the refuse of shore and vessel but of cities as well, when the sea-going garbage scows disgorge their loads

Nature never creates a useless type, and even so wise a man as our scientific and far-seeing Dr. Oliver Wendell Holmes was mistaken when he wrote of this bird,

“Such is our Gull; a gentleman of leisure,
 Less fleshed than feathered;—bagged you’ll find him such;
 His virtue, silence; his employment, pleasure;
 Not bad to look at, and not good for much.”

This verse is doubly surprising when you realize that our medical poet must have daily seen the Gulls at work as scavengers in the nearby Charles river. It is another warning about careful seeing, for to overlook an important point is as misleading as to get the habit of seeing what you would like to see in nature, rather than what is there.

Of the thousands of people that see this Gull as a winter bird, comparatively few know of its home life during the season when it has left us and the first breath of warm weather drives the Gulls northward.

As a Gull’s chief food is gleaned from the sea, it must nest as close as possible to its source of supply. You can easily see that so large a bird could never be free from annoyance on our bathing beaches or off-shore islands that are used as summer resorts; so, as people flocked to the shore, more and more, the places where Gulls might nest in comfort grew fewer and fewer, and they were driven to the remote islands like those off the Maine coast, Great Duck Island, No-Man’s-Land, and others, and it is at Great Duck Island that is to be found the largest colony of Gulls within the United States.

But even here and on many lesser islands, with only lighthouses and their keepers for company, where there were no summer cottages or pleasure-seekers, until a few years ago, the Gulls were not safe, for they, like the White Herons of the South, were bonnet-martyrs. These beautiful white breast-feathers were made into feather turbans. Perhaps, on one side of these, a smaller cousin of the Gull, the Tern, or Sea Swallow, with its coral-red beak, would be perched by way of finish. Or else, soft bands made of the breast, and some of the handsomest wing-quills were used for trimming.

Not only were these feathers sold wholesale to the plume merchants and milliners, but people who went to the coast resorts would buy them of the sailors simply because they were pretty, without giving a thought to the lives they cost, or of how desolate and lonely the shores would be when there were no more Gulls.

They are very sociable birds at all times of the year, keeping in colonies even in the breeding season, a time when song- and other land-birds pair, and prefer to be alone. Trees are sometimes used for nesting but the ground is the usual place. The nests, when on the ground or upon flat rocks, are built

of grass, mosses, seaweed, and bits of soft driftwood formed into a shallow bowl. If the edges of this crumble or flatten while the birds are sitting, they use bunches of fresh grass or seaweed to keep it in repair, with the result that the nest is not only a very tasteful object, but it blends perfectly with its surroundings.

The eggs are very interesting because no two are of the same color, being of every shade of blue and gray, from the color of summer sky and sand to the tint of the many-colored, water-soaked rocks themselves. The markings

**The Gull's
Eggs**

vary also in shape and size, and are in every shade of brown, through lilac and purple, to black. The parents are very devoted to their nests, and take turns in sitting. When the young are first

hatched, though covered with down, they are very weak in the neck and helpless; but in the course of a few hours the little Gulls are strong enough to walk, and the instinct to hide at the approach of anything strange comes to them very suddenly, so that a Gull only three or four hours old will slip out of the nest, and either hide beneath a few grass blades or flatten itself in the sand,

**The Young
Gull**

where, owing to its spotted, color-protective down, it is almost invisible, so well does Nature care for her children—provided that man does not interfere. When a Gull nests in a tree, how-

ever, the little birds, not feeling the same necessity for hiding, do not try to leave the nest until the growth of their wings will let them fly.

On the sea beaches, squids and marine refuse are fed to the young Gulls, but where they have nested near fresh, instead of salt, water many insects gleaned from the fields are eaten.

It was in the Gulls' nesting season that the plunderers chose to go to their island haunts, steal the eggs, and kill the parent birds, whose devotion, like that of the White Heron, left old the birds at the mercy of the plume hunters.



GULLS FOLLOWING GARBAGE SCOW IN NEW YORK HARBOR

At the end of summer, the young, wearing their speckled suits, are able to join the old in flocks, and it is then that they scatter along the coast, some going from the northern borders down to the Great Lakes. In and about New York City, they are one of the features of the winter scenery; as they fly to and fro under the arches of the great bridge, and follow the ships the entire length of the harbor, and out to sea. At night, they bed down so close together that in places they make a continuous line of feathers on the waters of the reservoirs and in the sheltered coves of the Hudson. From the banks of Riverside Park, any autumn or winter afternoon, so long as the channel is free from ice, they may be seen flying about as fearless as a flock of domestic Pigeons.

**The Gull in
the Winter**

Hear what Mr. Forbush has to say of these birds of the sea-mist and spray: "The true Gull of the sea, the spirit of the salt, is a sort of feathered bell-buoy and thus is of use to the sailors, as there is ample testimony to prove.

"In summer, in thick weather, the appearance of Gulls and Terns in numbers, or the sound of their clamorous voices, give warning to the mariner that he is near the rocks on which they breed. Shore fishermen, enshrouded in fog, can tell the direction of the islands on which the birds live by watching their undeviating flight homeward with food for their young. The keen senses of sea-birds enable them to head direct for their nests, even in dense mist.

"Navigators, approaching, their home ports during the seasons of bird migration, welcome the appearance of familiar birds from the land. . . .

"Sea-birds must be reckoned among the chief agencies which have made many rocky or sandy islands fit for human habitation. The service performed by birds in fertilizing, soil-building, and seed-sowing on many barren islands, entitles our feathered friends to the gratitude of many a shipwrecked sailor, who must else have lost his life on barren, storm-beaten shores."

**Gulls and
Sailors**

Questions for Teachers and Students

At what season do Gulls visit your vicinity? What kind of Gulls do you find? Where do they pass the summer? What is the difference in color between the adult Harbor Gull and that of the young, born the preceding summer? What is the range of the Harbor Gull? How are Gulls of value to man? Why were Gulls destroyed? How do Gulls nest? Describe the appearance and actions of young Gulls. Of what use are Gulls to sailors?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions, to the National Association of Audubon Societies, 141 Broadway, New York City

DIRECTORY OF THE STATE AUDUBON SOCIETIES

With names and addresses of their Secretaries

California	W. SCOTT WAY, Box 62, Glendora.
Colorado	MRS. MARTHA A. SHUTE, Capitol Building, Denver.
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Delaware	MRS. WM. S. HILLES, Delamore Place, Wilmington.
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Louisiana	MISS ANITA PRING, 1682 Peters Ave., New Orleans.
Maine	ARTHUR H. NORTON, 22 Elm St., Portland.
Maryland	MISS MINNA D. STARR, 2400 N. Charles St., Baltimore.
Massachusetts	MISS JESSIE E. KIMBALL, care Boston Society of Natural History, Boston.
Michigan	JEFFERSON BUTLER, 411 Moffat Block, Detroit.
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Missouri	AUGUST REESE, 2516 North Fourteenth street, St. Louis.
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Pennsylvania	MISS ELIZABETH WILSON FISHER, Room 22, 524 Walnut St., Philadelphia.
Western Pennsylvania	G. B. MASON, Edgewood Park.
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Virginia	E. C. HOUGH, Falls Church.
Washington	H. RIEF, 48 Maynard Building, Seattle.
Wisconsin	MRS. REUBEN G. THWAITES, 260 Langdon street, Madison.
Wyoming	MRS. CORDELIA CHIVINGTON, Loveland.

Annual Meeting of the National Association

The third annual meeting of the National Association of Audubon Societies was held October 29, in the American Museum of Natural History, New York City. Members were present from Massachusetts, Connecticut, New York, New Jersey and North Carolina.

The treasurer's report showed that the income of the Society during the year had been \$17,978.53 and that the expenditures were \$26,843.43, making a deficit of \$8,864.90. This condition arose from

the fact that legislative expenses were very heavy during the past year, and it was also necessary to help several of the State Societies to carry on their local work. Further, the Society received only six months' interest on its endowment fund, as none of the investments of the Society were made early enough in the year to permit it to receive a full year's interest.

The Society now holds mortgages amounting to \$316,000 on six pieces of New York City property. Each title is guaranteed by a Title Guarantee Company. None of the loans exceeds two-thirds of the appraised value; the said

values being certified to by the most conservative and well-known appraisers in New York City. All of the loans pay 5 per cent interest and are non-taxable.

The President gave a synopsis of what had been accomplished during the year 1907, and outlined some of the plans for 1908. For details of his report, together with the reports of the State Audubon Societies and other matters of interest, readers are referred to the complete report which follows in this number of BIRD-LORE. After December 15, members of the Association can receive separates of the annual report and financial statement on application at the office, 141 Broadway, New York City.

The following Directors were elected to serve for a period of five years, being the class of 1912: Mr. F. M. Chapman, New York; Mr. Witmer Stone, Pennsylvania; Dr. Hermon C. Bumpus, New York; Mr. Frederic A. Lucas, Brooklyn; Mr. Carlton D. Howe, Vermont.

A resolution approving the work of the United States Bureau of Biological Survey, and calling upon Congress to amplify the work of the said Bureau, was unanimously passed, and it was further resolved that the secretary send a copy of the resolutions to every member of the next Congress.

Subsequently a meeting of the Directors of the Society was held, when the following officers were elected to serve for one year: President, William Dutcher; First Vice-president, John E. Thayer; Second Vice-president, Dr. T. S. Palmer; Secretary, T. Gilbert Pearson; Treasurer, Frank M. Chapman. Mr. Samuel T. Carter, Jr., was reappointed counsel for the Society.

The President appointed the following Standing Committees: Executive Committee—Dr. J. A. Allen, Dr. George Bird Grinnell, Mr. F. A. Lucas, Mr. F. M. Chapman.

Finance Committee—Dr. Hermon C. Bumpus, Mr. John E. Thayer, Mrs. C. Grant LaFarge, Mr. F. M. Chapman.—T. GILBERT PEARSON, *Secretary*.

The Protection of the Heath Hen

Dr. Field, whose article on the Heath Hen in this number of BIRD-LORE will be read with interest, reports that in addition to practical and most valuable assistance by J. E. Howland, Captain B. C. Cromwell, and many others, contributions for the purchase of land for a reservation on Martha's Vineyard have been pledged as follows:

William Brewster.....	\$100
F. S. Pearson.....	100
G. B. Clark.....	100
John E. Thayer.....	100
H. H. Fay.....	100
S. M. Weld.....	100
Frank E. Peabody.....	100
L. D. Baker.....	100
Arthur F. Whitin.....	108
Judge F. C. Lowell.....	100
Dr. John C. Phillips.....	100
R. C. Robbins.....	100
Gardner M. Lane.....	100
Dr. B. H. Kidder.....	100
Hon. Herbert Parker....	100
Anawan Club.....	50
R. L. Agassiz.....	50
Hon. A. P. Gardner.....	25
Dr. Gorham Bacon.....	100
Harriet E. Freeman....	5
Middlesex Sportsman's Association.....	200
National Audubon Society .	100

For Making Fire Stops—

Town of Tisbury (at last annual town meeting) .	250
Town of W. Tisbury (at last annual town meet- ing).....	50
	<hr/>
	\$2,338

Inasmuch as under these conditions every dollar contributed for the purchase of land adds at least one acre, it is hoped that sufficient funds may be raised to secure extensive tracts as refuges for the Heath Hen, Least Tern, Upland Plover and other birds which still resort to this island.

Contributions may be forwarded to the Commissioners on Fisheries and Game, State House, Boston.



ROYAL TERNS, BATTLEDORE ISLAND, LA. ONE RESULT OF AUDUBON WORK IN LOUISIANA

Annual Report of the National Association of Audubon Societies for 1907

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REPORT OF THE PRESIDENT

By WILLIAM DUTCHER

INTRODUCTORY

MEMBERS OF THE NATIONAL ASSOCIATION: Stevenson says: "It is a golden maxim to cultivate the garden for the nose, and the eyes will take care of themselves. Nor must the ear be forgotten; without birds, a garden is a prison-yard."

I take it that the province of your President is to present to you annually a concise statement of what the Association has done to prevent this country from becoming a vast prison-yard through lack of birds.

The Association is now in a strong and vigorous condition, and is well equipped to conduct an aggressive and progressive campaign for wild-bird and animal protection through the several channels of work which it has followed since its organization. This does not mean that it has reached the place that it intends to occupy in the world of economics and philanthropy, but it has made such a splendid beginning that those interested in this Society have every cause to con-

gratulate themselves on the position we now occupy. We are no longer an experiment, but are a dominating factor in good civics. With an endowment, safely invested, of nearly one-third of a million dollars, we have no fear for the future. I do not wish this train of thought to mislead our members or the public, for we are not yet endowed sufficiently, and we have but a very small part of the membership that we should have in order to do our best work. We have the experience and the equipment, and could largely increase our results did our own means allow expansion. The membership of the National Association still remains under 1,000, notwithstanding the strong efforts that have been made to increase it. The cause we advocate is so closely connected with the agricultural and forestry interests of the country that it is one of the most important now before the public. When we try to realize the enormous sum that is lost to the country through insect and rodent pests, which the Government experts tell us amounts to \$800,000,000 annually, we are lost in wonder at the apathy of the public. If a million or more dollars are lost through the mismanagement of a bank or other fiduciary institution, it creates a wave of protest throughout the entire country; yet a yearly loss equal to the entire capitalization of the national banks of the country creates no comment whatever, simply because the public do not realize what is going on. How to excite an interest in this important matter is the function of this body, and to do it successfully we need more money and a largely increased membership. In this connection, it is proper to mention a misapprehension that has arisen in the minds of some persons, notably among some of our oldest and heretofore most liberal contributors. They evidently believe that, as the Association has an endowment, there is no need for further funds with which to carry on the work. There certainly cannot be a more mistaken idea than this. As a matter of fact, as the Society grows older and more widely known, the demands upon it become daily more exacting and its opportunities for doing good increase far more rapidly than its resources. Our outlay during the past year was some thousands of dollars more than our income, but the demands upon us were of such vital importance that they could not be overlooked. Had we not responded, the cause of bird protection would have suffered a setback which would take years to overcome.

Right here is the proper time to emphasize the need for a far larger field staff: many parts of the country that need educational work cannot be touched, owing to the inability of this Association to set aside the necessary funds to employ additional expert aid.

We have reached the extreme limit possible until our income is largely increased. Here is an opportunity for some of the wealthy philanthropists of the country to place some of their riches where it will be doing the greatest amount of good.

To what object could a person contribute where the results for good would be greater?

We stand for the rights of our fellow citizens, the wild birds and animals, and demand just and uniform laws for their protection, and also their rigid enforcement.

We stand for the principle of non-political appointments in the office of Game Commissioner, and recommend that such offices shall be filled by scientific experts who alone are capable of securing the best and most lasting results.

We stand for civil service in the appointment of game wardens; they should pass a satisfactory examination showing fitness for the position, and should be continued in office during good behavior.

We emphatically stand for the abolition of spring shooting of any kind, on the ground that the practice is wasteful and is the reason for the rapid decrease of many species of birds.

We recommend very short open seasons for hunting and a small bag limit. We urge that, when satisfactory scientific evidence is presented that any species of game bird is in danger of extermination, laws be enacted making a close season for the said species, in order that recuperation may take place.

We urge the passage of laws providing for gun licenses, in order to curtail as much as possible hunting by irresponsible persons, and also to provide ready means of identification of hunters who violate bird and game laws or commit trespass on posted lands.

We also urge such laws for the purpose of providing funds for protection and propagation of game, and to render unnecessary the levying of taxes for such objects.

We urge the passage of laws prohibiting the cold storage of game of any kind.

We urge Federal protection for all migratory birds, for the reason that it is practically impossible to secure uniform State laws in time to prevent the disappearance of several species of birds that are now known to be on the verge of extinction.

We urge the enlargement of the Biological Survey, on the ground that the statistics and information relative to birds and animals furnished by this Bureau of the Department of Agriculture is absolutely necessary for the farmers of the country. The educational work of this Association would be seriously handicapped were the scientific investigations of the Biological Survey to cease. This Association has no criticism to offer regarding the amount of public funds expended for the protection of the country against possible foreign attacks, but it believes that a more liberal appropriation for the Biological Survey would be a wise investment. The meager sum now appropriated annually, some \$60,000, is exactly the amount which it costs to manufacture one 12-inch, 45 caliber, nickel-steel gun. The cost of firing this gun one time is \$220 for powder and \$190 for a battle shell. The \$60,000 expended for the Biological Survey furnishes information regarding the economic value of birds which saves millions of dollars annually to agriculture and forestry. We, therefore, respectfully but emphatically

urge an increased appropriation for the Survey, in order that it may more rapidly continue its important work.

RESULTS ACHIEVED IN 1907

Special Agents.—It is always a difficult matter to place in concrete form successes achieved in a given time by a moral movement, as many of them are in some degree intangible. However, so much actual progress has been made during the past year that it will be hard in the future to keep up the same ratio of progress. The greatest gain of the year has been the enlargement of the field staff of the Association. Before the present year, our able and earnest Secretary, Mr. Pearson, did a large part of the organization work; in fact, almost his entire time was occupied this way. It cannot be questioned that the very best results are to be obtained by the employment of trained men and women to carry to the public the propaganda of wild-bird and animal protection. It is absolutely necessary that the organizer should have a good knowledge of birds and animals, especially in respect to their economic relations to the human race; moreover, he or she must be an enthusiast whose whole mind and powers are engrossed in devotion to the Society and its work. Such qualities are hard to find, but we know that this Association has found them, or the results secured by the field staff would not have been as great as they are. A brief review is in order:

Mr. Pearson, in addition to the valuable work he did in his home state, North Carolina, where he is the moving spirit of the Audubon Society, conducted an exploration along the coasts of South Carolina and Georgia, securing much needed information regarding the birds of that section. He secured the passage of an act in the legislature of South Carolina conferring upon the Audubon Society the powers and duties of a Game Commission; he conducted an investigation with a view of suppressing cage-bird traffic in its last stronghold; he visited a number of Audubon Societies in the western states, giving them encouragement and advice, while on a trip to the Yellowstone Park in Wyoming, where he attended one of the most important meetings held during the year—the biennial session of the National Association of State Game Wardens and Commissioners. It is of vital importance that this Association have the closest affiliation with all state game officials, as the objects sought by each are identical. He did excellent and valuable service in behalf of the Biological Survey at the last session of Congress, and, finally, was instrumental in securing the passage of resolutions at the International Conference of Cotton Growers, in Atlanta, Ga., demanding the protection of wild birds, and calling on Congress to continue the Biological Survey with increased appropriations, in order that it may more rapidly determine the economic relations of wild birds to agriculture.

Mr. Edward Howe Forbush, ornithologist of the Massachusetts Board of Agriculture, and now in charge of Audubon interests in the New England States for this Association, accomplished results of splendid proportions. He

was instrumental in securing legislation in New Hampshire, Massachusetts and Connecticut of the most advanced character; the legislative work in the last-named state continuing over a period of five months. He gave a series of educational lectures, reaching hundreds of people, many of them teachers. He contributed to the literature of bird protection two of the most important and valuable ornithological publications that have ever been presented to the public, both of which will exert a great influence. He did yeoman service in behalf of the Biological Survey, and has pushed Audubon work to the fore in his territory by aggressive and progressive methods.

Mr. Henry H. Kopman, one of the leading ornithologists of the Gulf states, who commenced his services for this Association May 15 last, has accomplished in a very short period results of great importance. He conducted a bird survey on the Louisiana coast, west of the Mississippi delta, with results already presented in *BIRD-LORE*, which paved the way for two additional reservations. He has lectured before hundreds of planters in Mississippi at farmers' institutes, showing the importance of bird protection. He is now engaged in organizing a Mississippi State Audubon Society, with every prospect of forming a strong and influential body of the best citizens of the state. He has prepared and is widely circulating a large amount of valuable educational matter, among the most important of which is a series of papers regarding the value of birds, which is appearing in the press of his section; and, finally, he is preparing an exhibit of Audubon methods and literature for the Mississippi State Fair, which will be seen by thousands of citizens and cannot fail to exert a great and far-reaching good.

Mr. William L. Finley, the well-known bird student and photographer of the Northwest, has given us a small portion of his time during which he has exerted a valuable influence in his section. He has contributed largely to the press in Oregon and Washington, and has delivered many illustrated lectures on bird subjects. He was instrumental in preventing the repeal of the Model Law in Oregon. He aided very largely in the organization of the Washington Audubon Society, and also gave a series of lectures under the auspices of the Association before the Audubon Societies in Michigan, Indiana, Illinois, Missouri, and Minnesota. His illustrated magazine articles on bird life attract widespread attention and lead to a greater interest in the live bird and its home life.

Miss Mary T. Moore, of North Carolina, who has lately joined the field staff of this Association, has been conducting a series of farmers' meetings in her home state, which cannot help but raise the standard of intelligent appreciation of the value of birds. The work she is doing is not merely economic, but is of value in the homes of the people, as it reaches the fireside and interests the mothers and children, thus attracting them to nature and her beauties.

The foregoing represents a part of what was accomplished by the field-staff during the past year, but there is no way to tell you in words of the beneficent influence which is rapidly growing wherever the staff has worked.

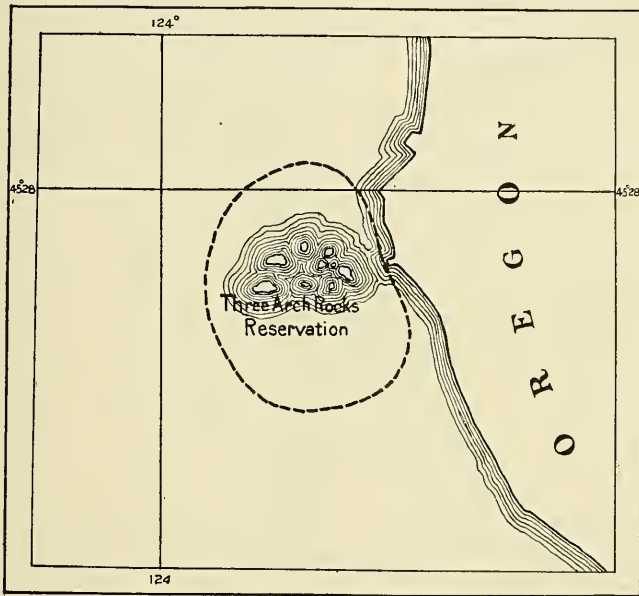
THREE ARCH ROCKS RESERVATIONS

For Protection of Native Birds

OREGON—Embracing all small islands off the Oregon coast segregated by broken line and designated "Three Arch Rocks Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 14, 1907

**Executive Order**

It is hereby ordered that the group of small unsurveyed islands known as the "Three Arch Rocks," located in the Pacific Ocean from one-half mile to one mile off the coast of Oregon, approximately in latitude $45^{\circ} 28'$ north, 124° west from Greenwich, as shown upon the United States Coast Survey Chart No. 6100, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, is hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds and animals. This reservation to be known as Three Arch Rocks Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
October 14, 1907

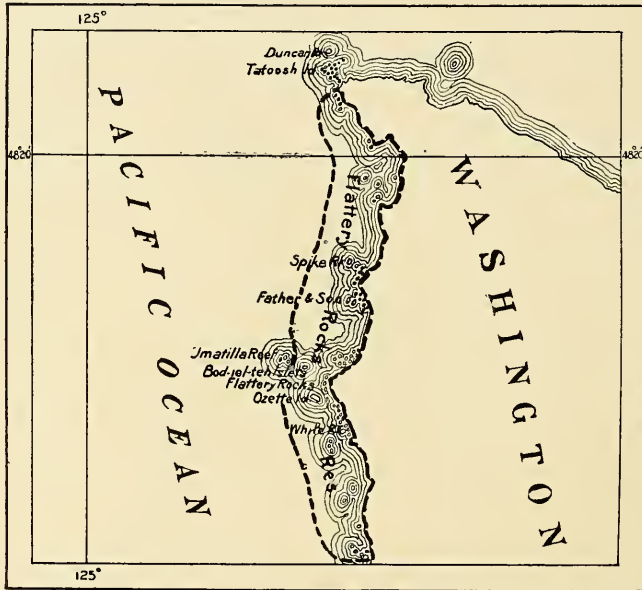
FLATTERY ROCKS RESERVATION

For Protection of Native Birds

WASHINGTON—Embracing all small islands off the Washington coast segregated by broken line and designated "Flattery Rocks Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 23, 1907



Executive Order

It is hereby ordered that all small, unsurveyed and unreserved islands lying off the coast of the State of Washington in the Pacific Ocean, between latitudes $48^{\circ} 02'$ North and $48^{\circ} 23'$ North, among which are those named and commonly known as Spike Rock, Father and Son, Bodiel-teh Islets, Flattery Rocks, Ozette Island and White Rock, as the same are shown upon coast survey chart No. 6400, or upon the General Land Office map of the State of Washington, dated 1887, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture, as a preserve and breeding ground for native birds and animals. This reservation to be known as Flattery Rocks Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
October 23, 1907

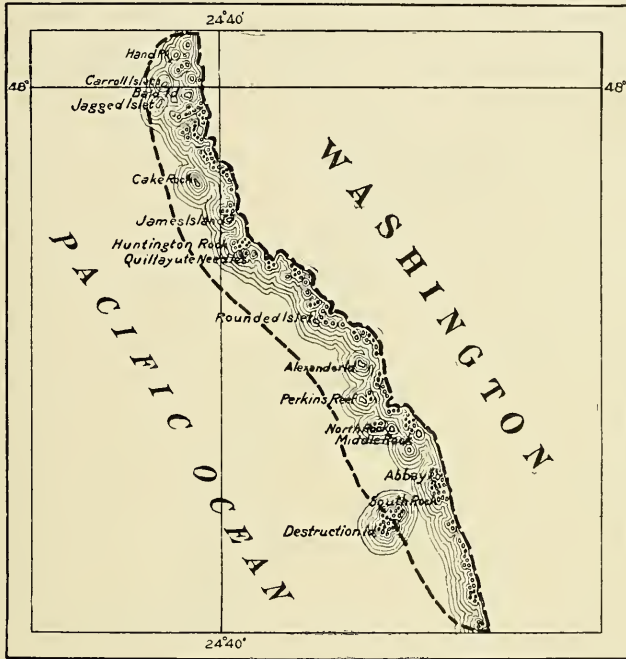
QUILLAYUTE NEEDLES RESERVATION

For Protection of Native Birds

WASHINGTON—Embracing all small islands off the Washington coast segregated by broken line and designated "Quillayute Needles Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 23, 1907



Executive Order

It is hereby ordered that all small, unsurveyed and unreserved islands lying off the coast of the State of Washington in the Pacific Ocean, between latitude $47^{\circ} 38'$ North, and $48^{\circ} 02'$ North, among which are those named and commonly known as Hand Rock, Carroll Islets, Bald Island, Jagged Islet, Cake Rock, James Island, Huntington Rock, Quillayute Needles, Rounded Islet, Alexander Island, Perkins Reef, North Rock, Middle Rock, Abbey Island and South Rock, as the same are shown upon coast survey chart No. 6400, or upon the General Land Office map of the State of Washington, dated 1887, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds and animals. This reservation to be known as Quillayute Needles Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
October 23, 1907

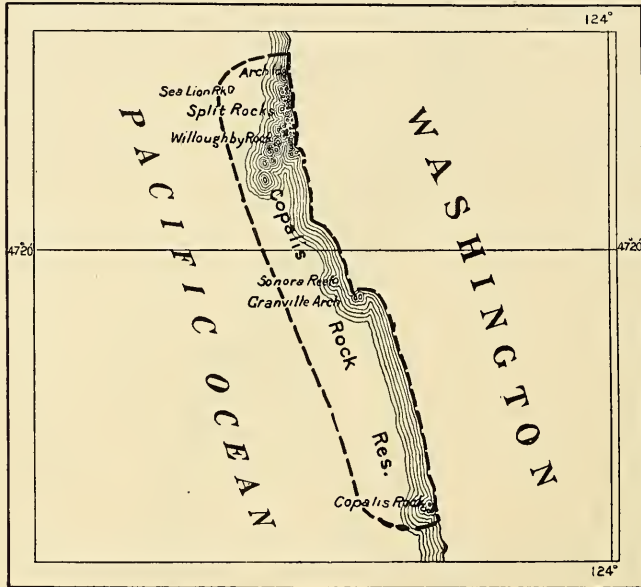
COPALIS ROCK RESERVATION

For Protection of Native Birds

WASHINGTON—Embracing all small islands off the Washington coast segregated by broken line and designated "Copalis Rock Reservation"

Department of the Interior, General Land Office, Richard A. Ballinger, Commissioner

Diagram attached to and made a part of the Executive Order dated October 27, 1907



Executive Order

It is hereby ordered that all small, unsurveyed islands lying off the coast of the State of Washington in the Pacific Ocean, between latitudes 47° 8' North, and 47° 29' North, among which are those named and commonly known as Arch Island, Sea Lion Rock, Willoughby Rock, Split Rocks, Sonora Reef, Greenville Arch and Copalis Rock, as the same are shown upon coast survey chart No. 6400 or upon the General Land Office map of the State of Washington, dated 1887, and located within the area segregated by a broken line and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds and animals. This reservation to be known as Copalis Rock Reservation.

THEODORE ROOSEVELT

THE WHITE HOUSE,
October 23, 1907

Reservations.—One of the most important results secured by this Association since its organization has been the large number of reservations set aside as bird refuges and breeding homes by President Roosevelt. During the present year, six have been added, all of which are the ancestral homes of birds, and they will, in the future, be under the direct supervision of the United States Department of Agriculture. It is our function to investigate and discover bird-breeding islands, rocks and keys; the locality and number and species of birds is reported to the Department of the Interior, at Washington, and, if the property still belongs to the Federal Government, an order is prepared for the signature of the Chief Executive. This Society then selects a suitable person to act as a guard, who is recommended for appointment as warden. He is then officially commissioned by the Department of Agriculture at a nominal salary, which is supplemented by additional compensation from this Association. Two of the new reservations, 'Tern Islands' and 'Shell Keys' in Louisiana, have already been reported in 'BIRD-LORE' for September-October 1907, and the four additional ones are now recorded. One is located on the Oregon coast and is known as 'Three Arch Rocks Reservation,' the order for which was signed October 14, 1907. A detailed report of the bird inhabitants of this reservation may be found in BIRD-LORE, Vol. VII, 1905, pp. 103-106.

Mr. W. Leon Dawson, the President of the Washington State Audubon Society, who is a careful as well as enthusiastic bird student, spent the summers of 1906 and 1907 in a survey of the bird life on the islands and rocky islets off the coast of Washington. These all lie close to the mainland, and are of no agricultural or commercial value. They are, however, the homes of thousands and thousands of sea-birds and a few small groups of sea-lions. On one island alone Dr. Dawson estimated there were 40,000 Kaeding Petrels. This report was the basis for three new bird and animal refuges, to be known as 'Copalis Rock Reservation,' 'Quillayute Needles Reservation,' 'Flattery Rocks Reservation,' the orders for which were signed October 23, 1907.

The plan of bird and animal refuges is destined to be a great factor in the future in the preservation of the wild life of the country. However good the laws are and however well they may be enforced, killing will go on, and there should therefore be refuges established in all parts of the country where shooting is absolutely prohibited. It is astonishing how soon birds and animals learn to know where they are undisturbed, and how little fear of man they display within such bounds. The reservations we are securing are the beginning of the plan of refuges, but the Federal Government owns no land in any of the thirteen original states, nor does it own any in Texas. In these fourteen states, the proposed system of refuges can be secured only by purchase, or by a legislative act.

It is very much to the credit of the authorities in Pennsylvania that the game-refuge plan has been adopted. The authorities of New York should adopt the plan at once, and establish a large number of bird and game refuges in the Adirondack and Catskill Parks. The setting aside of land for a refuge does not

necessarily mean that it cannot be occupied by man, it simply means that when a bird or animal reaches these sacred precincts its life is safe.

The refuge plan must necessarily in the future be largely by purchase or lease or donation from individuals or societies. The Louisiana Audubon Society has been very active in this work, and now owns or leases a large number of islands.

During the past year, the North Carolina Audubon Society has acquired some sandy islands on the coast, which are noted bird resorts. On one of them is located the largest colony of Least Terns that exists in the United States. The La Rue Holmes Nature Lovers' League has raised a considerable sum of money for the purpose of buying a large tract of suitable marsh land in New Jersey, which is to be dedicated as a bird refuge. The state of Massachusetts has, during the present year, acquired a tract of 2,000 acres on Martha's Vineyard for a refuge, especially for the purpose of preventing the total extinction of the Heath Hen. Individuals are adopting the idea, and are making their estates bird and animal refuges; this is specially the case in California and in Indiana.

Thousands of memorial dollars are contributed annually to educational or philanthropic institutions. We suggest that a beautiful and appropriate memorial would be an island or tract of land dedicated in perpetuity as a bird refuge in charge of this Association. It would be a lasting and fitting monument.

Warden Work.—The importance of this branch of effort of the National Association is hardly realized by the public. Had it not been for the faithful guardians who have cared for the colonies of sea-birds on the coasts and inland waters of the country, many of the species of birds that we now have strong colonies of would have been exterminated. This is easily proven; take for instance the Terns and Gulls. A habit implanted in all species of birds centuries since impels them annually to journey to an ancestral breeding home for the purpose of reproducing their kind. If they are undisturbed, enough young are raised to offset the decrease, caused by old age, epidemics, cold storms, high tides, lack of food and predatory birds and mammals, and a species is maintained at a high degree of strength and efficiency. If, on the contrary, the birds are prevented from breeding for one season alone, the species is weakened, and, if this is continued, it will, necessarily, finally become exterminated, because not enough new birds are produced to keep up the stock. Our warden system is for the purpose of allowing the birds to breed undisturbed, and the loyalty and efficiency of the men in our employ is the reason why our coasts and inland waters are slowly but surely being repopulated with sea-birds, some species of which were dangerously near the point of disappearance. Even with all the care exercised in the past few years to prevent such a misfortune, there is grave doubt whether it will be possible to restore at least two species that were formerly common, viz., the Least and Gull-billed Terns.

During the breeding season of 1907, all of the colonies cared for did well, and some of them had a specially favorable season. Each warden is required

to make preliminary reports of the conditions at his station during the season, and a final report or summary at the close of the breeding period, or when the young birds are all awing. Very often we are fortunate enough to have some member of the Association, who is a trained ornithologist, make a tour of inspection. This year the coast of Maine and a part of the Virginia coast were visited, and the reports are appended. In addition, Professor Watson of Chicago, a biologist, took charge of the bird colonies at the Dry Tortugas, Florida, and his very interesting report is given in full.

There were the usual number of excessive tides, when thousands of eggs or young birds were swept away; but such natural tragedies are to be expected. If we can prevent interference by man, the balance established by nature will be maintained. From every station, the wardens report that the birds are becoming more tame and fearless of man, and this statement is often verified by letters to the Association from members or persons who have noticed the change. Further, when the birds are permitted to breed undisturbed, the first clutch of eggs is hatched, and the young birds mature early in the season, and are much stronger and more able to care for themselves when the migration period is reached than birds that are hatched late in the season. To detail the reports of each warden would take far more space than can be allowed, but from them it is safe to say that during the past season many, many thousands of sea-birds were raised.



UNCLE MARK YOUNG, FAITHFUL WARDEN, NO-MAN'S-LAND ISLAND, MAINE
Largest colony of Herring Gulls in the United States. They are known as Uncle Mark's pets

Educational Work.—This branch of the work of the Association has been very largely extended during the past twelve months, and is daily becoming a more important factor in the advancement of the cause of bird protection. Since our last report, the Association has issued six new Educational Leaflets, viz., 'The Killdeer,' 'The Bluebird,' 'The Red-winged Blackbird,' 'The Baltimore Oriole,' 'The Indigo Bunting,' 'The Purple Finch,' and, in addition, the following special leaflets: 'In February,' 'In April,' 'In June,' 'The Wood Duck,' 'August and the Flocking Time,' 'October and Preparations for Winter.'

In the past year, we have printed 608,050 leaflets of the various issues, which have been circulated in all parts of the country. This means that 2,320,450 pages of accurate information regarding the life-histories and food-habits of birds and their economic relations to mankind have been spread broadcast among the people, especially the school children. In addition, we have circulated 15,440 reports, 266,047 colored plates of birds, and 244,000 outlines of birds for children to color.

The good results of this distribution cannot be for a moment doubted. We see them on every hand in an increased interest in the live bird and the willingness of the public press to advocate bird protection. The following quotation from a recent letter from Professor Minear of Texas very clearly shows the appreciation of an educator in the bird literature we supply: "In connection with the garden work of the public schools of this city, I am endeavoring to protect the birds of this section. I believe I can save many hundreds, if not thousands, by the use of the leaflets which are being sent out by the Audubon Society. I have about 300 leaflets on the Robin, Meadowlark, Nighthawk or 'Bull-bat,' and Mourning Dove, which are being distributed, and I find the boys are astonished as to the good birds do the farmers. I wish to continue this good work, and would appreciate any number of leaflets you could spare me. I have eleven hundred boys in the garden and would like to reach them all if possible. This work means much to the farming interest of our state."

Our own short experience proves conclusively that children never fail to respond to our teaching about birds, and therefore it is our duty to expand as rapidly as possible this branch of our work. This is not a new idea, for Coleridge says:

"That strain again!
 "Full fain it would delay me! My dear babe,
 "Who, capable of no articulate sound,
 "Mars all things with his imitative lisp,
 "How he would place his hand beside his ear,
 "His little hand, the small fore-finger up,
 "And bid us listen! And I deem it wise
 "To make him nature's playmate—
 " — — — — And, if that Heaven
 "Should give me life, his childhood shall grow up
 "Familiar with these songs."

Among the many beautiful thoughts left us by Bishop Brooks, there is one which is so pertinent in this connection that it is quoted for encouragement: "It means something that, in the disorder of thought and feeling, so many men are fleeing to the study of ordinary nature. And it is rest and comfort. Whatever men are feeling, the seasons come and go. Whatever men are doubting, the rock is firm under their feet, and the steadfast stars pass in their certain courses overhead. Men who dare count on nothing else may still count on the tree's blossoming and the grape's coloring. It is good for a man perplexed and lost among many thoughts to come into closer intercourse with Nature, and to learn her ways and to catch her spirit. It is no fancy to believe that if the children of this generation are taught a great deal more than we used to be taught of nature, and the ways of God in nature, they will be provided with the material for far healthier, happier, and less perplexed and anxious lives than most of us are living."

State Societies.—The reports of the thirty-three State Societies presented beyond speak for themselves, and, in this connection, your President cannot too strongly emphasize the importance of the work of these organizations which, familiar with local conditions, can act as circumstances require far more sympathetically and effectively than could a foreign body.

Women's Clubs.—There are few countries where nature has been more prolific and generous with beautiful birds and interesting animals than in the United States. It is a sad fact that the citizens of the country have not all realized their blessings in this respect, and have wasted what nature has so generously provided. Many of the wild birds of the country have been ruthlessly slaughtered to ornament the head-gear of women. Many organizations of women in the country are taking an active stand against the cruel practice of killing birds for millinery ornaments, and I believe that it is the patriotic duty of every woman in the land to join in the great civic movement to preserve the wild life of the country. Surely the love of country embraces within its meaning a love for its natural beauties.

The following resolution is being circulated by the General Federation of Women's Clubs, and is exerting a powerful influence in the right direction. This Association recommends its adoption by every woman, whether she is a member of a club or is simply an individual:

WHEREAS: The beautiful white Herons are rapidly diminishing, with a likelihood of their becoming extinct, and

WHEREAS: The demand for aigrettes for millinery purposes is responsible for the slaughter of these feathered innocents and the consequent death of the nestlings, therefore

Resolved: That I pledge myself not to wear any such Badge of Cruelty as the aigrette, or the plumage of any wild bird, and that I will use all possible influence to restrain others from doing so.

Big Game.—This Association lately took its first step in big game preservation by bearing a part of the expenses in the trial of two poachers for the

illegal killing of Elk. The defendants were convicted and sentenced to imprisonment for three months and to pay costs amounting to \$933. When they have served their terms, they will have been in jail fourteen months, besides having all the elk hides, horns and teeth in their possession confiscated. This case will have a very far-reaching effect, especially in the Jackson's Hole region in Wyoming, and, in fact, in the entire Northwest. Our Vice-president, Dr. Palmer, is now perfecting plans for extending our work of big game protection.

Before closing this imperfect report of the activities of the year, it is my duty as well as my pleasure to bear witness to the willing and loyal service rendered by the officers and active workers in the state organizations. So long as such a spirit is dominant, there can be no fear that the cause of wild birds and animal protection will not go steadily forward.—WILLIAM DUTCHER, *President*.

REPORT OF T. GILBERT PEARSON, SECRETARY

General Remarks.—The past year has been a busy one in the southern office of the National Association of Audubon Societies located in Greensboro, N. C. The correspondence in all parts of the southern states has greatly increased and a large amount of literature, copies of game laws, and cloth warning notices have been distributed. In addition to this, the secretary has done an unusually large amount of field work. Early in June, a vessel was fitted out at Morehead City, N. C., for an exploring expedition southward along the coast as far as Florida. The object of the cruise was to locate the breeding colonies of sea-birds in this territory and secure wardens to guard them. The most interesting discovery was that of a colony containing about five hundred birds of that rare species, the Least Tern. This was located on the South Carolina coast about ten miles from Cape Romain. More than two thousand Brown Pelicans were also found on this coast. The vessel was out about thirty-one days.

Legislative work has claimed the secretary's attention in North Carolina, South Carolina and Georgia, and he appeared before legislative committees in these three states.

Much time has been spent in travel and work in South Carolina, to assist in getting that state's Audubon Society on its feet. It is now fully organized, having been incorporated by the Legislature with all the power of a state game commission, and with good officers at its head.

A number of cities in South Carolina and Georgia have been visited in the interest of the suppression of the traffic in song-birds, and, as a result, a number of dealers have discontinued their work. Some other interesting discoveries were made, which will be published in due time.

More than two dozen public lectures have been given by the secretary during the year. He also represented the National Association at a number of gatherings, particularly the meeting of the League of American Sportsmen in Norfolk, Va.; the meeting of the International Conference of Cotton Manufacturers

and Growers, Atlanta, Ga.; and the biennial session of the National Association of State Game Wardens and Commissioners, in the Yellowstone National Park, Wyoming.

At these meetings, he introduced and secured the passage of strong resolutions endorsing the work of the United States Biological Survey, as follows:

WHEREAS: The Bureau of Biological Survey, United States Department of Agriculture, has been engaged for many years in studying the habits and distribution of wild birds and mammals for the purpose of determining their economic value to the agriculturist, and

WHEREAS: It has been discovered by the said Bureau of Biological Survey that many of our non-game and song-birds and certain of our mammals are most valuable assistants in destroying worms and other insects injurious to growing crops, fruit and forest trees, and the bulletins of this subject issued from time to time by the Bureau are a practical and valuable aid to farmers and planters, and

WHEREAS: The Bureau of Biological Survey has investigated the relations of birds to the boll-weevil in Texas and other cotton-growing states, and has issued several publications on the subject, naming the species that destroy the weevil and giving information as to their habits, with practical suggestions for increasing their numbers, and

WHEREAS: The work of game preservation by this Bureau has resulted in a more general uniformity of state laws relating to open seasons, licenses and other details, while the enforcement of the Federal statute known as the Lacy Law has resulted in a more general observance of state laws regulating the export of game-birds and animals, and

WHEREAS: All of this work is of direct and positive benefit to the cotton-grower, therefore;—

Be it Resolved: That this Association recognizes fully the value of the work of the Bureau of Biological Survey, and most respectfully petitions the national Congress at its forthcoming session to make a sufficient appropriation for the support of this Bureau to enable it to continue and broaden its work along the lines indicated; and be it further resolved:—That a copy of this resolution be furnished by our Secretary to every Senator and Representative in Congress from the cotton-growing states.

Visits with the officers of the state Audubon Societies have been made, and more or less work has been accomplished in Georgia, South Carolina, Ohio, Missouri and Colorado. A number of trips, in executing the preliminary work for legislative enactment, have been made to Virginia.

Miss Mary T. Moore has, during the year, been added to the office force as school secretary. During the summer months she lectured before twenty-four farmers' institutes, and since then has been busy with correspondence and supplying the school-teachers in North Carolina and Virginia with leaflets of the Association.

Meeting of Game Commissioners.—Your Secretary attended the fourth biennial meeting of the National Association of State Game and Fish Wardens and Commissioners which was held at Fort Yellowstone, Yellowstone National Park, August 9 and 10. The members met at Mammoth Hot Spring Hotel on August 8, and the same day called in a body to pay their respects to General S. B. Young, Superintendent of the Park, by whose invitation the Association was holding

its meeting there. The sessions of the convention were presided over by President W. F. Scott, State Game Warden of Montana; Chas. A. Voglesang, of California, acting as secretary. In the course of General Young's hearty address of welcome, many exceedingly interesting statements were made regarding the increase of game in the park. For instance, we learned that about sixty-five head of Buffalo are still preserved. About one-half of these are kept in a corral near Gardner. The remaining ones are still running in a wild state in the Pigeon Creek country, near Yellowstone Lake. The increase of these herds is not rapid, one reason being the fact that the males increase much more rapidly than the females. About 25,000 Elk are now believed to be in the Park, and the number is continually augmented by additional bands which come in from the surrounding states to escape prosecution of the hunters, many of whom desire to kill these fine game animals simply for the teeth. Antelopes are on the increase, as are also Mountain Sheep. Mule Deer are today very abundant, and may be seen almost everywhere while passing through the Park.

Following the remarks of General Young, Colonel Anderson, former acting superintendent of the Park, was introduced. His address was one of the most valuable and interesting of the entire convention. His experience in endeavoring to preserve the game and repress poachers dated from the time of his appointment in 1881, and his early struggles on behalf of the game of the park were listened to like tales of romance.

Dr. T. S. Palmer, of Washington, D. C., spoke on 'Novel Features of Recent Game Legislation,' giving, in connection with this, a most valuable summary of all the game legislation in the United States in the past year, as well as throwing out many valuable suggestions regarding needed laws in different states. The commissioners from one state after another followed, and told of the bird and game conditions in the territory over which their jurisdiction extended. It is interesting to note that many of these gentlemen gave the National Association of Audubon Societies and the officers of the state organizations very decided credit for battles which had been won in their states for bird and game protection.

The work of the Audubon Society in influencing legislation, particularly the past year in saving the non-game bird law in Oregon; helping preserve the remnant of the Game Commission in Missouri; the splendid work done in Connecticut with the establishment of the license law and other important features; the creating of the Game Commission in Alabama, and the securing of full control of the game protection work in South Carolina, were some of the matters which were discussed in detail before the convention. The Audubon Society is today an enormous factor in game legislation in America, and the cooperation of the Audubon Societies and the State Game Commissioners throughout the union is a most fortunate and valuable combination, and these two forces should work hand in hand continually with tremendous and far-reaching results for good. Among the most entertaining speakers of the convention were David E. Farr of Colorado, L. T. Carleton of Maine, Dr. Geo. W. Field and John

Delano of Massachusetts, Geo. W. Clark of Illinois, Carlos Avery of Minnesota and William N. Stephens of Idaho. An important feature of the convention was the presence and addresses of seven National Forest Rangers. E. A. Sherman, Chief Inspector of the National Forest for the district of Montana, northern Idaho and Wyoming, in a most interesting manner enlarged on the work of forest preservation and the relationship between this valuable subject and game protection.

New officers were elected for the Association as follows: President, William F. Scott, Helena, Montana; First Vice-president, T. G. Pearson, Greensboro, N. C.; Second Vice-president, L. T. Carleton, Augusta, Me.; Secretary, Chas. A. Voglesang, San Francisco, Cal.; Treasurer, Carlos Avery, St. Paul, Minn.; General Council, Joseph Acklen, Nashville, Tenn.; Directors, John W. Delano, Marion, Mass.; David E. Farr, Denver, Col.

After the adjournment of the convention, the commissioners proceeded on a five-day tour in the Yellowstone National Park, where many facilities were afforded them for seeing not only the wild life but the natural phenomena of this wonderful, world-renowned region.—T. GILBERT PEARSON, *Secretary*.

REPORTS OF SPECIAL AGENTS

REPORT OF EDWARD HOWE FORBUSH

My work with the National Association began in January with the introduction of two bills into the Massachusetts legislature. One of these was drawn to protect the larger Gulls at all times, and the other to prohibit all spring shooting of Wild Ducks. While these bills were pending, Congress refused the appropriation for the Bureau of Biological Survey of the United States Department of Agriculture, and it became necessary at once to concentrate all effort on the attempt to make more widely known the importance of the work of the Survey.

From January 15 to June 1, my time was given mainly to legislative work in Connecticut, Massachusetts and New Hampshire. This work was almost uniformly successful, as all the measures advocated were enacted, with the exception of the anti-spring shooting bill in Massachusetts. All proposed bills inimical to bird protection were defeated. The bill to protect the Gulls was enacted largely through the efforts of Dr. Geo. W. Field, chairman of the Commission on Fisheries and Game. I followed through all their stages a bill to protect Loons and Eagles, and another, introduced by the Fall River Natural History Society, to protect the more useful Owls and Hawks. A bill requiring non-residents hunting within the state to procure a \$10 license was also advocated and supported through all its stages.

The bill to authorize the Commission on Fisheries and Game to take land on the Island of Martha's Vineyard, to be used in conserving and propagating the nearly extinct Heath Hen, met with considerable opposition in the Ways

and Means Committee, and was delayed until late in the session; but the Chairman of the Fish and Game Commission, together with Mr. William Brewster, president of the Massachusetts Audubon Society, and many other friends of the bill, came handsomely to its support, and a redraft was finally passed. The commissioners have now taken, by gift or otherwise, about two thousand acres of land, and are protecting this vanishing game-bird in its last stronghold, where they intend if possible to propagate it, so that it may, in time, take the place it formerly occupied in the Atlantic coast states.

The campaign in Connecticut was long and tedious, occupying more than five months, but was finally successful in every respect. The forces which for so many years had been able to keep open a spring-shooting season for wild fowl, snipe and shore birds, were defeated and demoralized for the time being, and all shooting of these birds is now prohibited in Connecticut from January 1 to September 1. The enactment of this law was finally followed by that of another requiring the registration of all hunters. This is the greatest gain ever made by the bird protectionists in Connecticut, for it provides money in the shape of license fees to be used for the enforcement of the game and bird laws, which were formerly little respected in many parts of the state. Another law, which was strongly advocated and passed, prohibits the sale of upland game-birds for a period of years. The Connecticut legislation was upheld by the Audubon Society, by many enlightened sportsmen and intelligent farmers, and opposed mainly by market hunters and others who care nothing about the extermination of the birds provided they get their share of the birds or the money which is expended in hunting them.

My work in New Hampshire was mainly devoted to the support of a so-called omnibus bill for the protection of fish, birds and game, and bills for protecting the Wood Duck, Upland Plover and Killdeer at all times for a series of years. Mrs. Arthur E. Clarke, of Manchester, president of the New Hampshire Audubon Society, exerted a most potent influence for the passage of this legislation, and she was ably seconded by the secretary, Mrs. F. W. Batchelder. These ladies fully exemplify the power that officers of the Audubon Societies possess. Great credit is due to Chairman Nathaniel Wentworth of the Fish and Game Commission, for his work in shaping legislation. During this legislative work, I have been impressed with the fact that each member of this Association and each member of the State Societies is capable of exerting a considerable influence toward the enactment of good laws, and a large part of my work has consisted of getting acquainted with those who are interested in bird protection, and showing them how they can best use their influence.

Twenty-two lectures were given from January to June before state normal school teachers, farmers' associations and legislators in the three states. Most of these talks were illustrated by stereopticon, and recent reports show that they have led people, especially children, to feed birds, put up bird-houses and otherwise care for birds and study them. From June to October, fully

half my time has been occupied with other duties than those connected with the work of the Association. The time given to its work has been utilized largely in organizing people interested in the protection of birds in New England, and in soliciting members for the National and State Associations. In August, a series of five illustrated lectures on birds in their relation to the farmer was given at the Massachusetts Agricultural College at Amherst before students in the large and successful summer school of agriculture. This course proved one of the most popular of the year. The students were mainly teachers and others connected with school or college instruction, and the attendance at these lectures included nearly the entire school.

The bird laws enacted in Massachusetts since the first settlement of the colony have been studied, and a bulletin entitled 'Statutory Bird Protection in Massachusetts' has been prepared and printed by the Massachusetts State Board of Agriculture for free distribution among farmers and others, in anticipation of a movement for better legislation. Copies may be had by application to Secretary, J. Lewis Ellsworth, State Board of Agriculture, State House, Boston, Mass.

As the first edition of 'Useful Birds and their Protection' was practically exhausted within three weeks of its issue, a bill authorizing a second edition was introduced into the legislature and passed. The second edition is now in press, and copies may be obtained of Secretary Ellsworth when issued. I have prepared also an illustrated article on the relations of birds to agriculture for Prof. L. H. Bailey's *Cyclopedia of Agriculture*, now in press.—EDWARD HOWE FORBUSH.

REPORT OF H. H. KOPMAN

The work undertaken by your present special agent since his first connection with your Association last May has included three principal lines of activities, viz., a cruise along the Louisiana coast west of the Mississippi river, covering the period from May 15 to June 21, attendance on farmers' institutes in Mississippi, for the purpose of addressing farmers on the importance of bird protection, and covering the period from July 15, to September 6; and publicity work in Mississippi, with Jackson as a base of operations, having as its object the organization of a Mississippi State Audubon Society. As this report is being drafted, preliminary steps are under way for making an Audubon exhibit at the Mississippi State Fair, at Jackson, November 5-16.

The cruise along the Louisiana coast was made in the schooner 'Sea-bird,' of Pass Christian, Miss., owned by Captain William Sprinkle and sailed by Captain Frank Couvillier and Mate O. C. Colson, of Morgan City, La. The breeding colonies found on this trip were: Shell Keys, off Marsh island, at the entrance to Vermilion Bay, the nesting-home of about two thousand Royal Terns, and the resting-place of Brown Pelicans and Man-o'-War birds; that portion of Last island west of 'Caroline's Cut,' where about 6,000 Black Skim-

mers were found breeding; East Timbalier, the breeding-place of about 4,500 Black Skimmers, 5,500 Laughing Gulls and 1,750 Louisiana Herons, as well as about six pairs of Snowy Herons; the 'Mud Lumps' islands off North Pass, Pass à L'Outre, Northeast Pass and Southwest Pass, Mississippi river. These 'mud lumps,' together with the Shell Keys, have since been set aside as national reservations. Important feeding stations were found also at Calcasieu Pass, at Trinity Bay, Last island, at Wine island, on the Shell islands in Barataria Bay, at Barataria Light (Ft. Livingston), and at Shell island, Bastian Bay. The principal species observed were Laughing Gulls, Royal Terns, Black Skimmers and Brown Pelicans. Caspian Terns and the greatest number of Forster's Terns were seen on the mud lumps off Northeast Pass. Least Terns were seen at several points, but none were found breeding; similarly with White Pelicans. The number of brown Pelicans breeding and reared on the mud lumps off Southwest Pass was estimated at 7,500.

Your agent made talks to farmers at twenty-five points in Mississippi, in the counties of Lincoln, Copiah, Amite, Pike, Newton, Scott, Leake, Neshoba, Kemper, Yalobusha, Grenada and Tallahatchie. The number of farmers reached in this way was probably about five hundred. In addition, a talk was made before about two hundred farmers at the 'Round-Up' Institute at Agricultural College (Starkville), September 4-6. The subject of this, as well as of the other talks, was 'The Necessity of Feathered Help in Agriculture.' Actual specimens were shown in all cases, and much interest was manifested at the 'Round-Up' and at a number of other institutes.

About one thousand copies of the poster, 'Save the Birds,' have been sent out to Mississippi post-offices; and this work will be continued until all the post-offices in the state are supplied, and the circulation will probably be extended to railway stations, hotels, etc. Two hundred copies of a circular letter calling on the people to help in the organization of a Mississippi Audubon Society have been sent to Mississippi newspapers, while some of the circulars have been posted.

Your agent wishes to express his appreciation of courtesies extended him by state officials in Mississippi, and especially by Prof. E. R. Lloyd, Director of Farmers' Institutes, and Hon. H. E. Blakeslee, Commissioner of Agriculture. The latter has kindly invited your agent to make his headquarters in the Commissioner's office, and, in consequence, our literature is on file at this office, while your agent spends a considerable part of his time there. Our literature is also to be had from the Secretary of State, and the Superintendent of Education.—H. H. KOPMAN.

REPORT OF WILLIAM L. FINLEY

During the past few years, there has been considerable change in economic conditions in Oregon and Washington. Great stretches of land have been cleared and settled, and fruit-raising has grown to be the leading industry. Native trees and bushes have given place to grain-fields and orchards. The birds that

formerly lived on wild fruits and berries have taken to a civilized diet, and this has naturally caused complaint from farmers and horticulturists. Birds that were unknown to the ordinary fruit-raiser, such as the Varied Thrush and Lewis Woodpecker, have suddenly been discovered, and have aroused complaint,—the former because it eats grapes, and the latter is known as the 'Apple Bird,' because it frequents apple orchards.

The complaint has come from certain quarters that birds are doing more harm than benefit, and, at the last session of the Oregon Legislature, a bill was introduced which permitted farmers, orchardists and gardeners to kill any bird they thought harmful. Such a sentiment was aroused against the birds by a few fruit-growers that the bill passed both Houses, and would have become a law had the members of the Audubon Society not made a strong appeal to the Governor, who vetoed the bill.

In order to forestall evil bird-legislation, we have begun a systematic work of education throughout this part of the country. A series of Bird Leaflets are being prepared, and will be published under the authority of the University of Oregon. These are to be used at teachers' institutes, and, in connection with the Leaflets of the National Association, will spread the interest among the school children. During the past year, a series of lectures have been delivered in eight different towns and cities throughout the state, in order to arouse greater interest in the study of bird life. These lectures are also to be given before the various granges and other societies. Considerable publicity work has been done by articles in newspapers and magazines, such as 'School and Home,' and 'The State Grange Bulletin.'

The past year has marked the beginning of systematic work in bird protection in the state of Washington. Several bird lectures have been given, and on April 20, at the conclusion of a lecture in the assembly hall of the Seattle High School, the Washington Audubon Society was organized. This has since grown to be a thriving organization, and will undoubtedly have a wide influence in protecting the birds of the state. Your agent has also given public illustrated lectures on the subject of bird study and bird protection in Illinois, Michigan, Minnesota and Indiana.—WILLIAM L. FINLEY.

REPORT OF JOHN B. WATSON ON THE CONDITION OF THE NODDY AND SOOTY TERN COLONY ON BIRD KEY, TORTUGAS, FLORIDA

During May, June and July of the present year (1907), which are the important months in the nesting season of the above-mentioned Terns, I acted as warden of Bird Key. While serving in this capacity for the National Association, I was at the same time engaged in a scientific study of the habits of these birds for the Marine Biological Laboratory of the Carnegie Institution. The scientific report of this work will naturally first appear in the archives of the Carnegie Institution. I wish, in the present connection, to extend my thanks

to President Dutcher and to the Audubon Society, for kind permission to carry on scientific studies on a protected bird colony, and for the complete control of the colony during the period of study.

The writer has nothing but favorable statements to make upon the condition of the colony. A few years ago, Dr. Thompson (*BIRD-LORE*, Vol. V, 1903, pp. 77-86), made a detailed report upon the condition of this colony. Apparently, since that report was made, the birds have increased largely in



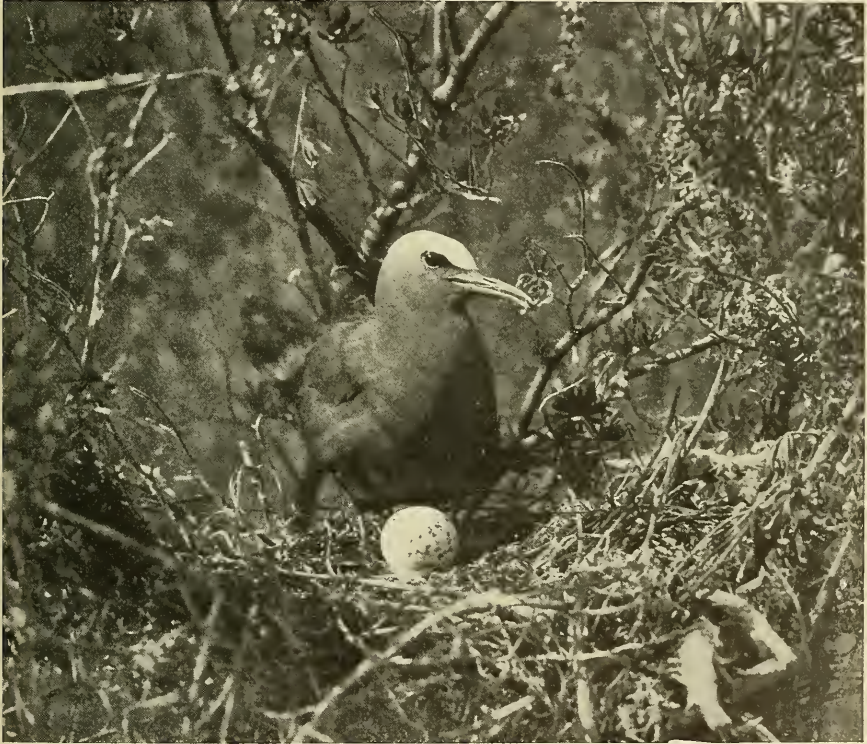
OLD HOSPITAL BUILDING, BIRD KEY, DRY TORTUGAS, FLORIDA
Used by wardens as a residence

numbers. By methods which are described below, some notion of the number of birds nesting upon the island was obtained.

Approximate Number of Sooty Terns.—As was shown by Dr. Thompson, some of the Sooties lay their eggs in holes in the sand, either under the bay cedar bushes, or out in the open spaces, while others lay directly upon the sand, or upon the matted grass. Apparently, the Sooties come to the island in groups. This is evidenced by the fact that laying begins at slightly different dates upon different portions of the island. Roughly speaking, the southwestern portion of the island was first 'taken,' for the eggs first appeared in that section; then, in order, the central and northeastern portions. The natural subdivisions of the surface of the island, the sandy places, wooded portions, etc., made it pos-

sible to subdivide these large nesting-places into given areas, for the purpose of enumerating the eggs.

The three large areas were accordingly subdivided into ten smaller areas. The number of square feet in each was next determined. Likewise, in each of the ten areas, several smaller areas containing ten square feet were marked off at random, and the number of eggs in each of these was actually counted. These separate counts were then averaged, thus giving a fairly representative



NODDY TERN ON NEST, DRY TORTUGAS, FLORIDA

figure for the number of eggs per square foot. Knowing the number of square feet in the area as a whole, the estimate of the total number of eggs contained in it could easily be made. When this same procedure had been followed with respect to each of the ten areas, the total number of eggs was found to be 9,429. Since the birds usually lay but one egg and there are two adults attached to each nest, the total number of Sooties reaches 18,852. This, certainly, is not an excessive valuation. The group photographs (reproduced by permission of the Carnegie Institution) taken upon one of the areas most numerous supplied with eggs, give a fairly correct notion of how thickly the birds are packed together.



SOOTY TERNS ON BUSHES, SUNNING THEMSELVES — THEY NEST ON THE GROUND

Approximate Number of Noddy Terns.—Since the Noddies build their nests of twigs, moss and sea-shells in accessible places, it is easily possible, with the help of a mechanical counting device, actually to count the number of nests. In some places, where the bay cedar is exceedingly dense, and the area has to be gone over dog fashion (or at times even more primitively), and in others, where the cactus growth is very dense, error in counting is possible. Six hundred and three nests were actually counted. Probably 700 nests (inhabited) would be a safer estimate. Doubling this count to get the number of birds as before, we have approximately 1,400 Noddies on the island. For reasons which I will admit are not scientifically based, I feel that the above figure does not give a sufficient number of Noddies. In the first place, from the general impression one gets, one feels that there is a vastly greater number present. In the second place, there are always hundreds of Noddies 'sunning,' either on the beach or in the trees. Now my studies show that, during the brooding season at least, the Noddy has no leisure. Consequently, I feel sure that there are many cases where the birds live on the island without nesting. I venture the suggestion, merely as a suggestion, that the Noddy does not breed until at least two years of age.

A Running Account of 'Nesting Events.'—The birds landed upon the island (April 27) five days before I

reached it. On May 2, the beginning of my three months' continuous residence there, the birds (both species) were present in large numbers. As Dr. Thompson suggests, mating, apparently, had already taken place before the arrival of the birds upon the island. The Noddies were busily engaged, some in rehabilitating old nests, others in constructing new ones. (The Noddy is never satisfied with its nest, no matter how large it is. A suitable twig, piece of shell, or bunch of moss, is an irresistible stimulus, which sets free the collecting movements, regardless of the stage of advancement of the nesting period.)

The Sooties, at this time, were choosing and 'holding' appropriate nesting-sites. This was done only by dint of persistent fighting. The building of the



NODDY TERN PORTRAITS

Sooty nest is an affair consuming very little time, even when an 'elaborate' nest is constructed,—a little 'back shoveling' with the webbed foot, a little 'breasting':—a term I have chosen to designate the operation of sitting flat in the nest and turning round and round and using the breast as a 'shaper'—and the deed is done.

On May 5, two Noddy eggs were found. On May 7, several Sooty eggs were laid. From this time on, the eggs were rapidly laid by both species. Three weeks from these dates, most of the eggs had been laid. On June 3, the first



SOOTY TERNS NEST ON THE GROUND, NODDY TERNS NEST IN THE TREES,
DRY TORTUGAS, FLORIDA

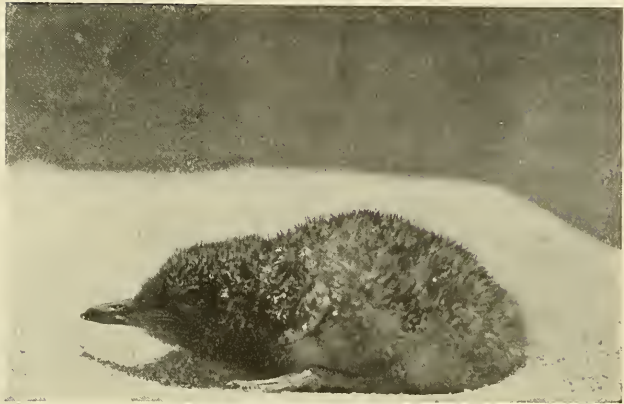
Sooty young was found. Marked eggs showed the incubation period to be slightly variable but averaging about twenty-nine days. On June 9, the first of the Noddy young appeared. Marked eggs showed the incubation to be very variable, from thirty-three to thirty-eight days.

In most cases, only one egg was laid. This is strictly true for the Noddy. I have never seen two eggs in a Noddy nest except in cases where the first egg had been displaced, and hence no longer gave the proper contact sensations. I counted in the neighborhood of fifty Sooty nests where two eggs were present. In one case, I actually saw the parent bird with two young, and, in another case, one young bird and one unhatched egg. Since no unhatched eggs were

found later, I am inclined to believe that, in these exceptional cases where two eggs are laid, both are hatched and the young reared.

The weather during the past nesting season was calm. Only one storm occurred, which did little

damage. The island is so small and so little above sea-level that the birds are always in danger from this source. It is well that they have favorable years, when thousands are born and reared without mishap, as was the case during the past year. In addition to adverse climatic conditions, the young of these birds are subject to the following vicissitudes: (1) The adult Sooties kill the young belonging to adjacent Sooty nests. This occurs, however, only when the colony is disturbed and the young seek cover. The old



SOOTY TERN EIGHT DAYS OLD



SOOTY TERN TWENTY-FIVE DAYS OLD, DRY TORTUGAS, FLORIDA



NODDY TERN EIGHTEEN DAYS OLD

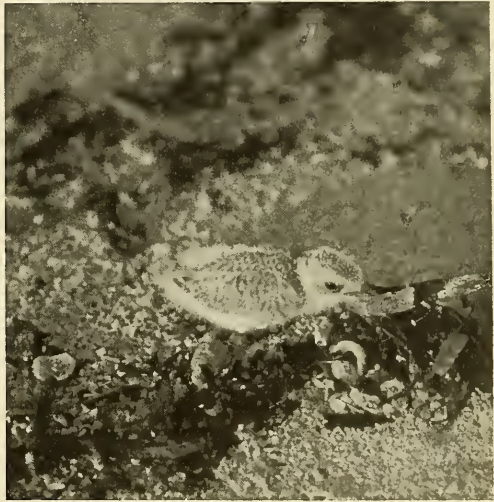


NODDY TERN THIRTY DAYS OLD, DRY TORTUGAS, FLORIDA

birds return to the nest first. When the very young birds shortly begin to return to their respective nests (as they always do after every interruption until they are ready to fly), they have to run the gauntlet of the sharp beaks between them and their goal. The young which are thus slain are, approximately, from one to five days of age. After they attain the fifth day, they are quick to avoid the neighboring nests. (2) On account of the carelessly constructed nest, the Noddy young often falls to the ground and perishes. Just what percentage of the young of the two species are lost in these ways is not known.

Relation of Frigate Bird to Tern.—After the young Terns appeared, possibly five hundred Frigate Birds were present on the island. Even during the laying season of the Terns, one

hundred to one hundred and fifty Frigate Birds are always present. In order to verify the statements of Dr. Thompson and others to the effect that the Frigate Bird chases the fish-laden Tern until it disgorges, a tower was constructed which gave an adequate view of the island as a whole. The above statement of Dr. Thompson could not be verified, nor could a further statement which is sometimes made, to the effect that the Frigate Bird eats the young Terns. On the other hand, hundreds of times I have seen the Noddy (rarely the Sooty) chase the Frigate Bird



ONLY LEAST TERN FOUND ON LOGGER-HEAD KEY, FLORIDA

Rats and dogs destroy the eggs. This species of Tern has been nearly exterminated by plume hunters

when the latter attempted to alight (roost) in the vicinity of the Noddy nest. In justice to the above writers, it must be said, however, that the number of Frigate Birds rapidly increases as soon as the young Terns appear, and that all during the day they continually rest on the low bushes which are nearest the open nesting-places of the Sooties.

A Few Words About the Least Tern (Sterna antillarum).—The Least Tern, so far as the Tortugas group of islands is concerned, is nearing extinction. Early in the season, it was thought that a moderate-sized colony was going to thrive on Loggerhead Key. When this colony was first visited, in the neighborhood of fifty nests were found, a large percentage of which contained two eggs. About two weeks later, the colony was again visited. Only one nest containing eggs remained. A visiting dog (from the lighthouse) and a large colony of wild rats which infest this island probably destroyed the eggs. One Least Tern was

hatched in the above nest. The photograph of this bird is given below. (This photograph was taken by Mr. Keller of the Marine Biological Laboratory Staff.) Still another attempt was made by these birds to colonize Sand Key, but there their nests were systematically robbed. Sand Key is about two miles distant from Bird Key. It is very small, and is so constantly washed over by waves at flood-tide that it is extremely improbable that it can ever form a suitable nesting-place for these Terns.

Dr. Mayer who is extremely interested in the bird life at Tortugas has promised to afford the Least Tern adequate protection if it again attempts to colonize Loggerhead Key. Colonization of Loggerhead Key will give them their only chance to survive. There is no room for them on Bird Key, and the other Keys can probably never be adequately protected.—JOHN B. WATSON.

**REPORT OF A. C. BENT, ON CONDITION OF BIRD COLONIES ON
COBB'S ISLAND, VIRGINIA, IN 1907**

We landed on Cobb's Island Sunday afternoon, June 23, and left the following Sunday, June 30, at noon. We made our headquarters at the Cobb's Island Club House with Mr. George Isdell, who was then in charge of it; we consulted Captain Andrews frequently, at the life-saving station, but could not stay with him, as he had no room for us. We explored Cobb's Island quite thoroughly, and several of the surrounding islands and marshes, as they are called, including Wreck, Moon and Pig Islands, Big Eastward, Little Eastward, Rapesan and Presses 'marshes.'

Pig Island is a large, low and sandy island, practically devoid of vegetation,—really nothing more than a large sand-bar raised sufficiently to be above the reach of the highest tides. Cobb's, Wreck and Moon Islands consist mainly of extensive salt-marshes, partially flooded at high tide, protected on the ocean sides by high sandy or stony beaches, frequently covered with great piles of oyster-shells, washed up from the sea. The so-called 'marshes' are inside islands consisting mainly of salt-marshes, flooded at high tide, but generally containing some dry lands.

We did not visit Smith's Island, for lack of time and because we heard that birds were not as plentiful there as on the islands we explored.

Laughing Gulls were abundant everywhere, perhaps nearly as abundant as they have ever been within recent years. We found two or three large breeding colonies on Cobb's Island, and many smaller colonies or scattering pairs nesting on the salt-marshes, where their nests were conspicuous in the short marsh grass. The largest colony of all was on Big Eastward, and there were other large breeding colonies on Little Eastward, Rapesan and Wreck Islands.

The birds do not seem to be molested, but, as eggging is allowed up to July 4, the eggs are persistently and thoroughly collected almost daily by the oystermen until that date, after which they are allowed to raise their birds. Out of

hundreds of nests examined, we were able to find only two complete sets of three eggs. It was surprising to see the thoroughness with which the nests were robbed. Oystermen and fishermen are very numerous here, and, as they are busy on their fishing-grounds at this season they live in small shanties on the marshes and derive an important part of their food supply from the eggs of the sea-birds, principally the Gulls. As the birds do not seem to be materially reduced in numbers by their depredations, laying their eggs persistently like domestic fowls, perhaps it would be hardly fair to deprive the men of this convenient source of supply where provisions are so hard to obtain; but it does seem as if the egg season might be shortened somewhat. The wardens, of course, are powerless to stop egging until laws can be passed prohibiting it.

Gull-billed Terns are rapidly disappearing from this region, where only a few years ago they were common. Only two pairs were seen on Cobb's Island. I saw a few Terns, not over two or three pairs, at Pig Island, which I thought were this species. At Wreck Island we found a few Gull-billed Terns,—perhaps eight or ten pairs,—breeding in the Black Skimmer colony. We found, in all, only four nests, one on Cobb's Island and three on Wreck-Island.

A few Common Terns were seen almost everywhere, and a number of their nests were found, but no large breeding colonies were noted.

Forster's Terns were occasionally seen at various points, and a few frequented a marsh on Cobb's Island almost constantly, but no nests were found there. On June 28, we discovered a large breeding colony on Wreck Island. Probably over one hundred pairs, and possibly nearly two hundred pairs, were breeding on a salt-marsh, where their nests were thickly congregated on windrows of driftwood along the edge of a creek. The birds can be easily recognized by their notes, and their nests are characteristic, being very neat, well-built structures on large piles of driftweed. These and the other Terns' eggs are apparently not regularly taken by the fishermen, perhaps because they are too small, for we found full sets of eggs in all stages of incubation and some young birds.

The Royal and Least Terns have now become practically extinct in this region; we saw none of either species, but were told that a few Royal Terns are seen occasionally. The Least Terns have been thoroughly annihilated for millinery purposes. Our guides told us most appalling stories of the immense numbers of these birds that were slaughtered here within the past few years; the figures were almost incredible; he and nearly all of the gunners and fishermen on the coast took a hand in the game, and they kept at it until the last one was gone, though at first the supply seemed inexhaustible. Probably this species will never be reëstablished on this coast, but I am happy to say that protection has come in time to save the Forster's and Common Terns.

I understand that shooting for the millinery trade has been entirely and effectually stopped, as it is known to be illegal and the wardens are seeing that the laws are enforced.

Clapper Rails are still abundant on the meadows, where they are almost constantly heard, though less often seen. We found a great many nests, but saw practically no young birds.

The eggs we found were probably second sets, but we were unable to decide whether the earlier sets had been destroyed by high tides or whether they had hatched and the young were keeping out of sight. The eggs are taken to some extent by the fishermen, but not so regularly as the Gulls' eggs, which are larger and more easily collected.

There were two very large colonies of Black Skimmers nesting on Pig Island, a small colony on Cobb's Island and a large colony on Wreck Island. They were only just beginning to lay, and hardly any of the sets were complete before we left. I doubt if many of the eggs are taken by the fishermen, though they are considered good eating; they do not begin laying much before the egging season closes. The birds are not shot or disturbed in any way, and I do not see why they should not hold their own for many years to come.

Of the Willets, there were not over three pairs, and I am inclined to think that there were only two pairs, as we never saw more than four birds at one time. They frequented the north end of Cobb's Island and had apparently finished breeding. About three or four pairs of Wilson's Plovers also frequented the same locality and had evidently been breeding here; they acted as if they had young in the vicinity, but we could not find them. Both of these species are, in my opinion, doomed to speedy extermination in this locality, as they are far from wary and will sooner or later be killed by some of the numerous shore-bird hunters, who come here to shoot the migrant birds in the spring as well as in the fall.

Less than half a dozen pairs of American Oyster-catchers were seen,—one pair on Pig Island, two or three pairs on Cobb's Island, and one pair on Wreck Island. The latter pair evidently had young, but the others were apparently through breeding.

These birds are exceedingly wary and better able to survive; moreover they are not considered good eating and therefore are not sought for by the gunner, but it hardly seems likely that they can last many years more.

To sum up my conclusions—I should say that the Royal and Least Terns are hopelessly gone; the Gull-billed Tern, Willet, Wilson's Plover and American Oyster-catcher are doomed, and nothing can be done to save them; but the Laughing Gull, Forster's and Common Terns, Black Skimmers and Clapper Rails are now being adequately protected, and should survive.

The wardens seem to be doing their work effectively and the laws are respected. But the egging season might be shortened and spring shooting ought to be stopped entirely. The only possible way to save the three shore birds which now breed on Cobb's Island would be to make it a reservation and stop all shooting there at all times. As the eastern Willet is rapidly approaching extermination, it would seem worth while to protect it.—A. C. BENT.

**REPORT OF ARTHUR H. NORTON ON COLONIES OF BIRDS IN MAINE
RECEIVING SPECIAL PROTECTION IN 1907**

The birds receiving special protection in Maine by wardens employed by the National Association are Puffin, Black Guillemot, Leach's Petrel, Double-crested Cormorant, Common and Arctic Terns, Herring, Great Black-backed and Laughing Gulls, American Eider Duck, Spotted Sandpiper, Great Blue, Black-crowned Night Herons and Fish Hawk,—a total of fourteen species. With the exception of the Cormorant and Black-backed Gull, all breed in greater or less numbers. By the timely effort of the Association, three species, the Puffin, Laughing Gull and Eider Duck are being rescued from the very verge of extermination in Maine.

The colonies were last inspected during the period from July 12, to August 16, 1904, and the results given in summary in *BIRD-LORE* (January-February, 1905, VII, pp. 90-93).

The present inspection covers the period from July 24, to August 7, a much shorter period. On August 9, a trip was made to Bluff Island in Saco Bay, and August 16, one was made to Muscongus Bay, completing the work. The ground covered extends from Eastport to Saco Bay, Maine, approximately two hundred miles in an air-line. The number of islands and ledges on which I found colonies of birds breeding this year is twenty-eight. This includes all of the important ones now known on the coast. The significance of these facts will be considered in treating of the Herring Gull. In order to reach all of the various islands in the limited time at my command, it was necessary at each center to employ a competent boatman with a motor craft; this brought me in direct contact with lobster fishers, sailing-masters, scallop dredgers and general shore-fishermen.

It may be here remarked that the invention of the motor-boat marks the beginning of a new period in the history of the shore fisheries of all classes, an industry which has had a potent influence on the history of our sea-birds. It seems to me that this new period is one for the better, and it is to be believed that the darkest days have been passed.

It is also a fact that the birds used as food are now much less numerous than they were a dozen years ago, and the generation of gunners among the fishermen are becoming superannuated. In those days it was usual for many to carry a gun in their boats, but the practice seems to have ceased, and all are aware that there 'is a fine' on the game birds.

PUFFIN.—I saw no Puffins this year, though, on landing on Matinicus Rock, I hastened to their resort. This was during the middle of a clear day when the birds were away fishing, even the Black Guillemots, which are so numerous here, being absent from the vicinity. I was told by Captain Hall's young son that he had seen five Puffins at one time this summer, and other observers assured me that they had seen one or more. The Puffin is one of the most picturesque features of our bird-life and its preservation is much to be desired.

BLACK GUILLEMOT OR SEA PIGEON.—These most attractive birds are still

common on the coast of Maine. They are very local in their choice of haunts, and, though they are undoubtedly holding their own, do not seem to be increasing. Their habitat in Maine still embraces most of the outer islands from the western entrance of Machias Bay to the west side of Muscongus Bay. They are especially numerous about the Mt. Desert and Matinicus groups of islands.

They appeared tamer than on former visits, flying very near boats or allowing a close approach. On August 16, but one was seen on the Western Egg Rock (Muscongus Bay), where formerly about a half dozen were accustomed to breed. At all of their other stations about the usual numbers were observed. This absence so late in the season may have been due to their having left the breeding grounds.

The one seen was certainly not shy, but came to its nest with a rock eel, while we were still near the shore. She hurriedly carried the fish into the rock pile for her young, and quickly emerged and flew away. All of my observations on this species convinces me that at this season, at least, its food consists almost entirely of rock eels (*Gunnellus gunnellus*). Thus, so far as food is concerned, it is of neutral value. Yet its beauty, gracefulness and pathetic voice makes it fill a peculiar place in the scenery of barren rugged coasts. Surely, to the increasing throng who visit our shores for recreation and esthetic enjoyment, it is, in the near future, to "awaken an interest they could not excite in a savage breast."

It was a matter of much satisfaction to find that the nest shown with the incubating parent (The Auk, Vol. XXI, Pl. XVII), contained, on August 6, this year, two young ones nearly ready to leave. This nest was first observed in 1902, since which time it has been occupied on each visit.

Great Black-backed Gulls were resting in small numbers—a dozen or two birds—at No-Man's-Land, Wooden Ball and Metinic Green Islands. They are not now known to breed on the coast, but are evidently becoming regular summer residents, in increasing numbers, in the vicinity indicated, taking advantage of the security afforded their near relatives. Their breeding is to be expected under such suitable conditions.

HERRING GULL.—Eight colonies of this Gull were visited. They are located at Old Man, Brothers, Pulpit Rock, Cone Island, Little and Big Duck Islands, Heron Island and No-Man's-Land. The distance, in an air-line from Old Man, the most eastern colony, to No-Man's-Land, the most western one, is one hundred and twelve miles. The three western colonies are the largest, and contain many more than half of the Maine Gulls. Each of these colonies commands an indentation or bay of the adjacent coast, which, with its peculiar currents, large areas of flats, bars, ledges and mussel beds, furnishes the greater part of the food of the dependent colony.

It is well known, of course, that these Gulls radiate in some numbers in all directions up to thirty miles, and it has been conjectured that they range much farther.

My estimate of the number of the smaller or eastern colonies is fifteen hundred to two thousand at each, Old Man and Brothers, eight hundred at Pulpit Rock, and four thousand at Cone Island.

The area occupied as breeding stations by the birds just enumerated has its extremities thirty-two miles asunder, with a possible feeding range of sixty miles, east to west, without encroaching upon the feeding-grounds of any other colonies. The colonies of Cone Island and the Brothers show the most remarkable increase in the total number of adult birds; and it is certain that the breeding birds have increased at both places, though much more at Cone Island. The number of adult birds at Great Duck Island, one of the most securely protected colonies on the coast, seemed noticeably less than on my last visit.

It is worthy of note, in this connection, that the number of Gulls spending the summer west of Pemoquid this year is much smaller than at any corresponding season for the past four years. On all of the breeding grounds the birds are tame; nowhere did I see evidence of molestation by man.

At Old Man and Brothers the breeding season seemed much later than elsewhere, many young being just hatched, and some of the occupied nests were just hatching. At Cone Island the season seemed to correspond with the western colonies. With the exception of the Old Man, at all of the colonies considerable mortality was noticed among the young, probably due to the causes which have affected the Terns.

The Gulls are tame and unsuspecting; their young hatch at a seasonable time, and they are occupied with feeding them rather than with remating and trying all summer to breed. While we now have several very large colonies of Gulls, it should be borne in mind that, previous to 1900, many smaller ones existed. There are now considerably fewer colonies than there were previous to the movement to preserve the birds. They now lead normal lives, and it seems certain that they have reached the state of abundance where their competition with natural checks is much more severe. With the increase of birds at any colony, the supply of food must be sought at greater distances, causing greater exposure of eggs and young to the elements and to predaceous animals. Several checks are evident and operative, and the idea that the birds are about to overrun all bounds, as claimed by a small party, is plainly fallacious. Crows are notorious robbers and destroyers of eggs and young birds, including Terns, and why not of Gulls.

Terns are much more agile in the defence of their nests and young, yet with them the cunning of the Crow often prevails. Captain Stanley, of Duck Island Station, told me that the day before my visit an Eagle had visited his colony and been seen to kill two old Gulls. At the Brothers a magnificent individual of the Peregrine Falcon was seen, and evidences of several feasts on Petrel were discovered. Young Gulls must have been entirely at his mercy. Ravens are numerous enough in all the section inhabited by Gulls in this state to serve as a factor in holding them in check.

The trip from Rockland to Matinicus on the little steam packet 'W. G. Butman,' carrying in addition to her crew, passengers, freight and the United States mail, was made through a dense fog, which obscured all objects fifty or seventy-five yards away. It was a matter of especial satisfaction to me to witness the fact that, after running by the compass for a specified time, the Captain stopped the engine, and listened for the Gulls on No-Man's-Land. This welcome sound being distinctly heard, he noted carefully the direction and moved the craft cautiously onward, until 'Two-Bush' eastern head was spied, directly in his path. Another course was laid and the craft worked safely into the harbor.

It is also a fact that I have been assured of, that the pollock trawlers are guided to the schools of fish on this coast by the Gulls.

Many of the lobster and other shore fishermen now value the presence of the Gulls as above indicated, in guiding them to schools of fish, and in sailing in fogs.

The uncomplimentary things said about the birds were confined to our extreme eastern border.

Elsewhere, I witnessed an increased interest and growing admiration. An elderly gentleman at Jonesport said, "I am glad to see the Gulls in the harbor. When they come in the fall, in large numbers, right up to the wharves, it seems good to see them."

LAUGHING GULL.—The colony of Laughing Gulls located at Western Egg Rock, Muscongus Bay, was inspected on August 16 and found to be in good condition. The birds allowed a close approach before taking wing, but, after having been alarmed, hung far above us. After a short time, I made a count of thirty birds overhead, and now believe that our estimate of fifty that arose from the island was very nearly correct. Unlike my former visit, many remained flying over the island throughout the period of my presence.

Immediate attention was given to the nesting-ground with the result of finding a number of nests, all of which had hatched, and their vicinity was trampled and whitened by the excrement of the young. Roads ran from the nests in several directions into the dense mass of vegetation.

At least two young birds were seen on the wing, and, after a diligent search, another, a half-fledged one, was found. It tried to make its escape by skulking, but became entangled in the weeds and was taken in hand. It was a beautiful and spirited young creature, and some difficulty was experienced in obtaining a picture of it. It was returned to its road and the shelter of the weeds, and made haste to run and hide. A little search was made a few minutes later, but it could not be found. I was convinced that they are expert at evading observation, the freshness of the roads through the weeds was unmistakable witness of this fact. Two nests contained each an addled egg, but no other eggs were found. The colony certainly looks flourishing, and the outlook for the species the most hopeful for many years.

It must be said that this single colony is all that remains of several larger

ones once in the western half of Maine. Without protection, this species would soon have been blotted out of our state fauna. It is a species calculated to fill a place that no other bird can fill, to these generations who are to find enjoyment in the wild life of our coast, such as their forefathers could not know. A pair was seen swooping down over the Shark Rock, indicating that they have taken to breeding there again.

COMMON AND ARCTIC TERNS.—Terns are abundant and very tame on the Maine coast, from Englishman's to Saco Bay. Large numbers were still on the breeding grounds and many young ones were observed. On August 31, the first young ones were observed at sea, near the outer limits of Penobscot Bay. Several of the old resorts have been reoccupied since our last trip of inspection. These are Ship Island, Green Islands below Blue Hill Bay, and Shark Rock.

Large numbers of young Terns perished at Matinicus Rock at the time of hatching, by reason of a heavy cold rain; and wherever I observed, a considerable number of dead young were seen, of all sizes, even well-fledged. Captain James Hall, of Matinicus Rock, whose opportunities for observation are unrivaled, expressed the belief that food is scarce and starvation is the cause of much death, late in the season.

My visit to Libby Island was on July 26, when I found the large colony of that place entirely gone. Before I left the place, about twenty Terns flew in over the island and then away. Captain McKlusky said that many returned in the spring. No migratory movement was detected until August 16, certainly none being in progress on August 9. I was assured by several persons that they were abundant over the water far up Machias Bay. These probably belong to this colony. The presence of the Peregrine Falcon at the Brothers seemed to me sufficient reason to account for the abandonment of Libby Island by the Terns. One of these birds took up its abode at the Egg Rocks, in Muscongus Bay, in 1901, and the Terns abandoned the place and their eggs. There I collected pellets filled with feathers and bones of Terns and Petrels.

A new colony of Common Terns was visited at Ballast Island, Englishman's Bay. It was in good condition.

At Freeman's and Egg Rocks very large numbers were seen, both old and young, though the young had not left the shore. About a dozen had evidently bred successfully on Green Island, near the southwestern entrance to Blue Hill Bay. None were seen there on my former visit. About fifty old and young were also seen on Ship Island, also abandoned at the time of my former visit, 1904.

Throughout upper Penobscot Bay, Common Terns were abundant and tame, belonging to the ledges northwest of Eagle Island. None were seen in Jericho Bay, though a close approach was made to Saddleback Ledge and Southern Mark Island. At Matinicus Rock and Metinic Green Island the large colonies seemed undisturbed by man.

Very few (as usual) were at the Western Egg Rock, Muscongus Bay, but

the colony at the eastern Rock was as large as in the early days of my experience there. Here were several piles of a dozen or more eggs lying in exposed places, showing that the hand of man had been molesting. A colony of one hundred or less was also at the Shark Rock, none being there on my last visit.

I was told by Mr. Willis Snow that he had heard a report that a party of boys went to Marblehead Rock on the Fourth of July and gathered all of the Terns' eggs and threw them at marks, showing that the need of protection has not passed away. This is an isolated rock five miles below Rockland, where the services of a warden would be impracticable.

No Terns have bred in Casco Bay, so far as I can determine. The Bluff Island colony continues in its usual security and good condition.

LEACH'S PETREL.—This bird is known to breed in Maine only on the outer tier of islands from the Brothers, a little west of the entrance to Machias Bay, to the west side of Muscongus Bay; yet it does not breed on all of the islands of that tier.

As its habitat must always be limited and it is an easy prey for its enemies, having suffered considerably of late years, especial attention was given to its present condition.

Who has not heard of the Petrel, from childhood? Who does not know of its walking upon the waves? How could we spare Mother Carey's Chickens from our broad expanse of ocean, and the lore peculiar thereto? Within the past fourteen years its range has been reduced, and one of the largest colonies of the state has been seriously affected by permanent camping and the keeping of dogs and cats.

At the Brothers, the colony is small, and the freshly torn wings of several, with the particles of flesh still red, were seen, undoubtedly the work of the Peregrine Falcon. In one instance, a ghastly pair of these wings had been taken by a late-breeding Gull to repair its nest. The next colony west of this is at the Duck Islands, fifty-eight miles distant. Here the colonies are large and in excellent condition.

A colony of considerable size is on the Green Islands, at the southwestern extremity of the entrance to Blue Hill Bay. This is also in good condition. These islands are very small, containing but three or four acres.

At the Big Spoon Island a colony of considerable size existed with a much smaller one at Little Spoon Island. The Big Spoon colony has suffered by camping and its associated evils. At the Matinicus Islands very large colonies have always existed, the largest being located at Seal Island and Wooden Ball, with much smaller ones at Matinicus Rock and No-Man's-Land. At the Seal Island the colony is still very large, but at the eastern end many have been dug out of their burrows by dogs, and several mangled birds were seen. With the possible exception of a few Guillemots, no other sea-birds breed here now, though a large colony of Terns was annihilated for the plume trade. It is said that the birds have been more conspicuous this season at Matinicus Rock than usual. At this

place and No-Man's-Land no indications of disturbance were to be seen, and the same is true of the small colony on Metinic Green Island.

Quite large numbers still breed at both Egg Rocks in Muscongus Bay, and their burrows and peculiar odor were very conspicuous. Here they have been killed and eaten, to a considerable extent, by some predaceous animal, perhaps Crows or Ravens. A couple of these black marauders were seen at the Western Egg Rock, but too far away for identification. The Muscongus Bay colonies are likely always to remain at the mercy of natural conditions.

The Duck Island colonies and the smaller ones at Matinicus are now fully protected. By the timely exclusion of dogs and cats from the Seal Island, this important colony can also be saved. The once large colony at Wooden Ball has been sadly reduced by camping.

DOUBLE-CRESTED CORMORANT.—This species continues to remain on our coast in small numbers. The colony at Pulpit Rock was of its usual size, and birds were very tame. Landing was not made, and no nests could be seen from the boat. I caused one of my boatmen to run out to Black Rock, near Cone Island, where, according to a report, Cormorants breed. Three of the birds were nesting there, but the ledges are entirely unfit for a breeding place, being so low that it must be swept over during gales from the outside, and it is very small. The flock at No-Man's-Land numbered thirty at the time of my visit, all males in glossy plumage. A few brown birds were seen fishing about the island. No evidences of nests were found. It is to be expected that they will begin breeding at this point if the present excellent conditions continue. This place became a summer roost in 1903, when I saw but five.

AMERICAN EIDER.—There are probably today no Eiders breeding on the coast of Maine, except those at Old Man's Island near our eastern boundary. The island has been leased to the National Association by the Governor and Council of Maine, it being state property. Capt. Fred. E. Small, keeper of the Cross island Life-Saving Station, warden for the Association, has erected a large sign, informing all who approach the rugged shores that it is a reservation for wild birds. This warning has been so well respected that the Ducks have become remarkably tame. Without this effort of the Association, we should now undoubtedly have to record this species among those extirpated from the state.

The shores of the island rise nearly perpendicularly from forty to one hundred feet (estimated), nearly all around, except at the southwest or outer part, which slopes away gradually to low-water mark. Here, seventy-five yards off, several quarter-tide ledges lay, making, at low water or rough weather, a narrow, rocky and treacherous passage between them and the shore. This part of the island is exposed to the full and ceaseless action of the surf.

Here the Ducks find a congenial resort, in the rough water and about the ledges. The top of the island, which is rent completely in two by means of a washed-out dike, four to six feet wide, appears like an elevated plateau, clothed to the bank with white spruce and fir, low, scrubby and dense. Many dead

trunks stand, decaying and waiting the fury of some gale to hurl them to the ground, to molder with innumerable fellows which have gone before them.

Mosses, ferns and coarse weeds, with an abundance of brambles, nearly complete the vegetation, and so rank in growth are the latter that they have made a most uninviting tangle. One's way must be forced through these, over and under the brush and logs, guided by the mooted 'sense of direction,' if a stranger.

This tangle affords an obstacle to the Gulls, which must resort to the shelves of the rocky cliffs, the sloping southwest shore, the adjacent picturesque needle rocks, or the tops of the trees, to nest. Not so the Eiders, which prefer to walk to and from their nests. To them the tangle affords a secure retreat.

Responding quickly to the conditions extended to them by protection, they have become so fearless of boats that I was taken just outside of the off-lying ledges, hardly a hundred yards from two females which sat on the shores of the island, without standing as we passed. Several others remained between the shore and the ledge, considerably nearer, without flying. It was a sight sufficient to stir the enthusiasm of any one who has known these magnificent creatures as the wildest of wild birds. It was enough to stir the pride of any, but the heartless, and it is gratifying to state that Captain Small's associates share his pride in the flock of Ducks.

I saw seven females, and, outside of the ledges, a young male, probably but a yearling. The latter, on being approached, rose and flew a short distance, then dived and skulked. I was unable to find a nest, in a second short visit here.

On August 25, in the morning, as the Portland and Eastport steamer ran up Grand Menan Channel, three old drakes flew from the Campobello shore, southwest, or toward the west side of Grand Menan. I was told by Captain Fred Berry, now a surfman of the Cross Island Station, that one or two of these Ducks have often been seen about the western end of the Western Shot, this summer.

None were seen about their former resorts at Green Islands, below Blue Hill nor at Spirit or Saddleback Ledges in Jericho Bay. At Metinic Green Island, August 6, a young drake, a yearling, was flushed from the surf line; he flew about a hundred yards and alighted

GREAT BLUE HERON.—One of these birds was seen flying from Indian River toward the rookery at Great Wass Island. On August 2, the Bradbury Island Colony in Penobscot Bay was visited and found to be in excellent condition. The nests are now large from reoccupation, and all contained young nearly full-grown. A few had left the nest and were in the trees close by. This colony covers a considerable area, but the nests are scattered. It is extremely difficult of exploration, being on a very steep hillside, in spruce timber, considerable of which has died and fallen, lying with its brush on the ground. Wild currants, raspberries and red-berried elder have penetrated the brush and flourish in pro-

fusion. Travel there is indeed laborious. The crash and rustle of my progress excited more curiosity than alarm in the birds, both young and old.

BLACK-CROWNED NIGHT HERON.—This bird seems to be increasing and forming new colonies. A nest with newly-hatched young in a low spruce was found on Old Man Island, the first seen there. It was hardly ten feet above the ground. At Heron Island the colony has become established, and the same is true of the one at No-Man's-Land. A colony of considerable extent has formed on Bradbury's Island since my visit there in 1903. At all of these places (except Old Man) the young were out of the nests, but close by them.

SPOTTED SANDPIPER.—This species is abundant on all of the islands and ledges affording suitable conditions. I am not aware that it is molested. The young were flying, though one rather young one was seen on Ballast Island, Englishman's Bay.

OSPREY OR FISH HAWK.—This bird is still common in Penobscot Bay, largely, I believe, owing to an old superstition, which has afforded them protection. Yet the early days of the granite industry reduced their numbers here materially. On Bradbury Island there are several nests on trees, now occupied, so far as I was able to observe. On several ledges between this island and North Haven Island are nests built upon the rocks, perfectly accessible to man. The young birds were about ready to leave the nests, and were now standing upon their flat tops. Some were already flapping their wings in anticipation of flight.—A. H. NORTON.

REPORTS OF STATE SOCIETIES

The reports of the State Societies for the past year in most cases show substantial progress, especially along educational lines; in fact, the greatest activity and achievements of these Societies is in interesting the children. A careful perusal and study of the work of each Society by the officers of the other Societies, will be of great advantage. Valuable suggestions are thus gained, for a method or idea that proves a success in one locality may prove such in another. The state reports will also prove interesting reading for the general public, and should be a source of inspiration to many persons with means and time at their disposal. No greater civic work can be found.—W. D.

Alabama.—For some time I have been visiting the various sections of the state, and I have been delighted to note the magic effect the new game law has had on the situation in Alabama. No law has ever been enacted that has been so universally respected.

Convictions have been obtained which have had a most salutary effect; reports received by the department showing that during the month of September, there were thirty-nine convictions under the game law. Marengo county, with seventeen convictions, leads all the rest, while Lauderdale comes second with six to its credit. The convictions, by counties, are as follows: Autauga, 1; Bibb, 3; Coffee, 1; Elmore, 3; Escambia, 2; Lauderdale, 6; Lee, 2; Madison, 2; Marengo, 17; Talladega, 1; Tallapoosa, 1. Millard Lipscomb, of Demopolis, heads the county game-warden list for having secured the most convictions for any one month during the year, while Jesse A. Dowdy, of Florence, comes next.

Game and song and insectivorous birds have increased fully 20 per cent, and reckless men and wanton boys that erstwhile slaughtered them have ceased to wage their war of extermination.

I have distributed over 100,000 copies of the game law, and have given the law wide advertisement through the papers.

There has been a large demand for hunters' licenses, and every mail brings in a letter from some probate judge asking for additional license blanks.

The game law has proven a success beyond my most halcyon expectations; all in all, I am much gratified with the result of this legislation.—JOHN H. WALLACE, JR., *Game Commissioner*.

California.—Public interest in bird protection in California has made a most decided increase during the past year. This is in evidence in several ways, and especially by the greatly increased demand for copies of the bird-law leaflet of the Audubon Society, which now comes from almost every part of the state.

The value of birds to the farmer and fruit-grower is receiving much atten-

tion; women's clubs are coöperating with the State Society in efforts to save the birds, and are declaring emphatically against the wearing of feathers other than those of the Ostrich; the press, almost without an exception, is giving splendid support to the cause. Heads of educational institutions, county and city school boards, superintendents and teachers, are alive to the importance of the movement, and are helping on the good work in every possible way. The evil of egg-collecting is greatly diminished, and a more healthy sentiment among bird students, and better respect for the law, has practically put an end to the advertising of eggs and skins for sale or exchange in periodicals published in the state.

In the interest of the game and bird protection a great many thousand acres of both wild and cultivated lands are now closed to hunters, and under the provisions of the law providing for state game-preserves, enacted at the last session of the legislature, many of these holdings, and thousands of additional acres, will be entered under state protection for a term of years. In one locality in Los Angeles county, application has been made for the entry of adjoining tracts of foot-hill land aggregating more than two thousand acres.

The Society has distributed more than 20,000 copies of circulars, leaflets, warning-signs and digests of the bird laws, while several secretaries of affiliating organizations have made large additional distribution of the Educational Leaflets of the National Association. It is probable that we shall double this distribution of printed matter during the present year. Five new Leaflets are already in preparation, including 'The Western Mockingbird,' 'The Passing of the Mourning Dove,' a Leaflet on feather-wearing, and another on the care of aviary birds.

The Society is adding to its series of slides, and will soon have about one hundred pictures, many of them made from photographs of living birds. A good lantern is already assured, and within a few weeks we shall be prepared to give increased impetus to the bird-protective movement by an illustrated talk on western birds, for which there have been many requests during the past year.

The work of the Audubon Society of California during the next twelve months will be largely along educational lines. Efforts will be made to push the work into counties that have as yet hardly been reached. The newspapers and the school teachers are our great and usually faithful missionaries. When other friends have sometimes failed us, the school teacher has always "made good."

While we have accomplished only a little of the work that lay plainly before us at the organization of the State Society less than eighteen months ago, we have good and sufficient reason to rejoice at that which has been done, as well as in the growth of interest in nature-study and bird protection, and especially in the steadily increasing number of splendid friends of the birds that this Society has brought together in an effective organization for a worthy and humane purpose.—W. SCOTT WAY, *Secretary*.

Connecticut.—Our state work, this year, has been largely in the legislature. We appointed a 'Watch-out-Committee' to keep track of the proposed alterations in the game laws, and Mr. Van Name did good work in Hartford in pushing through the Alien License Bill and the Gun License Bill. The Society gave \$10 toward the Bradley monument, and \$15 towards the support of the Bradley children. We spent over \$25 repairing and renewing books for our traveling libraries and \$50 for five new libraries of twelve books each.

We distributed about 6,000 Educational Leaflets sent us by the National Association, and some Leaflets issued by the Department of Agriculture. We have printed the new bird laws on muslin in the English, Italian and Hungarian languages, to be posted throughout the state and among the granges.

We have got an excellent, fearless game warden in our county now, and the Society was glad to give him a mileage book of 500 miles and \$20 toward his expenses, as the state does not give the wardens carfare or stationery and pays little for their time. Warden Smith has created quite a sentiment for bird protection, and aroused an interest in birds all over the county. We append a special report from him.

"Seen from a warden's viewpoint, conditions in western Connecticut are most encouraging. Public sentiment is responding to the educational work of the Audubon Society and an understanding of the economic value of our birds, and the friends of protection can no longer be judged by names on the Audubon roll. Meadowlarks have done well and have been very little disturbed, and it is very rarely that a Gull is killed, and each species is on the increase. The foreign element is still the greatest menace to song-birds, but where personal work had been done in our Italian colony, explaining the laws and penalties, not one has been known to violate the laws this season,—a strong argument for more educational work among them.

"Other places, however, have not been so fortunate, and since May first seven arrests and convictions of Italians, and two convictions of Americans, have been secured for violating the non-game laws,—one for the wanton killing of a Great Blue Heron by an American, who should have known better.

"The new license fee is meeting with general favor, and will be a boom to protection; the \$15 license fee for aliens will prevent a large number of these people from roaming the woods with a gun, and furnish a fund for better warden service."

Our Executive Committee has held several meetings in the year (omitting the three summer months) and there is much interest and enthusiasm shown in the work at these meetings.—MRS. HELEN W. GLOVER, *Secretary*.

District of Columbia.—The work of our Society is planned by the Executive Committee, consisting of the officers of the Society and fourteen other members.

One of the most unique meetings was held in the fall, when, under the able

and interesting leadership of Dr. T. S. Palmer, we visited the bird-house of the National Zoölogical Park and saw many rare birds. That the privilege of this trip was fully appreciated was shown by the large attendance.

Soon after this, we held a public meeting in the lecture hall of the Washington Public Library, whose trustees have, for several years, most courteously placed their hall at our disposal. The speaker on this occasion was Mr. Tylor, of Easton, Md., who gave us some charming glimpses of outdoor life through his camera.

Our tenth annual meeting was held in January, and at this time we met with two great losses in the resignations of Mr. Henry S. Oldys, from the chairmanship of the Executive Committee, and Mrs. J. D. Patten from the secretaryship. Both have been actively engaged in the work of the Society from its inception, and it was with deep regret that we learned that after ten years of most faithful service they felt that the pressure of other duties was too great, and that they must be relieved of active work.

Our most active work is done in the spring, and was inaugurated most auspiciously by the all-too-short lecture of our National Secretary, Mr. T. Gilbert Pearson, on 'Some Results of Bird Protection in the South,' which was most enthusiastically received.

This spring, instead of our usual Bird Class, we held four informal meetings for the identification of bird-skins, under the direction of Prof. W. W. Cooke and several members of the Executive Committee, preparatory to our field-work, which later consisted of five Saturdays given to exploring the country around Washington. For an account of the walks this spring, let me quote from Prof. Wells W. Cooke's most interesting article, published in the 'Washington Evening Star' of May 20.

"The Society has the record that for six consecutive years no one of its five outings each year has been given up on account of the weather. The five trips of 1907 were attended by 112 different persons, the larger part of whom were present at only one meeting. On each trip the members separated into three or four parties, for the better observation of the birds, each party being in charge of some one familiar with the birds of the District. The best trip of the season, from the ornithological standpoint, was that of May 11, when seventy-two species were observed.

"This year the number of species seen was exceptionally large, as compared with other years, and the season was marked by the finding of some of the rarest birds known to this region. A Cerulean Warbler, the rarest Warbler of this district, was seen at Great Falls on May 11, and among other rare birds observed may be mentioned the Summer Tanager, the Golden-winged, Hooded, Kentucky and Worm-eating Warblers, the Red Crossbill and the Black-crowned Night Heron. During the entire season, 112 people saw 113 different kinds of birds, as compared with 96 kinds seen during the five trips of 1906."

It may not be generally known that the residents of the District of Columbia are subject to 'Taxation without Representation,' so that if we want any laws

enacted we must present our cause before the District Committee of the United States Congress. A year or more ago some of us did our first 'lobbying,' coöperating with the Fish- and Game-Protective Association of the District, and were successful in having a bill passed prohibiting all hunting or shooting in the District, except for a limited time, and then only on the marshes.

Our Chief of Police, Major Sylvester (who is a member of both societies), has coöperated most efficiently with us, and during the winter his mounted police have been provided with food for the birds (toward which our Society made an appropriation), which they have carried to outlying districts, and in that way have furnished sustenance for many of the birds during the severe weather. During the last three winters a few Mockingbirds have stayed with us.

We have an adult membership of 240, and our junior members number 98. The close of each year finds our Society farther advanced, both as to membership and finances, and the outlook for the coming year is more encouraging than ever before.—MISS HELEN P. CHILDS, *Secretary*.

Florida.—The Florida Society cannot show any great gain numerically, during the past year, yet, as the interest seems extending in educational lines, it has the courage to continue in its efforts, even while realizing its failure to prevent the illegal shooting and sale of plumage birds, or to secure more progressive legislation for bird protection, thereby hoping to save the existing rookeries from devastation. The following statistics give some indication of our activity: Membership, including all grades, 950; leaflets, circulars, reports distributed, 14,730; summary of the state bird laws for posting, 130; warning-notices, 200; Audubon charts in use of schools, 75 (in Orange county, 40; Manatee county, 25; Duval county, 4; Franklin county, 2; and one each in Gadsen, Lee and Putnam counties); teachers having free membership, 160.

One Leaflet was published this year, making eighteen which have been published by the Florida Society. Two prizes were given for compositions, and four for coloring outline drawings were awarded to children between the years of six and twelve. The weekly hour for bird-study, carried on in the schools at Orange county last year, will be continued, and this year the schools of Manatee county, will follow similar methods. We would especially urge that bird-study be made a part of the course in normal schools, for one great difficulty lies in the fact that no matter how ready teachers may be to instruct the pupils, it is only in exceptional cases they have knowledge of the subject.

The Robert Hungerford Normal and Industrial School, Eastonville (colored) continued its work in bird-study. At the commencement exercises in May, two prizes were given for compositions on 'The Birds of Florida.' In November a book was given as a prize to a member of Mrs. Kirk Munroe's 'Boys' Club,' 'The Rangers.' This year a prize will be given them "for good work in protecting nests." During the winter they are to hold a 'Bird Fair.' President

W. F. Blackman, of Rollins College, writes: "I had the pleasure of speaking at the conference, in St. Augustine, to some four or five hundred teachers and others about the Audubon Society." As a result, the secretary, Mrs. Vanderpool reports "that requests for literature and instruction have come from five new counties."

The auxiliaries at Port Orange and San Mateo have greatly increased the interest in their localities. 'The Palmetto Club,' at Daytona. 'The Fortnightly,' at Palm Beach, 'The Winter Park Fortnightly,' 'The Housekeepers' Club' at Coconut Grove, 'The Friday Literary' at Bradentown, have sustaining or annual members, and are doing active work for bird protection. The Florida Sunshine Society sends into many houses its rays of love and kindness to birds. Mrs. Robert, of Palm Beach, made an especial feature of an afternoon fête, the reading of the National Association's report for Florida. Mrs. E. A. Graves,



GUY BRADLEY'S GRAVE

Photograph by Kirk Munroe

of Ormond, writes of the interest in the 'Village Improvement Club.' Mr. John Anderson, of Ormond, is an interested officer of the Society, while our thanks are given most sincerely to Mrs. Haden, of Orlando, and Mrs. Belknap, at Miami, for constant and efficient service. Mrs. E. K. Anderson, chairman of the Bird Protection Committee of the State Federation of Women's Clubs, reports: "There are fourteen clubs that have special committees on bird protection, and the majority of these have, during the past year, observed Bird Day with appropriate exercises. This year work among the schools will be more generally taken up."

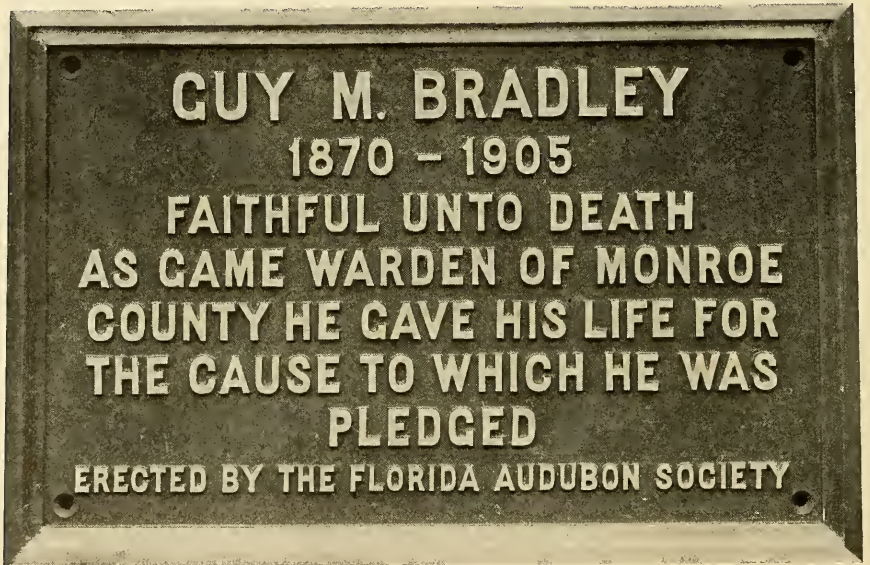
Bird Day was observed by the Orange City Village Improvement Society. The newspapers in the state have been most generous in aiding us, and we have had, as always, the coöperation of the Southern Express Company.

This year, for the second time, a bill to prevent the shooting of live Pigeons

from traps failed to pass the legislature. Letters are frequently received asking if we are powerless to prevent this "cruel and debasing" amusement, but while reading the protest, a morning paper tells us "that the event of the day was a twenty-bird handicap for Mrs. ———'s trophy." It was a close contest, "the birds being fast and the sport fine," for there was a tie between two of the braves," "with 13 kills each, out of 20 birds," and later "a beautiful dinner was served by admiring friends," in honor of one, "killing 14 birds out of 20."

No new reservations have been made in Florida since October, 1906. The reservations, or preserves, now are at Tortugas, Sand Key, Passage Key, Indian Key and Pelican Island, where the launch 'Audubon' is in use.

There have been reports from the South of the reappearance of Paroquets,



TABLET TO BE ERECTED OVER GUY BRADLEY'S GRAVE

and Nonpareils have been noted in certain localities, where for years they have not been seen; while further north an increase has been reported of White Herons Blue Herons, Cardinals, Robins and other birds.

In response to an article by Mr. Julian A. Dimock, in 'Country Life in America' for February, entitled 'Egret Murder,' the sum of \$58 was received by the treasurer of the Florida Audubon Society, Mrs. L. P. Bronson, which is reserved as the nucleus of an 'Egret Fund.' We here publicly thank Mr. Dimock for his interest, the publishers for their coöperation, and the contributors.

In a letter written by Mr. Kirk Munroe, April 15, 1906, he says: "I have just returned from a cruise to Cape Sable, where on account of proximity and association, I was roused to a great interest in the Bradley case. Last Monday

Mr. Ingraham and I visited his grave, in a cocoanut grove, on the point of East Cape Sable, overlooking the broad waters that he strove so faithfully to make safe for the feathered life that beautified them. The grave is on a shell ridge beyond reach of the highest tide, and itself a mound of pink and white sea-shells." Mr. Munroe then suggests that the Florida Audubon Society erect a memorial tablet to mark this grave. Acting on this suggestion the Executive Committee voted to do so. While plans were being made, a request for contributions for the same object was proposed by Mr. Dutcher in the National report for October, 1906. Through the kindness of Mr. Dutcher, \$16 sent him by various contributors was given to the Florida Society to add to their funds and an appropriate bronze tablet affixed to a headstone will mark the spot where the body of Guy M. Bradley lies. A letter from Mrs. E. R. Bradley reads: "The tablet in memory of our dear son is received. We thank all the kind friends who have united in getting it." The tablet, which is of bronze and measures twelve inches by eighteen inches, is reproduced herewith.

To Mr. Kirk Munroe and to contributors especial thanks from the Florida Society are due. — MRS. KINGSMILL MARRS, *Chairman of Executive Committee.*

Illinois.—The Illinois Audubon Society entered its second decade April 1, 1907. Of its present directors, five have been members of the board for the ten years of the Society's existence. Two general meetings have been held this last year; one in December with Mr. W. L. Finley, as speaker, and the annual meeting in May, when Prof. Francis Herrick spoke on the 'Nest Building and Life of Wild Birds.'

No Leaflets have been published but a Migration Record for Schools has been printed and is being sent to teachers. Several of the directors have done good work in some of the Chicago schools and migration records, charts and Leaflets have been given by the Society in some cases.

The excellent work done in many of the schools of the state is increasing, being largely due to the interest in birds of many teachers and a few of the county superintendents. In some of the counties, every school in the county observed Arbor and Bird Day.

In the annual letter of the secretary in the Arbor and Bird Day Annual, the subject of Government Reservations for Bird Protection was treated and the suggestion made that the children consider their school grounds as 'reservations' and themselves as 'wardens.'

At the meeting of the Illinois Federation of Women's Clubs last October, largely through the efforts of Mrs. Frahe, the president, a resolution was adopted, placing the State Federation on record as against the wearing of feathers. Mrs. Decker, president of the General Federation, was at the meeting and through the kindly offices of herself and Mrs. Fletcher, chairman of the Outlook Committee of the General Federation, and after correspondence with Mr. Dutcher and the secretary of the Illinois Audubon Society, the subject of Audubon work

was considered at the meeting of the directors of the General Federation held last June; the results being that Audubon work was made part of the duties of the Forestry Committee.

At our annual meeting, the president, Mr. Deane, stated that some of the largest wholesale and retail millinery dealers in Chicago had assured him that there was a great decrease in the sale of feathers. Another encouraging statement was that the local Millinery Association, under the leadership of Mr. Bode (a warm friend of the birds) had practically agreed to conform to the main principles of the Audubon Society.

At the session of the state legislature last winter, some improvements were made in the game laws. The open season for Woodcock and Mourning Doves is shortened a month and the day's 'bag' for Ducks and water-fowl is reduced from thirty-five to twenty, and for Quail and other game-birds, from twenty-five to fifteen. A backward step is the passage of the bill offering a bounty on Crows and their eggs. This was passed in spite of the remonstrance of the State Game Commissioner and the Audubon Society. An effort will be made to repeal this bill.

The secretary of the Farmers' Institute, Mr. H. A. McKeene, has recently issued a valuable article on bird protection, which is being widely circulated in the state. At the state meeting of the Institute last winter, a strong resolution was passed against the killing of Quail, Prairie Chickens, Pheasants or any common bird, and also asking the legislature to pass laws forbidding Sunday hunting. One of our directors, Mrs. E. S. Adams, has recently assumed charge of a department on Audubon work in 'School News,' a paper that reaches many of our teachers. The 'Prairie Farmer,' Mr. C. P. Reynolds, editor, is also giving part of its space to bird subjects. The Society has sent out during the year, through its Senior and Junior Departments, 10,122 Leaflets.—Miss MARY DRUMMOND, *Secretary-Treasurer*.

Indiana.—For the past year the regular work of a State Audubon Society has been carried on in this state much as in others. Perhaps this report would be more useful if it told of some of the ways of work we have found most helpful, rather than of routine and general work.

The school authorities, from the Superintendent of Public Instruction to the kindergarten practice teachers, are awake to the value of bird-study in the schools, and the Bird and Arbor Days are observed with real enthusiasm. The teachers work directly with the materials in hand; during the heavy snows of last winter, school children in various parts of the state were feeding the birds and reporting on what they saw was an absorbing part of their school work.

Today, in many of the schools of this city, the pupils are carrying the infested branches of trees and nests of caterpillars to school with them, that the pests may be destroyed. They understand that the birds are gone, and so it becomes necessary for some one else to do the birds' work, and this unusual invasion

of caterpillars is turning out to be an object-lesson on the value of birds that will stay with these pupils a long time.

An Audubon worker was asked to write a bird letter, requiring an answer, to certain grades of pupils in the city schools. The work was primarily an exercise in letter-writing for the pupils. The bird letter was printed and put into the hands of the pupils, resulting in thousands of replies telling of childish experiences with the birds, and showing that even the smaller pupils have an intelligent appreciation of bird-life.

The schools recognize the usefulness of the Audubon work to such an extent that the annual meeting is eagerly desired by many of the cities of the state, although four sessions are already held; two evening sessions, one afternoon session in one large assembly hall especially for the older pupils and the teachers, and these meetings are always crowded. However, the most interesting work is that of the morning. All available bird speakers are pressed into service, and bird talks are given in every school in the place. Even the tiniest tots want their bird talk as was shown last March, when a small room, used for the overflow of kindergarten pupils, was overlooked. The teacher was overheard to say that her babies were almost crying, so disappointed were they at missing their expected treat, and the tired visitors insisted on giving the little ones their talk, after all.

We have been fortunate in having the opportunity of entering upon a field of work which is peculiarly welcome to our members. Mr. William Watson Woollen, one of our charter members, some years ago became impressed with the fact that with the increase of population many of the native birds and flowers were driven away because of the disappearance of their special haunts. Feeling the necessity for a place where the native life might be fostered and preserved for the pleasure and study of the present and future generations, he purchased a tract of land, not far from Indianapolis, comprising creek bottom, upland and woodland. This 'Buzzard's Roost' affords an ideal place for many kinds of birds that are fast disappearing from Indiana, as well as protection for those that are abundant. It is preserved for the trees, birds and flowers, and will eventually be given to Indianapolis to be held for this purpose. Mr. Woollen desires members of the Audubon Society, and all nature-lovers and students, to make use of this out-of-doors. The hope is that, through the influence of the Society, like refuges for wild life may be established in many parts of the state.—
MISS FLORENCE A. HOWE, *Secretary*

Iowa.—The appeal made by the chairman of the Outlook Committee of the General Federation of Women's Clubs, Mrs. J. T. Fletcher, of Marshalltown, to all club women to take action and sign a pledge in regard to the use of the egret and feathers of wild birds, was strongly endorsed, and the members of the Audubon Society will present this pledge in connection with the Audubon pledge to many organizations of women's clubs in the state. The Society will

also take steps to post warning notices wherever and whenever necessary for the enforcement of the Model Law.

During the year the following literature has been distributed: About 500 circulars on the 'Value of Birds to Agriculture,' at farmers' institutes, 800 copies of the Model Law, as passed in Iowa in 1906, and 3,000 National Association Leaflets to teachers' institutes, Chautauqua meetings, etc. Many circulars and National Association Leaflets have been sent on request to members of women's clubs, superintendents of public schools, and teachers in general.

In spite of the fact that there seems to be a strong sentiment in favor of bird protection in Iowa, there has been only a slight increase in membership during the past year, and it is still difficult to secure local secretaries or active workers who take more than a passing interest in the protection of bird life or the enforcement of the Model Law.

School children, in kindergarten and primary grades, are being well instructed concerning birds, and are encouraged to study the many phases of bird-life in their natural haunts by actual observation, as well as from books and charts which are quite liberally provided.

Prof. John E. Cameron, of Kansas City, Mo., recognizing the need of preparing the teachers for this work, has given numerous lectures in Iowa, at teachers' institutes, on bird-life, illustrated by a series of stereopticon views. He believes that there are enough strange things in nature to interest and surprise the young without conjuring up a lot of things which are not true. About three hundred pictures, many of which were finely colored, were flashed upon the screen, showing the many varieties of song-birds and others found in the beautiful fringe of woods along the banks of rivers and lakes of Iowa. Professor Cameron's discourse was helpful and full of practical information, and withal inspiring a love for the feathered creatures of the air. The Agricultural Department of Farmers' Institutes has also been active in securing illustrated lectures along this line, and in this manner educating the farmers as to the value of birds in farm life.

The members of the official board are constantly in receipt of invitations to give talks on bird-life at public gatherings. Mrs. W. B. Small, president, represented the Society and delivered an address at the meeting of the Iowa Federation of Women's Clubs, in Oskaloosa, in May. Dr. Margaret Clark, chairman of the Executive Committee, on several occasions has been called to give impromptu talks, and the secretary has received and accepted an invitation to read a paper at the meeting of the Iowa Park and Forestry Association, to be held in Des Moines in December.

Mr. Enos A. Mills, of Estes Park, Col., who is sent out by the Government in the interest of forestry, will speak of the value of birds to forests in the lectures which he will give this month in Des Moines, Marshalltown and Waterloo.

We are greatly in need of workers in Iowa, who will act as local secretaries,

secure members, distribute literature and pledges, post warning notices and attend to legislative work.

Pledge adopted by the Iowa Audubon Society:

"I HEREBY PLEDGE MYSELF, To refrain from wearing the plumage of birds other than game-birds, domesticated fowls or the Ostrich; To discourage the destruction of wild birds and their eggs; To encourage the study of birds and nature in schools."—MRS. WILLIAM F. PARROTT, *Secretary*.

Louisiana.—As a direct result of the activity of the National Association of Audubon Societies on the coast of Louisiana, fully 75,000 Royal Terns, Forsters Terns, Black Skimmers and Laughing Gulls were, during the past season, added to the stock of birds living on the Gulf coast.

This year has been a fatal one to the birds. Just at the height of the breeding season on, May 30, an unprecedented high tide submerged almost all the breeding islands. The consequence was that, instead of the 250,000 birds which we expected to show to the credit of the National Association, only a fourth of that number were raised. If it had not been for the warden service maintained by the Association, the birds would also have suffered severely at the hands of the pirates and egg-stealers haunting these waters. Under the circumstances, and until our State Society is in a position to assume this responsibility, we sincerely trust that the National Association will maintain the present warden service, and, if possible to do so, extend its limits and usefulness.

On the east side of the Mississippi river our State Society controls a bird-breeding area of land and water approximating 750 square miles. On the west



AUDUBON PATROL BOAT NO. 4, ROYAL TERN
Employed to protect birds on the Gulf Coast

side of the river there is a breeding area of probably the same extent which, up to the present time, has never been patrolled by a warden, with the result that during the breeding season boat-load after boat-load of birds' eggs are taken from the islands without let or hindrance. This condition of affairs will continue until the National Association extends its activities to those regions by appointing wardens who will see to it that the efficient provisions of our state law are carried out to the letter, and the birds permitted to breed in peace.

At the request of the president of the National Association, our Society made an investigation of the local quill trade. We found the retail millinery establishments of New Orleans carrying large stocks of Pelican, Eagle, Hawk and Owl quills. Many arrests were made, and as all the cases were decided in the courts against the dealers and in our favor, the quill trade has been broken up.

By far the most important event which our Society has to chronicle during the past year is practically two decisions of our state supreme court, affirming that the Model A. O. U. Law enacted by our state legislature is within constitutional limits.

From all this, it will be seen that the Louisiana Audubon Society is carrying out the aims and purposes of its organization, and in our state we not only have laws which protect the birds, but we are also enforcing them so effectually that traffic in birds and birds' plumage has almost ceased.

Recently we bought another breeding island (named Sundown Island), making the nineteenth. With the seven islands of Breton reservation belonging to the Federal Government under our control, we lay claim to having the largest wild-sea-bird-breeding area in the world, and we expect in a few years, through the aid of the National Association, to show the greatest sight in bird-breeding that has ever been seen.

Last year President Roosevelt sent us the following message: "Hearty congratulations to the Audubon Society of Louisiana."

This year, when Newton C. Blanchard, the Governor of our state, signed the deed giving us title to an island (Battledore) sold by the state, he sent us the following message: "Use sparingly of the game-birds, even within the permit of the law. Protect from destruction altogether the non-game birds,"—in which sentiment we all heartily concur.—FRANK M. MILLER, *President*.

Maine.—The local secretaries remain the same as last year, and the membership nearly the same, consequently the work of the local societies has been chiefly educational. On the other hand, the work of the state secretary has been chiefly militant, dealing with legislation, attending to a few complaints, and furnishing information and laws concerning birds. Much of the latter work cannot be separated from that performed at the direct instance of the National Association, yet the value of the state organization should not be overlooked. Very gratifying relations have been developed between the Society and the 'Brotherhood of Sportsmen.'

Through the generosity of the National Association a set of fifty colored lantern-slides, belonging to the equipment of the Society, are to be made an important feature of the coming winter's work.—ARTHUR H. NORTON, *Secretary*.

Maryland.—The Maryland Audubon Society is but an infant in age, having celebrated only one anniversary. There had previously been an Audubon Society in the state, and I am sure that much plowing and sowing must have been accomplished by this senior society, for there is now manifested a great interest in bird-life, and a strong desire to protect and cherish these little creatures which are truly living poems set to music; so, perhaps, the younger organization will reap an abundant harvest which will be the result of former pioneer efforts.

The membership of the present Society is growing. The law of its growth is very simple,—each bird-lover interests his or her friends by talking to them of the birds, their beautiful home life (so analagous to that of the human family), the pleasure they give by their songs, and their great assistance to agriculture. Enthusiasm is contagious. Those who were formerly indifferent begin themselves to study, and find the subject so alluring that they soon become ardent admirers and lovers of their "little brothers of the air."

The president, Mrs. Charles W. Lord, has both by her pen and charming talks shared, with others, the delight that her bird neighbors have contributed to her own life. The vice-presidents were selected from men who are prominent in the educational and commercial interests of the city.

The chief aim of the Society is to enlist the coöperation of the children. To this end, bird clubs are being organized in the public schools, and the eager response of the boys and girls is cause for the greatest encouragement. A debt of gratitude is due Professor Van Sickle and the Nature Committee of the public schools. The systematic study of birds is a part of the curriculum. Children are also encouraged to make charts recording their observations. This has a great practical value. That destructive tendency in the child which impels him to throw the stone is thus checked and diverted; more than that, it is converted into a constructive channel. We hope to see the day when the field-glass and camera will be considered satisfactory substitutes for the gun.—MISS MINNA D. STARR, *Secretary*.

Massachusetts.—During the past year rather more deaths and resignations than usual were reported, but enough new members came in to more than balance the loss. Our membership is now 6,549. Of these 1,934 are Juniors, and 116 local secretaries.

Our four traveling libraries have been in use where they were appreciated. Educational and other Leaflets, including cloth warning-notices and copies of the law, have been distributed freely. Our three traveling lectures, bird plates, charts and calendars, have been in good demand.

We have decided not to issue new plates for the 1908 calendar, but to use the same plates we had for our 1906 and 1907 calendars, giving patrons a chance to buy either set. These are the plates that were printed in Japan.

A Bird Class, under the leadership of Mr. C. J. Maynard, was substituted for the usual lecture course. Besides the regular monthly meeting of the Board of Directors, a successful public meeting was held, with Mr. Ralph Hoffman, Mr. Edward Howe Forbush and Dr. George W. Field as speakers.

Legislation at the State House was closely watched, as usual, by our Protection Committee, and complaints of violations of law received were reported to the state officers, the Fish and Game Commission. The Society works closely in touch with the State Board of Agriculture and the Fish and Game Commission.

An Italian gentleman, who has become interested in our work, has written us an excellent warning poster and leaflet in Italian, with which we hope to do some effective work. The poster is also used by the Fish and Game Commission.

A report of our work for the past five years is being prepared by the secretary.—MISS JESSIE E. KIMBALL, *Secretary*.

Michigan.—The Michigan Audubon Society began the year with much trepidation, not only fearing the meeting of the legislature, but also the sportsmen and farmers who had bills to offer, which if they became laws, would undo much of the work of our Society. The legislature remained in session until June. During the session bills were introduced to pay bounties on Kingfishers, Great Blue Herons and English Sparrows. A bill for a bounty on 'Chicken' Hawks was urged by farmers. The Society opposed these measures vigorously. The bill for a bounty on Kingfishers and Great Blue Herons passed the House, but the Senate Committee did not report it. The Audubon Society was responsible for the defeat of the Hawk bounty by taking advantage of a dilemma.

We insisted on knowing what was meant by 'Chicken' Hawks. Those urging the bill asked many authorities, but were unable to ascertain with any certainty. During the time discussion was taking place, we sent all the literature concerning the value of Hawks we could secure. Dr. Merriam's statement as quoted in Mr. Chapman's preface to the 'Birds of Eastern North America,' concerning legislation on Hawks in Pennsylvania, did more to halt the legislature than any other literature presented. A number of sportsmen desired the Meadowlark to be put on the list of game-birds. Our Society aroused so much sentiment on this question as to have it passed over by the Game Committee. We also strenuously opposed a proposal to lengthen the season for spring shooting. We opposed a bounty on English Sparrows, but finally withdrew our opposition with the understanding that bounties would be allowed during the winter months only. The bill passed with such restriction.

We increased the prohibition of Sunday shooting to two more counties, and found such a strong sentiment among the members of the legislature from the agricultural districts against Sunday shooting that we felt if they had had a

leader on this question, a bill would undoubtedly have passed prohibiting Sunday shooting throughout the state.

The Michigan Association, composed of sportsmen, was organized for game protection, including song and insectivorous birds. The Audubon Society joined forces with the Association, and urged the Association to request the legislature to let game matters rest until they had time to canvas the situation in the state, and make recommendations, which could not be done before the meeting of the legislature in 1909. The officers of the Association made such a request.

The work of protection has made favorable progress in the state, the educational institutions showing increasing interest in the subject. The secretary prepared a booklet of one hundred and fifty pages on Audubon work. One thousand copies were printed, but the request from colleges, schools, libraries and public officials for copies was so extensive that it would have taken three times as large an edition to supply the demand. This showed an interest that surprised the Society, especially since requests came from all portions of the state.

By reason of a contribution from the National Association we were able to attend and aid in the formation of the Michigan Humane Society, composed of the various societies of the state that carry on humane work for the protection of children, animals, and of animate life generally. Our Society became a constituent member of the State Humane Society. Also, with aid from the National Society, the secretary was able to take advantage of invitations to address educational meetings and academies in various points in the state.

The Society was, to some degree, instrumental in bringing about a change in the game warden system. One of the state deputies, who blocked our efforts to prosecute violators of the game law, was removed, and another appointed in his stead who has proven himself worthy. This new deputy, Mr. William Daniel, has been in consultation with the secretary at various times, and has been ready to hear complaints coming to our Society from various territories in his jurisdiction, and has acted on the same. We are expecting improved conditions from the new State Game Warden, Mr. Charles Pierce. All things considered, we feel that the year has been one of advancement for Audubon work from the moral and intellectual standpoint, though financially, we have made little progress.

Our Society has offered a series of three prizes to the school or Society doing the best work in bird protection. The prizes have been selected and we are now waiting for reports.—JEFFERSON BUTLER, *Secretary*.

Minnesota.—As in former years, for want of sufficient funds our work has been somewhat circumscribed. We have, through the kindness of the National Association, been able to distribute several thousand Leaflets, which mostly have gone to the border counties and schools of our state. We have also helped

northern Iowa and western Wisconsin to a certain extent. We have heard of the results of the distribution of this bird literature in many cases, with results exceedingly satisfactory to this Society.

It has helped to get a number of branches organized in the smaller towns, and has interested a large number of teachers in the public schools, who have formed bands, and in this way started an education of the young people, which ought to make good adult protectors for our wild birds later on.

We have taken up a work in our large towns, which seems to need attention, and which I have not heard mentioned before. We have found that the shipping of small birds from abroad in small cages, four or five inches square, has become a large industry in our principal cities. We have found that these birds, after arriving here, were kept in these cages, which were filthy and too small for any exercise of the inmates, and that the food given them was thrown into the dirty cages. We have insisted that these birds all be changed into larger cages, giving them more freedom, better air, and cleaner food and quarters, and also have insisted that these cages be kept clean. We had a law passed in our legislature two years ago which would enable us to enforce such a demand. I am somewhat curious to know whether like work has been taken up in any of the other cities or states.

We also arranged with the State Humane Society, and the local branches, to post the country with circulars, giving information to the people that the killing of song-birds and the destruction of their nests is, under our law, a penal offence, and also, offered a reward for the detection and the conviction of any one infringing this law. This, I believe, has done more good, and reached more people and protected more bird lives, than anything we have been able to do as a Society.

I think I may safely say, that although we have not made much noise, we have accomplished more work during the last year than any previous year, that our membership is steadily increasing, and that our work is having a decidedly good effect, especially upon the young people. The almost total disappearance of birds worn as ornaments is one of the flattering results of our law, as is also the agreement of our millinery jobbers to discontinue the sale of mounted birds.

The last few years have certainly, through the influence and hard work of the National Society, accomplished wonders. We feel today as though we would like to be financially strong enough to establish a branch in every county, and flood the whole state with bird literature.

The writer, upon a late occasion in conversation with a farmer, was told the following: "We were sowing a field not long ago, and my two boys noticed a flock of birds following after the seeder. They made up their minds that the birds were eating the grain, so they got out their shot-guns and killed quite a number. I was curious to see how much grain one of these birds would eat, and upon opening the crops of several, I was astonished to find that they were full of fresh worms, but no grain. I told my boys that if I caught either one of them

shooting birds on the farm, or allowing anybody else to do so, I should make an example of them. I had learned a lesson."—J. W. TAYLOR, *President*.

Missouri.—I regret to say that the work of the Audubon Society in Missouri, which for four years has been active, encouraging and full of practical results, has met with a set-back, which may, for some years to come, prove in a manner, disastrous. The Audubon bill for preservation of birds and game, which was passed at a previous session of our legislature, has been attacked successfully by its enemies in the halls of legislation. Influenced by politico-commercial reasons, the very life of the bill or law has been weakened by an amendment abolishing the offices of game warden and deputies, and substituting therefore the sheriffs and deputies of the different counties. No argument is necessary to show that sheriffs and their deputies will not enforce this law among their friends and neighbors, and that without independent game wardenship the law cannot be enforced at all. To the disappointment and astonishment of the officers of the Audubon Society, and of the sporting clubs over the state, the Governor approved the iniquitous amendment, despite protests from all sections. The basic work of the Audubon Society, however, remains, but years will be required to build again the structure thereon which this pernicious amendment has destroyed. I regret that I cannot give a better report of the present condition of Audubon work in Missouri.—WALTER J. BLAKELY, *President*.

Nebraska.—How I wish that the Nebraska Society might send a long and interesting report to the National Committee this year, instead it must be but a word or so. Lack of funds and heavy personal cares have prevented the officers from carrying forward plans for a more thorough state organization.

The work done this year, as every year since our organization, has been with the younger generation. The Audubon sentiment is strong in the public schools of the state. The State Superintendent of Public Institution fosters it in every way. Increase in sentiment toward bird protection is noticeable, in a general way, among educators, farmers and school children.

The work of the National Association among the farmers has wrought a marked change in this state, but the conscience of women in the matter of millinery is yet to be awakened.—MISS JOY MONTGOMERY HIGGINS, *Secretary*.

New Hampshire.—The very full report for 1906 renders needless any special reference to our routine work. In the legislature a bill was passed making a closed season for five years on Wood Duck and Upland Plover. This action places New Hampshire in the van, alongside with Massachusetts, in the movement for the preservation of these fast-vanishing species.

With the coöperation of Mr. William Dutcher and Mr. Abbott H. Thayer, we have issued warning posters concerning protected birds in general, and Wood Duck and Upland Plover in particular. Besides being distributed for use as

roadside posters, they have, with the consent of the Post Office Department, been sent to all the postmasters in the state with requests for their display.

Through the influence of our Society, the following lectures have been given during the past season before the Manchester Institute of Arts and Sciences: 'Among the Island Water Birds,' by William L. Finley; 'Song Birds of New Hampshire,' by F. Schuyler Matthews; 'Among the Egrets with Warden Bradley,' by Herbert K. Job, and 'Useful Birds and Their Protection,' by Edward Howe Forbush.—MRS. F. W. BATCHELDER, *Secretary*.

New Jersey.—While the interest in the Audubon Society of New Jersey as a Society may not have increased materially during the past year, the interest in birds does not seem to be declining. New members come in slowly, but we hear of bird-lovers in all directions, and this general interest as a result of more wide-spread education is again in the right direction.

The legislative work done by the Society, and by the National Association, in New Jersey has been an important one, as a vicious bill was killed which ordered the transfer of the Dove and Flicker to the game-bird list. Vigorous measures were taken by the Society to pass an important anti-spring shooting bill for the wild fowl and shore birds. Although the House passed this bill, it was held in committee by the Senate, and killed there by a vote of two to one. As usual, the friends of a bad cause were more active than those on the side of righteousness, for at the hearing in the Senate few presented themselves to urge the protection of the birds.

In this respect New Jersey is a stumbling-stone, and a rock of offense to all the neighboring states who send their sportsmen to destroy our shore and other birds.—MISS JULIA S. SCRIBNER, *Secretary*.

The La Rue Holmes Nature Lover's League.—An aggressive movement in behalf of birds was recently organized at Summit, New Jersey, through the ardent love for nature of a young naturalist, whose brief career was closed when but just entering upon this field of loving service. Organized in July, 1906, an executive board, together with directors, chosen from various localities, form a central organization with the power to create chapters in neighborhoods and schools. The present membership, which reaches about fifteen hundred, chiefly among the young, will shortly be materially increased by the addition of chapters about to organize.

Closely allied in interest to the Audubon Societies, whose Bluebird badge is also the League emblem, the Audubon Leaflets have, during the past year, been distributed monthly for study in schools wherever organizations exist. Additional advantage will arise, in the coming year, through the universal writing of essays each month in connection with this study, and also through the increased use of the colored and outlined Audubon Leaflets.

Nineteen of the forty lectures and addresses given during the recent past

in the interest of birds, forest and wild flowers, were presented through the courtesy of the National Association, Mr. William Dutcher being the first speaker after the first conception of the movement; and Mr. Beecher S. Bowdish, in his many lectures, quickening the interest in, and love for "our little brothers of the air," through his words and the presentation of his very beautiful lantern-slide-pictures.

The basis of the League is the sentiment of kindness,—a gentle consideration for the weak—a sentiment which creates a co-partnership among its members in defending each remnant of passing nature; which awakens to a conscious joy in the act of relieving suffering, or of creating content in behalf of even the most humble form of God-given life.

During the past year it has been the interest of the League to awaken energy in conserving nature's riches, accentuating its necessity through press notices, addresses, and the distribution of about four thousand Leaflets in the interest of our passing birds, forests and flowers of the wilds.

While it is too true that nature must recede before the advancing step of civilization, it is also true that a universal love and unselfish consideration for the fair wings of the air, the blooms scattered under foot, may save for future generations at least a remnant of the vanishing pageants of the year.

New York.—Less work of an initiative nature has been undertaken during the past year than heretofore. Slowly and quietly, however, the educational effort goes on, and the fruits of such work as many of our faithful local secretaries are doing, the future alone can show. The teachers are interested throughout the state. Many reports are received of successful boys' clubs, and of these it is always a pleasure to hear and to help in every possible way. The distribution of thousands of Leaflets and of wall charts, upon application, has been continued. Our present membership is 8,770.

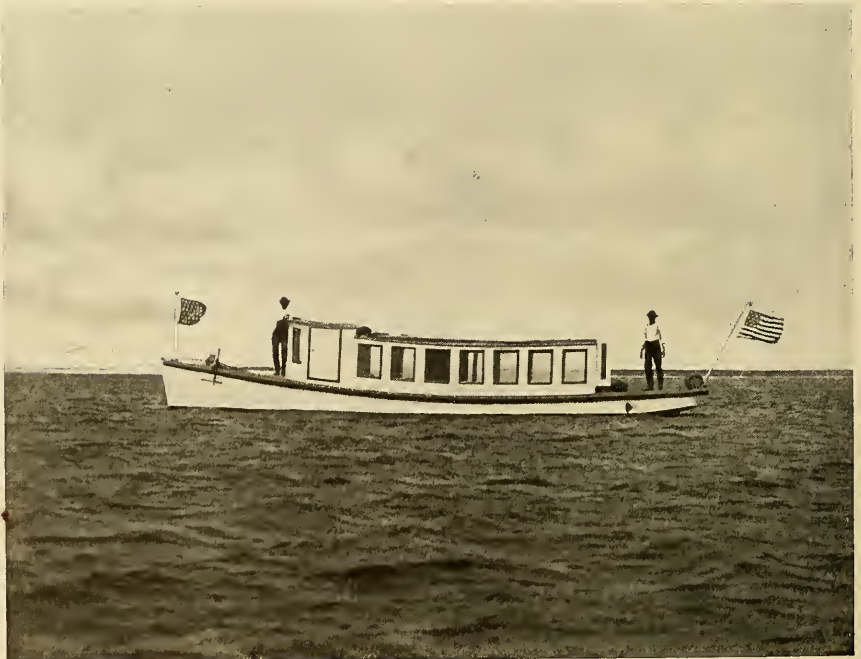
In regard to legislation, this has not been an idle year. Mr. Dutcher, as president of the National Association, was the instigator of two bills in behalf of bird protection; one to prevent the sale of wild fowl after the commencement of the close season (allowing dealers ten days only in which to dispose of surplus stock); the other bill was to forbid cold storage of any birds or game. In spite of the fact that the aid of Audubon workers in all parts of the state was solicited by means of appeals issued by Mr. Dutcher, and sent out by the New York Society, and every effort made to secure the passage of the bills, they were never reported upon by the committees to which they were referred. On the other hand, the attempts to pass dangerous Foreign Game Sale bills were frustrated by Mr. Dutcher's vigorous action.

The matter of most concern to the Society, as is shown by the great number of complaints received, is the shooting of small birds, especially Robins, by Italians. The law posters may be distributed as widely as possible, but this does not deter the law-breakers. More stringent measures are needed; more game

wardens should be appointed. In some cases our local secretaries are very energetic in having offenders brought to justice, and, possibly, in no way is the change in public sentiment in regard to bird protection more clearly shown than by the fines which are imposed upon such offenders.

Our local secretaries are, many of them, devoted to the cause, and either by personal effort among the farmers, or by constant work with the children in the schools, or by interesting editors of local newspapers, are continually extending the circle of the Society's influence. The towns which give promise of future activity, newly brought into the fold, are: Mount Vernon, Chappaqua, Bedford, Orangeburg, Central Valley, Franklin, Berlin, Schuylersville, Fonda, Gloversville, Waterville, Binghamton, Union, Homer, Auburn, Weedsport, S. Lansing, Keuka Park, Canandaigua, Naples and Houghton. New fields of work yield much fresh enthusiasm, and with the hope which 'springs eternal' in Audubon work, we look forward to the coming year with new courage, and the anticipation of important gains.—MISS EMMA H. LOCKWOOD, *Secretary*.

North Carolina.—Audubon work in North Carolina has been moving forward in a most satisfactory manner the past year. During the session of the legislature about sixty game laws, chiefly of a local character, were enacted. These, without exception, were of a restrictive character, usually making



THE 'DUTCHER,' PATROL BOAT OF THE NORTH CAROLINA
AUDUBON SOCIETY



ROYAL TERNS ON AN ISLAND OWNED BY THE NORTH CAROLINA
AUDUBON SOCIETY

the hunting season shorter, and in some instances protecting game in certain counties absolutely for a term of years. A few bills of an adverse character to bird and game protection were introduced, but these were all killed. The general sentiment of the legislature seemed to be very friendly to the Audubon Society and its work.

During the year, sixty-five game wardens have been employed. These men have posted thousands of cloth warning-notices and distributed a large number of Leaflets of the National Association, and also those published by the State Society. We successfully conducted seventy-five prosecutions in the state courts for violations of the bird and game protective laws, and, in addition to this, caused twelve arrests where evidence was not sufficient to convict. Persons were fined not only for killing game out of season, but also for killing Night-hawks, Mockingbirds, Cardinals and other non-game birds protected by the Audubon law.

The work of caring for the breeding-places of the sea-birds on the North Carolina coast has been conducted with great care the past summer, with the result that over 10,000 young sea-birds were reared on the rookery islands. This increase was secured despite the fact of hard storm-tides, and one severe hail-storm which destroyed not less than 3,500 eggs and young birds. The largest of the breeding colonies are located on Royal Shoal and Legged Lump. During the year both of these islands have been purchased by the Audubon Society,

in order that we might be in better position to protect them and their feathered inhabitants.

An addition has been made to the office force in the person of Miss Mary T. Moore, who, as school secretary, divides her time between the work of the State Society and the National Association. During the summer months she lectured on the importance of bird preservation to the farmers' institutes in twenty-four counties, speaking to over four thousand six hundred people. When the schools opened in the fall, she began her work with the school children and teachers interested in nature study, and has been the means of greatly increasing the list of teachers who are using the Audubon literature in the schools.

Interest in the protection of wild life in the state is growing rapidly, and one of the evidences of the effectiveness of the Audubon Society work, as frequently quoted by sportsmen, is that there are more Quail in the state this year than ever before, and, by general observers, to the effect that song-birds are by far more numerous than a few years ago.—T GILBERT PEARSON, *Secretary*.

North Dakota.—With the opening of the spring of 1907, the Audubon Society of North Dakota adopted the following plans, with the hope of arousing a general interest in birds and their protection. First, evening meetings were held fortnightly, to which the public was invited, and at which papers on various phases of the work were read and discussed. Among the subjects treated were the previous work of the Society, methods of bird observation, birds of the Red river region, spring migration of 1907, etc. At each of these meetings members reported on migration, nesting, etc., and the results were tabulated for permanent record.

Three weekly field excursions were undertaken, and consisted of a Monday morning class, especially designed to interest university students, but open to all adults. There was also a Thursday sunset class, to which all were welcome, and a Saturday morning class, intended primarily for children. Each excursion was in charge of one of the more experienced members of the Society.

An attempt was made to organize local societies throughout the Red river valley, that the birds of the locality might be more systematically observed. The effort will be continued until such societies are formed.

The membership in this state is small, but contains a number of real bird-lovers, and we hope as the state increases in population to greatly enlarge the scope of our work.—MRS. A. G. LEONARD, *Secretary*.

Ohio.—The meetings of the Audubon Society of Ohio are still the charming gatherings they always were, and as we had no lack of interesting speakers and many exhibitions of choice specimens in the past year, we feel that, personally, we have gained much. Mr. Finley's talk, with stereopticon pictures, was, without doubt, the 'pièce de resistance,' and we hope to have the pleasure of another such treat.

Mr. Charles Dury, our eminent naturalist, did much to make the last year's series of meetings a memorable one, and as he discovered a unique specimen in his collection of birds of this vicinity, he has added one more name to the fauna of Ohio. He had taken the specimen at Ross Lake, April 5, 1880, and after having overlooked it for twenty-six years, discovered recently that it was a LeConte Sparrow.

Thanks to Mr. Hodges, Librarian of the Public Library of the City of Cincinnati, we had exhibitions of current literature at each meeting, with a short talk by Mrs. Hermine Hansen, teacher of Zoölogy at Hughes High School, explanatory of each volume or pamphlet of such literature.

The president and secretary conferred with Dr. Dyer, the Superintendent of the Public Schools of Cincinnati, about the distribution of Educational Leaflets. Dr. Dyer was very enthusiastic, and thought the Leaflets should not only be distributed to the various schools, but were worth permanently preserving. He advised our sending them to him in October, carefully arranged, so they may be used as a part of the curriculum. This, we hope, will stimulate the students to organize bird clubs, and that the coming year will see many of them established.

We had a number of interesting field excursions this spring, and expect to have many more next year, so we may have some personal experiences, as well as the reminiscences of others, to remember and to record. Our enrollment is increasing, our members are never lacking in enthusiasm, and we all look forward to next year's meetings with delightful anticipation.—Miss M. KATHERINE RATTERMANN, *Secretary*.

Oklahoma.—The work of the Society for the past year, though seemingly local, has been far-reaching in its results. About three thousand pages of literature have been distributed among the teachers, pupils and farmers of the territory, and while as yet but few auxiliary societies have been organized, the foundation has been laid for more and better work in the future, and permanent organizations throughout the new state. Bird-study has become a part of the common school curriculum in some of our schools, and public sentiment in favor of birds and their protection has been created all over the territory, which will surely crystallize into stringent and effective laws at the next meeting of the legislature.

Farmers' unions have taken effective action for the prevention of pot-hunters and others from killing or trapping the Quail, the Mourning Dove, the Meadow-lark and other birds,

Guthrie, the capital of Oklahoma, has enacted strong and effective laws to prevent the killing or trapping of birds, the robbing of their nests, or the exposure or sale of bird eggs within the city limits.

Two years ago one might have traveled all over a county and heard little or nothing said about birds, their value or protection; but today one can enter scarcely a farmhouse, a schoolhouse, or meet with any assembly of country

folk, that the subject of "our birds" is not at some stage of the conversation the main topic, especially among the young people, who enquire eagerly for the Audubon Leaflets, which are proving to be of much educative value, quickening the observation, and awakening an interest in all our feathered friends, and creating a thirst for more knowledge of them.—MISS ALMA CARSON. *Secretary.*

Oregon.—Our past year's work in bird protection has shown that we need to continue our efforts in educational work, especially through the country districts. At the last session of the legislature a bill was introduced by some fruit-growers which practically annulled our Model Bird Law, in that it allowed farmers, gardeners and horticulturists to shoot any or all birds which they thought were doing damage to the crops. In spite of our efforts, the bill was passed, but a strong appeal was made to Governor Chamberlain from various parts of the state, and we succeeded in getting his veto, thus killing the bill.

In order to spread the knowledge as to the economic value of bird life, our president, Mr. Finley, is writing a series of Leaflets on Oregon birds, to be published by the University of Oregon under the direction of the State Biologist. The first of these was issued in June. It was general in character, entitled 'The Study of Birds and Their Economic Value.' The second, on some of the common fall and winter birds, is soon to be published.

In addition to this, during the past summer Mr. Finley has given illustrated lectures on the economic value of birds in eight different towns in various parts of the state. He visited Forest Grove, McMinnville, Monmouth, Salem, Eugene, Albany, Grants Pass and Medford.

The sea-bird colonies at Three Arch Rocks, off the Oregon coast, have been doing well during the past year under the protection of Warden Phelps. During the breeding season he succeeded in keeping persons from visiting the rocks, so that the birds were undisturbed while nesting.

We are making the best effort possible for us in the direction of educational work throughout the state. Our corresponding secretary has written personal letters to every county school superintendent in Oregon, asking for his coöperation and good will in the distribution of our educational literature to the teachers of their county; many have answered expressing their interest and willingness to help. We expect to hear from the greater number of them to the same effect; to them we have sent packages of Leaflets tied in bundles ready for distribution.

Through our friend, Mrs. Clara H. Waldo, lecturer of the Oregon State Grange, it has become possible for us to send our literature into every Grange in the state; we have furnished her with one hundred full sets of Leaflets, securely tied into sets, ready and easy for economic distribution. We intend to make especial effort in the Granges by way of lectures, lantern-slides, literature, or in whatever way our ingenuity and means will allow, for it is here, we think, to do our most needed work between now and the next legislative session. Mr.

Finley's most excellent Leaflet is included among those of the National Audubon Leaflets that we sent out; also into each package sent to county school superintendents, and others, when it is thought advisable, we put two or more 'warning-notices,' with the request that they be properly placed. Every lady in Portland's 'Blue Book' has been favored with a set of the Ostrich and Aigrette Leaflets.

Our corresponding secretary has written, during the year, two hundred and ninety letters on Audubon matters. We have sent out the greater part of the full compliment of Leaflets furnished us by the National Society, and are waiting for more of the subjects suited for this country. The manual training classes of our city schools make bird-boxes as a part of their class work; next spring, at the proper season, we expect to make a half-holiday and go forth to place them for spring tenants.

I am sure the sentiment in favor of bird protection is growing in our state, but the state is very large and hard to cover, in consequence there is great ignorance as to the economic value of birds and their habits generally, also commercialism is the same here as in other states, but we are encouraged to believe that we are making progress and we intend to keep working.—DR. E. J. WELTY, *Corresponding Secretary*.

Pennsylvania.—The work of the Pennsylvania Audubon Society since its last report has been principally that of re-organization. After the death of its late secretary, Mrs. Edward Robins, the directors decided to re-organize the Society on the basis of three classes of membership—namely, active members, who pay annual dues, vote at the annual election and have the other privileges usual to such membership; associate members, who pay no dues, have no privileges, and are principally school children; and life members, who on the payment of \$25 are exempt from further dues, and have all the privileges of active membership.

The directors then discovered that a previous Audubon Society had been founded in Pennsylvania and chartered in 1886, but had ceased to hold meetings, so a combined board of directors was formed from this original society and the later one, and the charter formally adopted, with such new by-laws as seemed necessary. The Society is now, therefore, in a regular and permanent form, with a charter and an active and interested membership prepared to follow up the good beginning.

In May the reorganized Society was given a most interesting account of the work accomplished by the National Society, by Mr. Dutcher, as a result of which talk a number of names were added to the list of active members.

The business of reorganizing the Society on this permanent basis represented most of the 'new work' done this spring, but the old activities were still kept up. Twelve circulating libraries were kept moving in the state, and a number of school children and children in societies, such as 'Bands of Mercy,' etc.,

have signed the Audubon Pledge and received certificates of associate membership.

The increase of the public sentiment for bird protection has been quite marked during the past year in this state, largely due to the good work done by the State Zoölogist, and the Audubon literature distribution in schools. Indeed, it is to the intelligent work of the public school teachers who take up the subject that the Audubon Society owes some of its best results in the country districts.

The Society hopes to follow up its reorganization this winter with several public meetings, where illustrated talks will be given by those prominent in bird protection and ornithology (which seems still to be one of the most successful ways of reaching the general public), and by special work among the schools.

In closing this report of the Pennsylvania Society, a word must be added in recognition of the splendid work done by its late secretary, Mrs. Edward Robins. Always an enthusiastic lover of animals, Mrs. Robins combined a scientific knowledge of ornithology with her sympathy for the birds, which raised the Society's work above the mere sentiment of the moment to a permanent usefulness of both economic and humane value. The directors feel that the best tribute they can pay Mrs. Robins' memory is to continue on her own lines the work to which she was so devoted.—MISS E. W. FISHER, *Secretary*.

Rhode Island.—This Society has now been in existence for ten years. If the millinery question had been the only one to which our efforts had been directed during that time, we should certainly feel discouraged. The majority of Rhode Island women wear feathers, and even members of our Society are beginning to follow the prevailing fashion, taking refuge behind the assumption that all 'made-up-pieces' are composed of 'hen' feathers. Even if such plumage could be positively identified, it would still seem, for various reasons, to be ill-advised to wear it. A letter was sent by us in the spring to the Women's Clubs of the State Federation, asking them to sign resolutions binding them not to wear feathers, and although no official action was taken, yet many individual signatures were received. The interest of such women will be of great value to the cause, and we hope that the coming year will show the effects of their influence.

Our branch societies now number thirty, and our membership has increased from 1,100 to 1,646. Most of the new accessions, however, have been children, who pay small fees, and we have only one hundred and twenty-five sustaining members. The chief interest shown in bird-study has been in the rural districts. Many teachers there are giving attention to the subject, and we have constant requests for literature and charts. With the assistance of the National Association, and of our state officials, we have been able to place one hundred and fifty colored bird charts in the country schools. Leaflets to the number of 15,000 have been distributed, and twelve copies of BIRD-LORE have been sent regularly to branch societies. Five traveling libraries, which had seen much use,

were renovated, and two new ones added to the number, and all are continually moving from school to school.

At our annual meeting in March, Prof. Herbert E. Walter, of Brown University, delivered an interesting lecture upon the plumage of birds, illustrated by the epidiascope. By this instrument most vivid and beautiful effects are obtained.

We have recently joined the Rhode Island League for rural progress and the League of Improvement Societies, believing that these connections will increase our usefulness.

Few newspapers in the country have taken so much interest in the subject of bird protection as the 'Providence Journal'. During the past year it has published a series of bird articles which have been valuable to students, and very interesting to the general reader. Such a department has long been needed, and all Rhode Island bird-lovers feel under obligations to the 'Journal' for this educational work, as well as for frequent editorials upon all matters relating to the Audubon Societies.—MRS. HENRY TYLER GRANT, *Secretary*.

South Carolina.—A short statement of the work of the South Carolina Audubon Society will be of some interest at this time. To begin with, the laws of this state on bird, game and fish protection have heretofore been drawn without system or regard to uniformity. Most of the laws that are now on the books cover specific counties as regards the birds, and the northern and western part of the state has no law protecting fish. I see no hope of straightening the matter except by having new uniform laws passed at the next session of the legislature.

The Society has had a man in the field as often as there was money in the treasury to pay his expenses while soliciting memberships, but he has not met with the success that we had hoped for, and the condition of the treasury at this time does not warrant further expenditure. The president has advanced a considerable sum of money which the Society has been unable so far to return, but we hope that when the shooting season commences the licenses from non-resident hunters will enable us to prosecute the work with some system and energy.

We have been unable, so far, to get out any printed matter of our own, but have distributed pamphlets contributed by the National Association and the Department of Agriculture.

The newspapers of the state have given us material aid by notices of the Society, and by publishing any articles sent in by us. Clippings covering this matter have been sent from time to time to Mr. Pearson, secretary of the National Association. Our secretary seems to be doing all that is possible under the circumstances, and has visited the different sections of the state at different times, and has secured a few memberships at all points. By direction he made cases against two parties for killing Great Blue Herons. In one case we secured a

conviction, and the other case comes up for trial, the party having demanded a jury; we feel reasonably sure of a conviction in this case. It has been extremely hard to get any information about violation of fish laws, except in a general way. The laws have been violated, but we have been unable to get any specific information.

We find that by an omission in passing an amendment to the game laws Doves are not protected at all, and may be shot at any time. We are glad to state, however, that we have heard of no instance in which these birds were shot during the nesting season, and hunters have started killing them only recently. We have arranged for the appointment of all lighthouse keepers as game wardens; quite a number of game wardens have been appointed, and badges distributed. We are going a little slow in the appointment of wardens, as we wish to secure reliable parties. The work of game wardens up to the incorporation of this Society has been practically nothing. We have secured such reports as we could get from the old wardens, so as to make some comparison with the work of this Society by the end of the year, and we feel sure that the results will show a very material progress in game, bird and fish protection.—B. F. TAYLOR, *President*.

South Dakota.—The South Dakota Audubon Society is as yet only a few months old, but to date we have organized a very satisfactory Society with a large membership, and we expect to number several hundred by January first. We have placed the A. O. U. Model Law upon our statute books, and it has received very favorable comment from nearly all periodicals of the state. We have published a series of articles about individual birds in the leading state 'daily,' and these articles have, in some cases, been entirely reproduced by the state press. A series of public addresses has been given at various points in the state, at which the attendance has been large and enthusiastic.

About 100,000 circulars on bird-life have been distributed through the state, and school Audubon Societies have been formed in nearly every county. We have a very large and beautiful room in the new Masonic Temple at Sioux Falls, which is ours exclusively, and beautiful cases are being made for our collection of mounted birds, nests and eggs. These are all specimens which have been gathered in the past, as we do not sanction even the taking of an egg to increase our collection. A feature of this collection is a large number of mounted birds, not one of which was killed for mounting, but they are birds picked up after severe storms, or birds that have lost their lives by flying against wires or from other causes.

We shall have in this room a reading-room, well supplied with books and pamphlets on the subject of birds, and the room will always be open to the public.

The following is a page from a forthcoming book by President Holmes that is to go into every school in South Dakota.

ROLL OF HONOR

THE BIRDS.—For service in the cause of humanity; for making the fields to flash with color, the lakes to laugh with music, and for making the trees the very 'peaks of song'; for teaching the courage, for pioneering, the joy of honest toil, the virtue of happy mating, the spirit of devoted parentage and the satisfaction in an 'ever so humble' home; for the singing with their work and revealing to us the life in nature that 'lifts us to the skies.'

THE ROBINS.—For labor upon our lawns; for stirring childhood's fancies, and awakening in old hearts the illusions of their childhood.

THE LARKS.—For tireless hours of toil upon our farms, clearing them of insects and the seeds of noxious weeds; for singing in every field and from every fence-post; for making morning the beginning of a day and evening the promise of another.

THE BLUEBIRDS.—For picking up the berries of the ivy and the brier; for clearing our gardens of grubs, our waysides of pests upon the wing and for giving a song to the early winds to tell us that we may rejoice at the bursting of the buds.

THE CUCKOOS.—For stripping our trees of caterpillars, our gardens of spiders, our fields of beetles and for minding their own business.

THE HAWKS.—For their restless hunting of rodents and reptiles and for having eyes that see in a half-blind world.

THE KILLDEERS.—For their fight against the boll-weevil and the Rocky Mountain locust and for the love of their little fuzzy babies.

THE WOODPECKERS.—For destroying ants, moths, beetles and weed-seeds; for their tremulous tattoos and awakening calls of springtime.

THE KINGFISHERS.—For lessening the swarms of beetles, crickets and grasshoppers and reminding us that ours are 'halcyon' days, if we but make them so.

THE GROSBEAKS.—For destroying potato-bugs and caterpillars; for one of the sweetest sounds in nature that makes us glad to stop in our hurry that we may look and listen.

THE SWALLOWS.—For killing the germ-bearing mosquitoes; for suffering saved to the beasts of the field and for their cheerful 'twittering from the straw-built shed.'

THE NATIVE SPARROWS.—For using thousands of tons of weed-seed that will never choke the grain or the flowers; for their infinite presence and their unnumbered songs.

THE UNKNOWN LIVING.—For working without reward and singing without applause.

THE UNKNOWN DEAD.—That have fallen on broken wing during the wild nights; that by unhappy flight have been the prey of natural enemies and men.

Our certificates of membership have just arrived, and we shall soon have the honor of forwarding to you Certificate No. 2. with the best wishes of our young Society.

In order to help do our share toward maintaining the mother institution, we shall send you before long a large number of subscriptions to BIRD-LORE.

We have, in a direct way, checked the slaughter of Doves and of Robins, and we believe that the organization of our Society has caused a better enforcement of our game laws.—GEORGE A. PETTIGREW, *Secretary*.

Texas.—The energy of the Texas Audubon Society during the current year, has been devoted mostly to the procuring of desirable legislation, and in the latter months to assisting in the enforcement of the statutes enacted for the preservation of wild birds and animals, coöperating with the state warden and his deputies to that end. The bill creating the warden system was made dependent upon an annual license fee of \$15, levied on non-resident gunners, the resident gunners being permitted to shoot without license. From the license on the non-resident gunners it is probable that a sufficient sum will accrue to support a fairly efficient warden system, after the legal commencement of the gunning season.

In the meantime, in order to protect the birds and game from lawless gunners, who commenced slaughtering Doves, Quail, Prairie Chickens, water-fowl, deer, Wild Turkeys and everything else two months before the open season, devoted friends of the cause notably, in the Houston district, raised funds and paid salaries of deputies from their private purses.

The growth of public sentiment in favor of preservation of birds has been marked during the past four years, and particularly marked during the present year. In the population of Texas of 3,800,000, it is probable that 50 per cent have had the arguments of the Audubon Society presented to them, in some form. The press has been very generous in giving space to our literature, publishing our articles in prominent and desirable position, under handsomely displayed headlines, and often reënforcing our pleadings with able editorials. We feel also greatly indebted to the Texas educators for the strong encouragement they have given to Audubon Societies in the schools, academies, colleges and universities.

The secretary, assisted by half a dozen ladies, and about an equal number of gentlemen, has succeeded in entertaining audiences over a large area of the state with lantern lectures. In one sparsely settled county, particularly in the interest of the antelope, the peccary and the armadillo, the secretary had in his audience about everybody within a radius of twenty-five miles. The chief difficulty in lantern lecturing in Texas is transportation. Distances between points are lengthy and roads are not good. Interurban electric railways are in process of construction, and in the near future this difficulty will be in a large degree removed.

With a heart brimming full of hope, the work will be pushed forward, and the secretary trusts when winter comes, with its long nights, to be able to conduct a series of lantern lectures in the larger cities, such as Waco, Ft. Worth, Dallas, Houston, Galveston, Austin, San Antonio and other of the more prominent centers.—M. B. DAVIS, *Secretary*.

Vermont.—The membership of the Vermont State Audubon Society, and the work done by that body during the past year, shows no great increase over other years, owing largely to the fact that the Vermont Bird Club, an older society, is working along the same lines. The latter organization, started several years ago in connection with another scientific club, includes most of the bird-lovers in the state, has the same aims as the Audubon Society, and is very active in legislative matters. It has seemed wise, therefore, to make the work of our Society largely educational in its scope, and to bring into it as many junior members as possible. In this way, the two societies do not conflict, but both together make a strong influence for the saving of the birds, and the instruction of the general public as to their value.

Several junior Societies, numbering from one to four hundred children, have been started during the past year in various towns of the state. The description of the one located in St. Johnsbury may perhaps answer for all. Meetings are held by this Society, which for convenience is divided into two sections, once a month from January to June. The children choose officers from among their own number, and conduct their meetings with much ceremony. In June a contest is held for determining those who are the best acquainted with the birds. The contestants are arranged in three divisions, according to age, the prizes in each division being five-dollar gold pieces. These prizes are donated by the president of the senior Society, Mr. C. H. Horton, and the interest created by the contest is very great. As preparation for this, bird walks are taken very frequently during the spring, these walks being lead by the secretary, or some other member of the state Society.

Several senior Societies have arranged for lectures by various ornithologists, admission to these lectures being either free or a nominal price, so that they could be largely attended by the people of the vicinity. Among other speakers has been Mr. Henry Oldys, of the Biological Survey, Washington, who has lectured in Burlington, St. Johnsbury, Johnson and other places in the state.

Some Societies have placed bird books and copies of 'BIRD-LORE' on the tables of the town libraries, and three traveling libraries, composed entirely of bird books, have been circulated in the state.—MISS DELIA I. GRIFFIN, *Secretary*.

Washington.—Modesty is becoming in a debutante, and indeed we have scarcely had time to take our bearings and get used to the lights since Missionary Finley brought us out in April. At a meeting held in the Central High School of Seattle, and presided over by Superintendent Cooper, we organized the Wash-

ington State Audubon Society with a membership of forty, since increased to over two hundred.

We believe that we have a most promising field for the cultivation of bird-lovers, and we find that protective sentiment has been already developed, and fostered to a gratifying degree by the efforts of the Washington State Game and Fish Protective Association, of which our efficient secretary, Mr. H. Rief, is the animating spirit. Our work has an assured welcome in public school circles, and we await only the advent of the man with time enough to address himself to the important task of guiding and informing an awakening interest.

There are in the interior of Washington a few Grebe colonies, which formerly suffered at the hands of skin hunters, but we do not know of recent depredations. Hawks and Owls suffer severely at the hands of unthinking farmers in eastern Washington, and we are reaping the expected harvest of 'sage rats' in consequence. Certain species of Grouse, notably the Columbian Sharp-tailed and the Sage Grouse, are possibly doomed to extinction; but, on the other hand, the spread of introduced species, notably the Mongolian Pheasant, and the Bob-white, is quite reassuring. Although the English Sparrow has been long with us, it is only recently that we have begun to notice the blighting influence of his mob tactics in our larger cities.

In the summer of 1906, and again in 1907, the president of the Society reconnoitered the islands lying off the west coast of Washington and located some thirty rookeries of sea-birds. This region is little frequented by white men, but the birds have suffered in a diminishing ratio from the depredations of Indians. An effort has been made to put a stop to this practice, ancient as it is, and the agent in charge of the Makah Reservation, Dr. C. S. Woods, has promised his hearty coöperation to this end.

Some idea of the extent of these island colonies may be obtained when I mention that probably 10,000 Rhinoceros Auklets nest on Destruction Island, and 40,000 Kaeding Petrels on Dhuoyuatzachtahl, one of the Quillayute Needles group; while upon Carroll Islet eleven of the twelve species known to the entire coast were found in June, 1907. Doubtless the time will come when it will be desirable to make of the last named a government reservation.—W. LEON DAWSON, *President*.

Wisconsin.—Our Society has done little during the past year outside of educational work, which has consisted mainly in the distribution of ten or twelve thousand Leaflets amongst the schools and libraries of the state, and in the circulation of our slides and lectures.

Our membership in the school branches continues to increase as the interest amongst the school children is fostered by our little magazine 'By the Wayside,' which is still published in connection with the Illinois Society. Our classes for bird study conducted, in Madison during the spring months, were, as usual, well attended.—MRS. R. G. THWAITES, *Secretary*.

In regard to the work of our children's Audubon Societies, the teachers say they are doing good work. Many of the branches are in rural districts, miles from even a railroad, so I am not in close communication with them, but, going through some letters, I find that during the snow-storms last April and May, during the migration season, the children fed the birds at Meceadah, Rhineland, Merrill, Montello, Mauston, Antigo, Yellow Lake, Elkhart Lake, Ingram and Elk Mound. In Appleton the birds were fed and boxes put out. There are also two drinking-places in private yards. We have never had to resort to the law here, but there is a marked improvement in bird conditions.

Four years ago it was quite impossible to save a nest, but this year a brood of Catbirds were raised in a bush at the end of our bridge, so near to the sidewalk that we could look down into the nest, and any child could have taken them out. The grass all about was worn down where every man, woman and child in the neighborhood stopped to look.

The spiders have been very bad about our houses, so six families put up Wren boxes, as many as there were places, and this year we thought there were less spiders.—MISS EDNA S. EDWARDS, *Secretary, School Department, Wisconsin Audubon Society.*

MEMBERSHIP IN THE NATIONAL ASSOCIATION

- \$5.00 paid annually constitutes a person a Sustaining Member.
- \$100.00 paid at one time constitutes a Life Membership.
- \$1,000.00 paid constitutes a person a Patron.
- \$5,000.00 paid constitutes a person a Founder.
- \$25,000.00 paid constitutes a person a Benefactor.

FORM OF BEQUEST

I do hereby give and bequeath to THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR THE PROTECTION OF WILD BIRDS AND ANIMALS, Incorporated, *of the city of New York,*

LIST OF MEMBERS OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

BENEFACTOR

*Albert Willcox 1906

LIFE MEMBERS

Bancroft, William P..... 1906	Huntington, Archer M..... 1905
Beebe, Mrs. J. Arthur..... 1907	Kidder, Nathaniel T..... 1905
Bingham, Miss Harriet..... 1907	Kilmer, Willis Sharpe..... 1907
Bowman, Miss Sarah R..... 1905	Lawrence, Samuel C..... 1905
Brewster, William..... 1905	Marshall, Louis..... 1906
Bridge, Mrs. Lidian E..... 1907	Morton, Miss Mary..... 1906
Brooks, A. L..... 1906	North Carolina Audubon Society... 1905
Brooks, Mrs. Everett W..... 1907	Osborne, Mrs. Eliza W..... 1906
Brooks, S..... 1907	Palmer, Gen. William J..... 1906
Brooks, Mrs. Shepherd..... 1906	Pearson, Prof. T. Gilbert..... 1905
Browning, J. Hull..... 1905	Phillips, Mrs. John C..... 1905
Carr, Gen. Julian S..... 1907	Phillips, John C..... 1905
Childs, John Lewis..... 1905	Pickman, Mrs. Dudley L..... 1907
Clyde, William P..... 1905	Pierrepont, Miss Anna J..... 1905
Coolidge, T. Jefferson, 3rd..... 1907	Pierrepont, John J..... 1905
Crosby, Maunsell S..... 1905	Pinchot, Mrs. James W..... 1906
Earle, Carlos Y. Poitevant..... 1905	Potts, Thomas..... 1905
Earle, Miss Eleanor Poitevant..... 1905	Reed, Mrs. Wm. Howell..... 1905
Eastman, George..... 1906	Sage, Mrs. Russell..... 1905
Fay, Mrs. Flora Ward..... 1905	Satterlee, Mrs. Herbert L..... 1906
Foot, James D..... 1907	Shattuck, Mrs. F. C..... 1906
*Frothingham, Howard P..... 1905	Tufts, Leonard..... 1907
Havemeyer, Mrs. H. O., Jr..... 1907	Van Name, Willard G..... 1906
Hemenway, Mrs. Augustus..... 1905	Vaux, George, Jr..... 1905
Hoffman, Samuel V..... 1907	Webster, F. G..... 1905
Hostetter, D. Herbert..... 1907	Wharton, William P..... 1907
Hunnewell, H. S..... 1905	

*Deceased

ANNUAL MEMBERS AND CONTRIBUTORS FOR 1907

Abbott, Clinton G.. \$5 00	Brought forw'd .. \$130 00	Brought forw'd .. \$260 00
Achelis, Fritz..... 5 00	Anderson, Mrs. J. C. 5 00	Baker, Mrs. W. E... 5 00
Acklen, Col. J. H... 5 00	Andrews, Mrs. H. E. 5 00	Ball, Miss H. A.... 5 00
Agar, Mrs. John G.. 5 00	Andrews, Mrs. W. L. 5 00	Balcom, H. Tracy.. 5 00
Agassiz, Max..... 5 00	Anthony, Mrs. S.R. 10 00	Balph, Mrs. J. M... 5 00
Agassiz, R. L..... 5 00	Appleton, J. W.... 5 00	Bancroft, Mrs.W.P. 5 00
Aiken, John A..... 5 00	Archbold, John D.. 5 00	Bangs, Dr. L. B.... 5 00
Aldrich, Spencer... 5 00	Atkins, Mrs. E. F... 5 00	Banks, Miss M. B.. 5 00
Alexander, H. B... 5 00	Atkinson, Mrs. E... 5 00	Barnes, Miss H. S.. 5 00
Allen, Calvin H.... 5 00	Atwater, C. B..... 5 00	Barnes, H. S..... 5 00
Allen, Chas. A..... 5 00	Auchincloss, J. W... 5 00	Barnes, Miss M.... 5 00
Allen, C. L..... 5 00	Audubon Society of Connecticut..... 20 00	Barnum, W. M..... 5 00
Allen County Audubon Society..... 5 00	Austin, F. B..... 5 00	Barnum, Mrs. W.M. 5 00
Allen, James L.... 5 00	Avery, Samuel P... 5 00	Barrows, Mrs. M... 5 00
Allen, Miss M. C... 5 00	Bacon, Mrs. F. E... 10 00	Bass, J. E..... 50
Almon, Mrs..... 10 00	Bacon, Miss M. P... 5 00	Bartlett, Mrs. C. T. 5 00
Almon, Miss M. E.. 10 00	Bahr, Dr. P. H..... 5 00	Batten, George.... 5 00
Amend, B. G..... 25 00	Baird, Miss L. H... 15 00	Baxter, John L.... 5 00
Ames, Miss M. S... 5 00	Baker, George L.... 5 00	Beach, Mrs. H. H. A. 5 00
Ames, Mrs. W. H... 5 00	Baker, L. D., Jr.... 5 00	Beckwith, Mrs. D.. 5 00
		Beech, Mrs. H..... 5 00

Carried forw'd .. \$130 00

Carried forw'd .. \$260 00

Carried forw'd .. \$355 50

ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd .. \$355	50	Brought forw'd .. \$676	00	Brought forw'd .. \$986	00
Beemer, J. G. Jr...	5	Brown, Harry W...	5	Church, F. C., Jr...	5
Behr, Edward A...	5	Brown, Dr. L.....	5	Churchill, Miss A.P.	5
Belais, David.....	5	Brown, Ronald K...	5	Churchill, W. W....	5
Belais, Mrs. David.	5	Brown, Samuel N...	5	Clapp, Miss Helen...	5
Bell, Mrs. Gordon...	5	Brownell, C. R....	5	Clark, Miss A. B....	5
Bemis, Mrs. F.....	5	Browning, W. H....	5	Clark, C. H.....	5
Benedict, Theo. H..	5	Bulkley, Mrs. E. M.	5	Clark, Miss E. L....	5
Benn, Miss A. E....	5	Bullard, Mrs. E. P.	5	Clark, I. H.....	5
Benn, George W...	5	Burgess, John K...	5	Clark, Mrs. J. T....	5
Bent, Arthur C....	5	Burke, Jos. F.....	5	Clark, Miss S. E....	5
Bertschmann, J....	5	Burnett, John T...	5	Clarke, Miss H. E...	5
Bevin, L. A.....	5	Burnett, Mrs. J....	5	Clarkson, Mrs. T. S.	5
Bigelow, Mrs. P....	5	Burnham, Mrs.		Clemens, Miss J. L.	10
Bigelow, Dr. W. S..	10	George, Jr.....	5	Clemens, S. L.....	10
Bill, Nathan D....	5	Burnham, Mrs. J. A.	5	Clemson, G. N....	5
Billings, Miss E...	5	Burnham, William.	5	Clinch, Edward S...	5
Binney, Edwin....	5	Burr, Mrs. I. T....	5	Clinch, Howard T..	10
Bird, Miss Anna C..	20	Bush, Mrs. E. F...	5	Coates, Miss S. H...	5
Bird, Charles S....	5	Butler, Mrs. Paul.	10	Codman, Alfred...	5
Black, R. C., Jr...	5	Butler, Miss V....	5	Codman, Miss C. A.	5
Blair, C. Ledyard.	5	Bye, Mrs. C. F....	5	Codman, J. S.....	10
Blakely, Walter J..	5	Cabanis, Winship..	5	Coffin, George S...	5
Bliss, Mrs. Walter P.	5	Cabot, George E...	5	Coker, David R....	5
Bliss, Mrs. W. H...	5	Cabot, Mrs. H. B...	5	Colburn, N. A....	5
Blum, M.....	2	Cabot, Louis.....	5	Colcord, Albert P...	5
Blunt, Miss E. S...	5	Cabot, Mrs. W. C...	5	Colgate, R. R.....	10
Bogert, W. S.....	5	Cameron, E. S....	5	Collamore, Miss H.	5
Bolles, Miss D. F..	5	Cammann, Miss		Collier, P. F.....	5
Bolling, Stanhope...	5	Kate L.....	10	Collins, Miss Ellen.	11
Bond-Foote, Miss		Carleton, Cyrus...	5	Collins, Miss G....	5
Mary E.....	5	Carnegie, Frank M.	5	Collins, Miss M....	5
Bonner, Mrs. P. R..	5	Carnegie, M. T....	5	Comfort, Miss A...	5
Borden, Miss E. L..	5	Carpenter, C. L....	5	Comfort, Miss A. E.	5
Borg, Mrs. S. C....	5	Carr, Miss Eva A...	10	Converse, Mrs. C. C.	5
Borland, W. G.....	5	Carter, John E....	5	Coolidge, J. R....	5
Botham, Miss E. S.	5	Carter, S. T., Jr...	5	Coolidge, J. T....	5
Bowditch, James H.	5	Cary William A...	5	Coolidge, T. J., Jr.	5
Bowlker, T. J.....	5	Case, Miss L. W...	5	Cooper, H. M.....	5
Boyle, Edward J...	5	Cash.....	5	Cope, Alban.....	5
Bradford, Mrs. G. G.	5	Chafee, Mrs. Z....	5	Cope, F. R., Jr....	5
Bradlee, Thomas S.	5	Chamberlain, Rev. L.	5	Corlies, Miss M. L.	5
Bradley, Miss A. A.	5	Chamberlain, Mrs.		Corning, Miss M. I.	5
Bradley, Miss L....	5	F. P.....	5	Costello, W. J....	2
Bradley, Mrs. R....	5	Chamberlin, G. N..	5	Cox, Mrs. James S..	10
Brandreth, Courtney	5	Chapman, C. E....	5	Cox, John L.....	5
Brazier, Mrs. J. H..	5	Chapman, Mrs. J. J.	5	Cramer, Mrs. A....	5
Breed, Stephen A...	5	Chase, Mrs. A. B...	5	Crane, Miss C. L...	20
Breese, Miss E. L...	5	Chase, Sidney.....	5	Crehore, F. M....	5
Brennecke, George.	6	Chase, Mrs. T....	10	Crocker, W.....	5
"Bridgewater".....	3	Chatfield, H. S....	5	Cromwell, James W.	5
Bristol, John I. D...	5	Cheever, J. D....	5	Crosby, Mrs. E. H..	5
Brooks, Allan.....	10	Cheney, Mrs. A....	5	Crosby, Stephen M.	5
Brooks, F. M.....	5	Cheney, Louis R...	5	Crossman, G. W....	5
Brooks, Mrs. P. C..	5	Childs, Mrs. C. H..	5	Cudworth, F.....	10
Brown, Charles E...	5	Chisolm, A. R....	5	Cummins, Miss E. I.	5
Brown, David S...	5	Christian, Miss E...	5	Cunningham, G. H.	5
Brown, Edwin H...	5	Christian, Miss S...	5	Curtis, Mrs. C. B...	5
Brown, Elisha R....	5	Christy, Bayard H..	10	Curtis, Mrs. Louis..	5
Brown, Hon. E. R...	5	Chubb, S. H.....	5	Curtiss, Misses....	10
Brown, Frank A....	9	Chubbuck, Isaac V.	5	Curtiss, Miss S....	5
Carried forw'd .. \$676	00	Carried forw'd .. \$986	00	Carried forw'd, \$1,389	00

ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd, \$1,389	00	Brought forw'd, \$1,782	00	Brought forw'd, \$2,287	00
Cutting, Robert F.	5	Ely, Smith.	5	Goddard, G. A.	5
Dana, Miss Ada.	5	Emerson, Miss J. T.	3	Godeffroy, Mrs. E. H.	5
Dana, Miss E. A.	2	Emery, Miss G.	25	Goin, James D.	5
Dane, Miss A. L.	5	Emery, Miss G. H.	10	Goodrich, Miss J. T.	5
Daveis, Edward H.	5	Emery, Mrs. L. J.	20	Goodwin, Mrs. H. M.	5
Davenport, Mrs. E. B.	5	Emmons, Mrs. R. W., 2d.	5	Graham, C. E.	5
Davis, Mrs. W. R.	5	Enders, John O.	5	Graham, Miss M. D.	5
Davis, Walter R.	5	Eno, Dr. H. C.	25	Graves, Mrs. C. B.	5
Day, Mrs. A. M.	5	Estabrook, A. F.	5	Gray, Miss Emily.	5
Day, Mrs. Frank A.	5	Eustis, F. A.	5	Gray, Miss Isa E.	5
Day, Frank Miles.	5	Eustis, Misses.	5	Gray, Mrs. Morris.	5
Day, Miss K. S.	5	Evans, Mrs. R. D.	10	Gray, Roland.	5
Dean, Charles A.	5	Fackler, David P.	5	Greene, G. S., Jr.	5
Deats, Mrs. E. S.	5	Fairbanks, Mrs. Emma C.	2	Greene, Miss M.	5
De Coppet, E. J.	10	Fairchild, S. W.	5	Greene, Miss M. A.	5
De Coppet, T.	5	Farnum, Henry W.	5	Greenfield Audubon Club.	5
De Forest, H. W.	5	Farwell, Mrs. John V., Jr.	5	Grew, Mrs. E. W.	10
Degener, I. F.	10	Faulkner, Miss F. M.	5	Grew, Mrs. H. S.	5
Detroit Bird Protecting Club.	5	Fay, D. B.	10	Griffin, Mrs. S. B.	5
Dewey, Dr. C. A.	10	Fay, Mrs. H. H.	5	Guillaudeau, Emil.	5
Dexter, George.	5	Fenno, L. C.	5	Hadden, Dr. A.	5
Dick, Mrs. M. M.	5	Fessenden, F. G.	5	Hadley, Mrs. A. P.	5
Dickerman, W. B.	25	Field, E. B.	5	Hagar, Eugene P.	5
Dietz, Mrs. C. N.	5	Finley, William L.	5	Hanes, Miss J. R.	5
Dod, Miss H. M.	5	Fish, Mrs. C. P.	5	Hale, Rev. E. E.	5
Dodd, Henry W.	10	Fisher, Miss E. W.	5	Hall, Alfred B.	5
Dodge, Mrs. C. C.	5	Fiske, Mrs. M. M.	5	Hamill, Miss E. C.	5
Dodge, C. H.	50	Flavell, Mrs. L. C.	5	Hamilton, Miss Elizabeth S.	10
Dodge, Rev. S. D.	10	Flower, A. R.	5	Henbach, Mrs. G.	5
Dodge, Miss G. H.	5	Fogg, Miss G. M.	5	Hardie, W. T.	5
Dommerich, L. F.	5	Forbes, Alexander.	5	Harding, Dr. G. F.	5
Domick, Mrs. M. W.	5	Forbes, Mrs. W. H.	50	Hardy, Mrs. R.	5
Donaldson, John J.	5	Forbush, E. H.	5	Harper, Francis.	5
Dorrance, Miss A.	5	Foster, Macomb G.	5	Harral, Mrs. E. W.	5
Dorrance, B.	5	Fox, Henry.	5	Harriman, Miss M.	5
Draper, Eben S.	5	Freeman, Miss C. L.	5	Harris, Mrs. J. C.	5
Drew, Miss E. E.	1	Freeman, Miss H. E.	5	Harrison, Chas. G.	5
Drew, Henry J. W.	5	Freeman, Mrs. J. G.	5	Hartline, D. S.	5
Drude, Miss L. F.	5	Freer, Charles L.	100	Hartness, Mrs. J.	5
Drummond, Miss E.	10	French, Miss C. A.	5	Haskell, Miss H. P.	5
Drummond, Miss M.	5	French, Miss E. A.	10	Hatch, Edward, Jr.	5
Duane, James May.	5	Freudenstein, W. L.	5	Hatch, Lyle Payson.	5
Dubois, Dr. M. B.	5	Frissell, A. S.	5	Havemeyer, J. C.	5
Duncan, A. Butler.	5	Fulenwider, J. J. B.	5	Haynes, Henry W.	5
Dunham, A. L.	5	Fuller, Frank L.	5	Haynes, Miss L. de Forest.	5
Duryee, Miss A. B.	5	Garrett, Mrs. E. W.	5	Hayward, Mrs. Mary Smith	5
Duryee, G. V. W.	5	Garrett, Miss M. E.	5	Heaton, Mrs. R. C.	5
Dutcher, Mrs. W.	5	Gatter, Miss E. A.	10	Hecker, Frank J.	25
Dutcher, Miss Mary	5	Gavitt, William S.	5	Heinisch, R. E.	5
Dutcher, William.	5	Geer, Mrs. Walter.	10	Hendrickson, W. F.	5
Dwight, Dr. J., Jr.	5	Gelpecke, Miss A. C.	10	Henshaw, H. W.	5
Dyer, Edward T.	5	Gifford, Dr. H.	5	Herrick, Harold.	15
Eaton, E. Howard.	5	Gilbert, H. B.	5	Herrmann, Mrs. E.	5
Eaton, Miss M. L.	5	Gillett, Miss L. D.	5	Hesse, Victor L.	6
Eddy, Miss S. J.	5	Gillingham, Mrs. Tracie E.	5	Heyward, D. C.	5
Edgar, D.	10	Glessner, Mrs. J. J.	5		
Elliot, Mrs. J. W.	15				
Ells, George P.	5				
Carried forw'd, \$1,782	00	Carried forw'd, \$2,287	00	Carried forw'd, \$2,603	00

ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd, \$2,603	00	Brought forw'd, \$2,932	00	Brought forw'd, \$3,275	00
Hicks, Mrs. B. D....	5	Jenckes, John.....	5	Levy, Mrs. J.....	10
Hicks, John D.....	5	Jenks, Miss C. E....	5	Lichtenauer, Miss	
Higginson, Miss		Jenks, Mrs. W. H....	5	Alice C.....	5
Elizabeth B.....	5	Jennings, Dr. G. H..	5	Livingston, G.....	5
Higginson, Mrs.		Jesup, M. K.....	25	Lodge, H. E.....	5
H. L.....	5	Johnson, F. E.....	5	Loeb, Morris.....	5
Higginson, J. J.....	5	Johnson, Mrs. F. S..	5	Logue, Mrs. Ida L..	5
Higginson, T. W....	3	Johnson, Mrs. F. W.	5	Loines, Mrs. M. H..	5
Hill, William H....	5	Johnson, W. H....	5	Long, Harry V....	5
Hittinger, Jacob..	5	Johnston, R. W....	5	Longfellow, Miss	
Hoague, Theodore.	5	Jones, Boyd B.....	5	Alice M.....	5
Hodge, C. F.....	5	Jones, Charles H....	5	Lord, Miss Cowper.	5
Hodgman, Mrs.		Jones, Mrs. C. H....	5	Lord, Franklin B..	5
William L.....	5	Jones, Miss Esther.	5	Loring, The Misses.	30
Hoffman, C. A....	5	Jones, Frederick...	5	Loring, Mrs. W. C..	5
Hoge, Miss F.....	5	Jones, Dr. L. C.....	5	Low, Hon. Seth....	5
Holbrook, Mrs. E..	5	Jordan, Miss C. M..	5	Lowell, Miss C. R..	5
Holden, Mrs. E. R..	5	Joslyn, Mrs. G. A... 10		Lowell, James A... 5	
Holdren, M. E....	5	Kahn, Otto H.....	5	Lowell, Miss L....	5
Hollingsworth, Mrs.		Kempster, James... 5		Lowell, Sidney V... 2	
George.....	5	Kendall, Miss G....	5	Lowndes, James... 5	
Holmes, Charles E..	5	Kennedy, Mrs. J. S.	25	Lowry, Mrs. A. L... 5	
Holt, Mrs. Henry... 5		Kerr, Mrs. J. C..... 10		Loyd, Miss S. A. C.. 5	
Hopkins, Miss J... 5		Kerr, Miss Lois.... 5		Luce, Matthew.... 5	
Hoppin, Mrs. Sarah		Kimball, Miss H. F. 10		Lundy, Miss E. L... 5	
C. W.....	5	King, Miss E.....	5	Lydig, David.....	5
Hornblower, Henry.	5	King, Miss L. B.... 5		Lyle, John S.....	5
Hornbrooke, Mrs.		King, M. K.....	5	Lyman, Henry....	5
Frances B.....	5	King, William B.... 5		McCullough, Mrs.	
Horr, Chas. W....	5	Kite, Mrs. M.....	3	Mary.....	5
Hotchkiss, C. F....	5	Kittredge, S. D....	5	McEwen, D. C....	10
Houghton, C. S....	5	Knight, Mrs. A. S... 5		McGowan, Mrs. J. E. 5	
Houston, J. A....	5	Kopman, Henry H... 5		McHatton, Dr. H... 5	
Howe, Mrs. A....	5	Kuhn, Mrs. H..... 10		McKee, Mrs. W. L.. 5	
Howe, Miss Edith.. 5		Kunhardt, W. B.... 5		McKittrick, T. H. Jr. 5	
Howe, E. W.....	5	Kuser, Col. A. R.... 5		MacDougall, G. R.. 5	
Howe, Mrs. J. S.... 5		Kuser, Mrs. A. R.... 5		Mac Enroe, J. F.... 5	
Howells, Frank S.. 5		Kuser, John D....	5	Macy, V. Everit... 5	
Howland, Miss E... 15		Kyle, William S.... 5		Macy, Mrs. V. E.... 25	
Howland, Miss I... 20		LaFarge, Mrs. C. G. 5		Madden, Miss A. T. 5	
Hubbard, Miss A.		Lancashire, Mrs		Mager, F. Robert.. 5	
Weir.....	5	Sarah H.....	5	Maghee, John H.... 5	
Hubbard, Miss M. E. 5		Lang, Charles....	5	Maitland, A..... 5	
Hull, Mrs. A. G.... 5		Langeloth, Jacob... 5		Malcom, Mrs. A.... 5	
Humphreys, Mrs.		Langmann, Dr. G... 5		Manning, F. H....	10
Harold.....	5	Lagowitz, Miss H. L. 5		Markham, Miss	
Hunnewell, Walter. 25		Law, J. Douglas... 5		Frances G.....	5
Hunt, Dr. Emily G.. 6		Lawrence, John B.. 5		Markoe, Mrs. John. 20	
Hussey, William H.. 5		Lawrence, Mrs.		Marling, Alfred E... 5	
Huyler, W. C.....	5	R. M.....	5	Marrs, Mrs. K....	5
Hyde, Mrs. E. F.... 5		Lawrence, T.....	5	Marsh, Miss Ruth.. 5	
Ingalls, Chas. E... 5		Lee, Frederic S.... 5		Marshall, Charles C. 5	
Ingraham, E. D.... 5		Leigh, B. Watkins.. 5		Marshall, T. A.... 5	
Insee, Mrs. S..... 5		Leman, J. Howard. 5		Martin, Miss C. M.. 10	
Iselin, Mrs. C. O... 10		Lemmon, Miss Isa-		Martin, Mrs. E.... 10	
Iselin, Mrs. W. E... 5		bella McC.....	5	Martin, Mrs. J. W.. 5	
Issenbuth, E. C.... 5		Lemon, William H.. 5		Maryland Branch of	
Jackson, Mrs. M. C. 25		Lester, Mrs. J. W... 5		the National Au-	
Jamison, Chas. A... 5		Letchworth, Josiah. 5		dubon Society... 5	
Jaynes, C. P.....	5	Leverett, George V.. 5		Mason, Mrs. E. F... 5	
Carried forw'd, \$2,932	00	Carried forw'd, \$3,275	00	Carried forw'd, \$3,627	00

ANNUAL MEMBERS AND CONTRIBUTIONS. continued

Brought forw'd, \$3,627	00	Brought forw'd, \$4,237	00	Brought forw'd, \$4,636	50
Mason, Mrs. E. L.	5 00	Paine, Miss E. L.	5 00	Reinhold, Dr. A. J.	5 00
Mason, Miss F. P.	5 00	Paine, Mrs. R. T.,		Renwick, E. S.	5 00
Matheson, W. J.	5 00	2nd.....	5 00	Reynolds, D.	5 00
Mauran, Mrs. J. L.	8 00	Palmer, Miss C. H.	5 00	Rhoads, Miss B. M.	5 00
Mayo, Miss Amy L.	5 00	Palmer, Miss D.	5 00	Rhoads, Miss L. W.	5 00
Mead, F. S.	5 00	Palmer, Miss Elsie.	5 00	Rhoads, J. S.	5 00
Meisselbach, A. F.	5 00	Palmer, Miss L. S.	5 00	Rhoads, Miss S. W.	5 00
Mellick, Mrs. G. P.	5 00	Palmer, Miss M.	5 00	Richards, Miss A. A.	5 00
Mellor, George B.	5 00	Palmer, Dr. T. S.	5 00	Richardson, Dr.	
Meredith, Mrs.		Parker, Mrs. B. W.	5 00	Maurice H.	5 00
William T.	5 00	Parker, Edward L.	75 00	Richie, Miss Sarah.	5 00
Merrill, Miss F. E.	5 00	Parker, Thomas F.	10 00	Richmond, Walter.	5 00
Merriam, Mrs. D.	10 00	Parlin, A. N.	5 00	Ricketts, Miss J.	5 00
Merriam, The Misses	5 00	Patten, Mrs. W. S.	5 00	Rippet, E. L.	5 00
Metcalf, Manton B.	5 00	Patterson, W. F.	5 00	Rives, Dr. W. C.	5 00
Metcalf, Stephen O.	5 00	Peabody, G. A.	5 00	Robbins, R. C.	5 00
Meyer, Miss H.	5 00	Peabody, Mrs. O. W.	5 00	Robert, Samuel.	5 00
Meyer, Thos. C.	10 00	Peck, Mrs. E. P.	5 00	Roberts, Mrs. C.	5 00
Miles, Mrs. H. F.	5 00	Peel, W. L.	5 00	Roberts, Miss E. C.	5 00
Miles, Mrs. H. A.	5 00	Pell, William H.	5 00	Roberts, Miss F. A.	5 00
Miller, Mrs. E. S.	5 00	Penfield, Mrs. C. S.	1 00	Roberts, Thomas S.	5 00
Miller, Frank M.	5 00	Perkins, Miss E. G.	5 00	Robertson, Mrs. F. P.	10 00
Miller, Mrs. R. F.	5 00	Peters, Francis A.	5 00	Robertson, Miss J.	5 00
Miller, Roswell.	5 00	Pettigrew, G. A.	5 00	Robey, Andrew A.	5 00
Mills, Enos A.	5 00	Phillips, Mrs. Chas.		Robinson, Miss A. H.	5 00
Mitchell, Miss Mary	5 00	E. H.	5 00	Robinson, Mrs. G. H.	5 00
Mitchell, Mrs. M. B.	5 00	Phillips, Mrs. J. C.	10 00	Robotham, C.	5 00
Montgomery, Miss		Phillips, Hon. J. M.	5 00	Rodes, Joseph H.	5 00
Mary A.	4 00	Phipps, Henry.	5 00	Rodman, Alfred.	5 00
Moon, E. B.	5 00	Pickering, Mrs. H.	25 00	Rodman, Mrs. E.	5 00
Moore, Miss F. R.	5 00	Pierce, H. C.	5 00	Roth, J. E.	5 00
Morgan, Miss E. P.	25 00	Pierce, Miss K. C.	5 00	Ryerson, E.	5 00
Morris, Miss C. W.	5 00	Pillsbury, A. N., Jr.	10 00	Sage, John H.	5 00
Morris, Robert O.	5 00	Piper, Mrs. F. E.	1 00	Sage, Mrs. S. M.	5 00
Morrow, T. J.	5 00	Pitkin, F. E.	5 00	Saltonstall, John L.	10 00
Morse, Mrs. John		Planten, John R.	5 00	Sanborn, Mrs. F. A.	5 00
T., Jr.	5 00	Platt, Mrs. Charles.	5 00	Sankey, William E.	5 00
Moseley, F. S.	5 00	Pollock, George E.	5 00	Sargent, Mrs. F. W.	5 00
Motley, F. Preble.	5 00	Pond, C. H.	5 00	Saunders, W. E.	5 00
Mott, A. W.	5 00	Poor, James R.	5 00	Savings of Carola	
Mott, J. L., Jr.	5 00	Pope, Alexander.	5 00	and her Brothers.	50 00
Nash, Mrs. M. C. B.	5 00	Post, Abner.	5 00	Scattergood, T.	5 00
Newton, Dr. E. D.	5 00	Post, William S.	5 00	Schieffelin, Mrs. H.	
Nichols, J. W. T.	5 00	Potter, Miss C.	5 00	M.	5 00
Nicholson, Rebecca		Potts, Jesse Walker.	5 00	Schott, C. M., Jr.	5 00
and Sarah.	5 00	Potts, Miss S. B.	5 00	Schramm, Arnold.	5 00
Norcross, G. H.	5 00	Pratt, Augustus.	5 00	Schroeder, Arthur.	5 00
Norton, C. E.	5 00	Price, John S., Jr.	10 00	Schwab, Rev. L. H.	5 00
Noyes, Mrs. H. A.	5 00	Prohaska, J. F.	2 50	Scrymser, Mrs. J. A.	25 00
Oldberg, Mrs. O.	5 00	Pryer, Charles.	5 00	Seabrook, Mrs. H. H.	5 00
Opdycke, Mrs. E.	5 00	Putnam, F. W.	5 00	Seamans, C. W.	25 00
Opdycke, L. E.	5 00	Pyle, Howard.	5 00	Sears, F. B.	5 00
"Ormonde".	300 00	Rathborne, R. C.	5 00	Sears, Mrs. S. C.	5 00
Osborn, Mrs. W. C.	10 00	Read, Bartow.	5 00	Sears, William R.	5 00
Osborn, William R.	5 00	Read, Miss C. H.	5 00	Seaver, Benj. F.	5 00
Otis, Charles R.	5 00	Read, Curtis S.	5 00	Sedgwick, Mrs. E.	5 00
Outerbridge, A. J.	5 00	Read, Duncan H.	5 00	See, Alonzo B.	5 00
Owen, Mrs. M. L.	3 00	Read, W. A., Jr.	5 00	Seiss, Dr. R. W.	5 00
Paddock, Royce.	5 00	Read, Miss S. E.	15 00	Seligman, Isaac N.	5 00
Paine, Mrs. A. G.	5 00	Rees, Norman I.	5 00	Seligman, J.	5 00
Carried forw'd, \$4,237	00	Carried forw'd, \$4,636	50	Carried forw'd, \$5,016	50

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Brought forw'd, \$5,016	50	Brought forw'd, \$5,397	00	Brought forw'd, \$5,956	00
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Shannon, T., Jr. . .	1 00	Stone, Charles A. . . .	5 00	von Wagenen, Mrs.	
Sharpe, Miss E. D. .	55 00	Stone, Miss E. J. . . .	25 00	G. H.	5 00
Shattuck, G. C.	5 00	Stone, George.	5 00	Wadsworth, C. S. . .	30 00
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Shaw, Francis.	5 00	Storrow, Mrs. J. J. .	5 00	C. W. Wadsworth	15 00
Shaw, Mrs. G. H. . .	5 00	Stratton, C. E.	5 00	Wadsworth, Mrs.	
Shaw, Dr. J. C.	5 00	Strong, R. A.	5 00	W. Austin.	20 00
Shaw, Q. A., Jr. . . .	5 00	Strong, Selah B.	5 00	Waldo, C. S.	10 00
Shaw, Mrs. R. G. . . .	30 00	Sturgis, John H. . . .	5 00	Wales, E. H.	15 00
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Shepard, C. Sidney .	5 00	Swan, Mrs. R. T. . . .	5 00	Wallace, Mrs. A. H. .	5 00
Sherman, J. P. R. . .	5 00	Swasey, E. R.	5 00	Walters, Frank. . . .	5 00
Shiras, George, 3rd. .	5 00	Swenholt, Jonas. . . .	5 00	Ward, Marcus L. . . .	5 00
Shortall, Mrs. J. L. .	5 00	Taber, Sydney R. . . .	5 00	Warner, Mrs. G. M. .	5 00
Simmons, B. F.	5 00	Taber, Mrs. S. R. . . .	2 00	Warner, Dr. H. S. . .	5 00
Sitgreaves, Miss M. J.	15 00	Taft, Cyrus A.	5 00	Warren, B. W.	5 00
Skeel, Mrs. R., Jr. . .	10 00	Talcott, James. . . .	5 00	Warren, Mrs. E. W. .	5 00
Skidmore, S. T.	5 00	Tarbell, Miss K. L. . .	5 00	Warren, Mrs. C. . . .	25 00
Slocum, William H. .	5 00	Taylor, Alex. R.	5 00	Warren, Samuel D. . .	25 00
Smith, Miss A. W. . .	5 00	Taylor, B. F.	5 00	Watson, J. H.	5 00
Smith, Mrs. A. J. . . .	5 00	Tenney, Mrs. E. P. . .	5 00	Webster, E. S.	5 00
Smith, Byron L.	5 00	Thayer, Mrs. E. R. . .	35 00	Webster, L. F.	5 00
Smith, Rev. C. B. . . .	5 00	Thayer, Ezra R. . . .	25 00	Weeks, A. G.	5 00
Smith, Miss C. L. . .	5 00	Thayer, Mrs. G.		Weeks, W. B. P. . . .	5 00
Smith, Miss E. C. . .	5 00	A., Jr.	5 00	Wehrhane, C.	5 00
Smith, Mrs. G. W. . .	5 00	Thayer, John E. . . .	200 00	Weld, Rev. G. F. . . .	5 00
Smith, Mrs. J. N. . . .	5 00	Thayer, Mrs. J. E. . .	5 00	Weld, Gen. S. M. . . .	5 00
Smith, Miss L. I. . . .	5 00	Thayer, J. E., Jr. . . .	5 00	West, Charles C. . . .	5 00
Smith, Robert.	5 00	Thayer, Mrs. N. . . .	5 00	Weston, Miss H. . . .	5 00
Smith, Mrs. R. D. . . .	5 00	Thebaud, Paul G. . . .	5 00	Wetmore, Mrs. C. W. .	5 00
Smith, Prof. Roy L. . .	5 00	Thomas, Mrs. L. . . .	5 00	Wetmore, E.	5 00
Smith, T. H.	5 00	Thomas, Mrs. T. . . .	5 00	Wharton, Mrs. E. R. .	5 00
Smith, Mrs. W. M. . .	5 00	Thompson, Geo. . . .	5 00	Wheeler, J. D.	5 00
Smith, Walter M. . . .	5 00	Thorndike, Albert. . .	5 00	Wheeler, S. H.	5 00
Smith, Wilbur F. . . .	5 00	Thorne, Samuel. . . .	10 00	Wheelwright, Mrs.	
Smyth, Ellison A. . .	5 00	Thornton, L. M. . . .	2 00	E.	5 00
Snyder, Watson. . . .	5 00	Tingley, S. H.	5 00	Wheelwright, Miss	
Soren, George W. . . .	5 00	Tinkman, Julian R. . .	15 00	M. C.	5 00
Spafford, F. A.	5 00	Titus, E., Jr.	5 00	Whipple, Mrs. H. B. .	5 00
Speer, Mrs. R. E. . . .	5 00	Todd, James.	5 00	White, Mrs. C. T. . . .	5 00
Spencer, C. E.	5 00	Torrey, Miss J. M. . .	5 00	White, Miss H. H. . .	5 00
Speyer, Mrs. J.	6 00	Trainer, C. W.	5 00	White, Dr. J. C.	5 00
Spooner, Miss M. T. .	5 00	Trinc, Ralph W. . . .	5 00	Whiting, Miss G. . . .	5 00
Spofford, Paul N. . .	5 00	Tudor, F.	5 00	Whiting, Mrs. S. B. .	10 00
Sprague, F. P.	5 00	Turle, Mrs. W.	5 00	Whitney, Miss Anne .	5 00
Sprague, Mrs. L. . . .	5 00	Turner, Mrs. W. J. . .	5 00	Whitney, Milton B. .	5 00
Spray, S. J.	5 00	Tuttle, Dr. A. H. . . .	5 00	Whiton, S. G.	5 00
Squires, H. L.	2 50	Tweedy, Edgar. . . .	5 00	Widmann, Otto. . . .	5 00
Steinmetz, F. J. . . .	5 00	Twombly, J. F.	5 00	Williams, Blair S. . .	5 00
Sterling, E. C.	5 00	Tyson, Mrs. G.	5 00	Williams, Mrs. I. T. .	5 00
Stetson, F. L.	6 00	Unity Audubon So-		Williams, Miss M. E. .	5 00
Stevenson, Miss A. B.	5 00	ciety.	5 00	Willis, Mrs. A.	5 00
Stevenson, Miss F. G.	5 00	Van Huyck, J. M. . . .	5 00	Wills, Charles T. . . .	5 00
Stewart, P. B.	5 00	Van Orden, Miss		Wilson, Miss A. E. . .	5 00
Stewart, Mrs. P. B. .	5 00	Mary L.	5 00	Wilson, C. W.	5 00
Stillman, Miss B. W.	3 00	van Wickle, Miss		Wing, Asa S.	5 00
Stillman, William		Marjorie P.	5 00	Winsor, Mrs. A.	6 00
O., Dr.	2 00	van Arnim, Miss A. . .	5 00	Winsor, Miss M. P. .	5 00
Carried forw'd, \$5,397	00	Carried forw'd, \$5,956	00	Carried forw'd, \$6,337	00

ANNUAL MEMBERS AND CONTRIBUTIONS, continued

Brought forw'd, \$6,337 00	Brought forw'd, \$6,372 00	Brought forw'd, \$6,417 00
Winterbotham, J... 5 00	Woolman, E..... 5 00	Wright, Mrs. M. O.. 5 00
Winzer, Emil J.... 5 00	Woolman, E. W.... 5 00	Wright, Mrs. W.... 5 00
Wolff, Mrs. L. S.... 5 00	Wray, Charles P.... 5 00	Wyatt, W. S..... 5 00
Wood, Walter..... 5 00	Wright, C. M..... 10 00	Wyly, Albert..... 5 00
Woodcock, John... 5 00	Wright, Horace W.. 5 00	Yenni, Mrs. C.... 5 00
Woods, Edward F.. 5 00	Wright, J. P..... 10 00	Young, T. S..... 5 00
Woodward, Dr. L. F. 5 00	Wright, M. F..... 5 00	Zollikoffer, Mrs.O.F 5 00
Carried forw'd, \$6,372 00	Carried forw'd, \$6,417 00	Total .....\$6,452 00

Report of the Treasurer of the National Association of Audubon Societies

BALANCE SHEET

Exhibit "A"

October 19, 1907

ASSETS

Cash in Farmers Loan and Trust Company.....		\$6,199 92
Furniture and Fixtures.....		120 80
Boat "Laughing Gull" No. 4.....	\$224 65	
Boat "Royal Tern" No. 3.....	2,426 81	
Boat "Grebe" No. 5.....	200 00	
Boat "Audubon Patrol" No. 6.....	57 00	
		2,908 46
<i>Investments—</i>		
Bonds United States Mortgage and Trust Company....	\$3,000 00	
Bonds and Mortgages on Real Estate in Manhattan (New York City).....	316,000 00	
		319,000 00
<i>Deficit</i> for the year ended October 19, 1907, per Exhibit "B".	\$8,864 90	
<i>Add—</i> General Fund deficit October 20, 1906.....	523 54	
	\$9,388 44	
<i>Less—</i> Balance on Special Fund, October 20, 1906.....	379 88	
		9,008 56
Total.....		\$337,237 74

LIABILITIES

Endowment Fund—

Balance October 20, 1906.....	\$14,772 00	
Received from Estate Albert Wilcox.....	320,000 00	
Life Members, 16 at \$100.....	1,600 00	
Life Members contributed to Endowment Fund.....	555 00	
		\$336,927 00
<i>Bradley Fund</i>	\$1,900 40	
<i>Less</i> amount invested.....	\$1,499 08	
Taxes, Repairs, etc.....	90 58	
	1,589 66	
		310 74
Total.....		\$337,237 74

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 19, 1907

Exhibit "B"

INCOME—

Members' Dues.....	\$4,640 00
Contributions.....	1,812 00
Interest received from Investments.....	11,152 90
Educational Leaflets, Sales.....	373 63

\$17,978 53.

EXPENSES—

Office and storeroom rent.....	\$692 54
Printing.....	1,178 85
Newspaper clippings.....	26 64
Stereopticon.....	147 46
Bank Exchange.....	14 52
Launch Expenses.....	129 79
Legislation.....	107 62
Educational Leaflets.....	1,594 32
Slides.....	503 10
Electros and half-tones.....	171 78
Signs.....	39 66
Colored plates and outlines of birds.....	2,025 58
Legal Services.....	1,332 00
Drawings of birds.....	76 00
Telephone.....	59 10
Envelopes.....	146 91
Lectures—Finley.....	532 35
Biological Survey, Expense.....	349 44
Telegrams.....	82 41
Express and cartage.....	116 84
Stenographic work.....	107 25
Postage.....	775 04
Office supplies.....	177 43
Miscellaneous expenses.....	193 09
BIRD-LORE.....	1,004 42
Wardens.....	2,200 05
Commissions.....	42 50
Office salaries.....	2,470 84
Big Game Protection.....	100 00
Curran & Mead, Press Information, etc.....	1,500 00
T. G. Pearson, Salary.....	1,625 00
T. G. Pearson, traveling expense.....	834 88
E. H. Forbush, salary and traveling expense.....	1,345 73
Miss Moore, salary.....	100 00
H. H. Kopman.....	337 50

Expenses carried forward.....\$22,190 64

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 19, 1907, continued

INCOME, brought forward.....		\$17,978 53
EXPENSES, brought forward	\$22,190 64	

STATE APPROPRIATIONS

Texas.....	\$1,582 98	
Vermont.....	10 00	
Rhode Island.....	87 88	
Florida.....	613 12	
Oregon.....	110 80	
Connecticut.....	71 22	
Virginia.....	31 65	
New York.....	104 15	
North Carolina.....	130 32	
Missouri.....	242 52	
Delaware.....	8 20	
Maine.....	182 68	
Louisiana.....	468 83	
California.....	81 30	
Wisconsin.....	36 57	
Michigan.....	209 39	
Illinois.....	19 60	
New Jersey.....	42 85	
South Carolina.....	199 88	
Washington.....	16 85	
Georgia.....	178 70	
Mississippi.....	166 55	
Alabama.....	2 25	
Pennsylvania.....	20 45	
Ohio.....	13 65	
Indiana.....	6 25	
Minnesota.....	4 15	
Maryland.....	10 00	
	<hr/>	4,652 79
Total expenses.....		<hr/> 26,843 43
Balance;- Deficit, see Exhibit "A"		<hr/> \$8,864 90

PEIRCE, GIMSON & CO., CERTIFIED PUBLIC ACCOUNTANTS,
40 Cedar Street

DOCTORS J. A. ALLEN, AND G. B. GRINNELL,
Auditing Committee,
National Association of Audubon Societies,
141 Broadway, New York City.

NEW YORK, October 25, 1907.

Dear Sirs:—In accordance with your instructions under date of the 11th inst., we have made an examination of the accounts of the National Association of Audubon Societies, for the year ending October 19, 1907.

The results of our examination are presented herewith in the following Exhibits, viz:—

EXHIBIT "A"—BALANCE SHEET, OCTOBER 19, 1907.

EXHIBIT "B"—INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 19, 1907.

We have examined all vouchers and paid cheques in connection with disbursements and found same correct. We have also examined the securities in the Safe Deposit Company of New York.

Yours very truly,

PEIRCE, GIMSON & CO.
Certified Public Accountants.

WM. DUTCHER, President,
141 Broadway, City.

NEW YORK, 346 Broadway,
October 28, 1907.

Dear Sir:—We have examined the report submitted by Messrs. Peirce, Gimson & Co., Certified Public Accountants, of the accounts of the National Association of Audubon Societies, for the year ending October 19, 1907, which report shows balance sheet October 19, 1907, and income and expense account for the year ending on the same day.

Vouchers and paid checks have been examined in connection with the disbursements, also securities in the Safe Deposit Company.

We find the account correct.

Yours truly,

J. A. ALLEN,
GEO. BIRD GRINNELL,
Auditing Committee.

Officers, Directors and Committees of the National Association of Audubon Societies for the Year 1907

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