













# Bird-Lore

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

EDITED BY

FRANK M. CHAPMAN

Official Organ of the Audubon Societies

AUDUBON DEPARTMENT EDITED BY

MABEL OSGOOD WRIGHT

AND

WILLIAM DUTCHER

VOLUME VIII 1906

198677

THE MACMILLAN COMPANY  
HARRISBURG, PA., AND NEW YORK CITY

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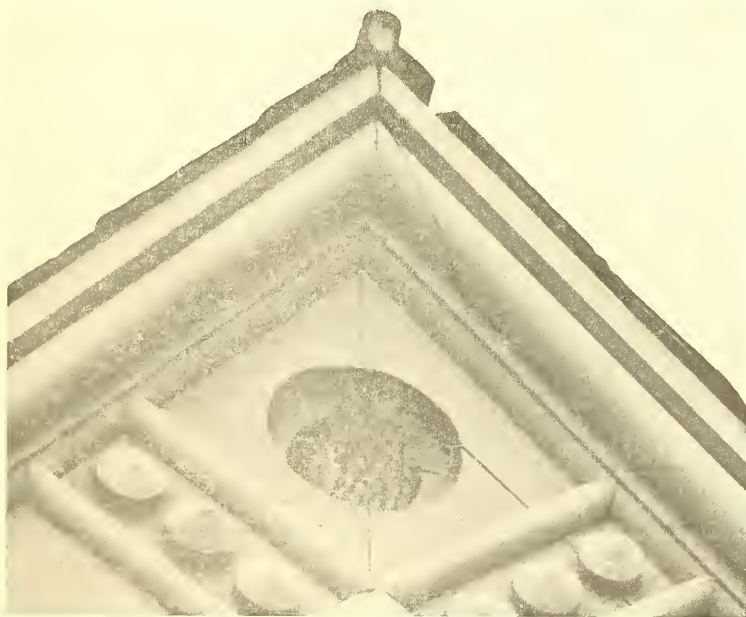
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# Bird-Lore



EDITED BY  
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES  
BY

**The Macmillan Company**

HARRISBURG, PA.

NEW YORK

LONDON

# Bird = Lore

January - February, 1906

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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 Ernest Thompson Seton's drawing of the Bobwhite. Presented to every subscriber to Vol. VIII, 1906, of BIRD-LORE. The original, printed on heavy plate paper, suitable for framing, is nearly 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, 1905, 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 Seton Bob-white picture, which should be considered due notification of the entry of your subscription.

If you do not care to renew, will you please notify us.







1. BACHMAN'S WARBLER, ADULT MALE.                      3. BACHMAN'S WARBLER, YOUNG FEMALE.  
 2. BACHMAN'S WARBLER, ADULT FEMALE.              4. WORM-EATING WARBLER, ADULT.  
 5. SWAINSON'S WARBLER, ADULT.  
 (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. VIII

JANUARY — FEBRUARY, 1906

No. 1

## An Experience in Tree-top Photography

### Young Broad-winged Hawks at Home in Southern Connecticut

By BERT FRANCIS CASE, Middle Haddam, Conn.

Illustrated by the author

THE following account of my first attempt at tree-top photography may interest the readers of BIRD-LORE who are ambitious in a like direction, as well as express something of the real pleasure of the experience,—except in the ending.

We found the nest May 3, by chance, as it was the migration season and we were out looking for new arrivals, especially among the Warblers. What called our attention to the nest was the few downy feathers we saw clinging to the outside. Otherwise we should have passed it by as a last year's Crow's nest. It was that in a way, as originally it had been built by Crows, to be later occupied by squirrels, and, last of all, taken possession of by a pair of Broad-winged Hawks. The Hawks had brought a small amount of new material, rearranged the old, and thus, with a minimum amount of work, fashioned a nest that met all practical needs and was evidently as satisfactory as though they had themselves laid the foundation sticks.

The nest was in a beech tree about thirty feet from the ground, securely placed in the crotch formed by the dividing of the main trunk into several good-sized branches.

The old collecting instinct was present, I will confess, with the first sight of the three eggs. Nesting Broad-wings were somewhat rare in Connecticut, and oölogical price-lists quoted the eggs at \$1.50 each. But this was only for a moment. The newly developed camera instinct soon reasserted itself.

My next visit to the nest was May 8, when I went prepared to begin my series of camera studies and realize some of my dreams of doing something worth while in nature photography. My ardor cooled somewhat when the very real difficulty of securing the legs of the tripod to various limbs of

the tree was encountered. It appeared easy enough from below, but I soon found that one's movements in a tree-top were of necessity somewhat restricted. After all, I had to focus by the scale, guessing at the distance. A tripod screw was lost in the operation, and later, in searching for the screw, my pocketbook was discovered among the leaves. It had been unknowingly deposited there during my aerial performance. By the dark-room test the plates exposed on this trip were pretty much all a failure.

Again (May 11) I climbed the tree and found no change except that the Hawk had added to the nest some old tent-caterpillar web mixed with small sticks and particles of decaying vegetation. Exposed three plates, and later discovered that two were light-struck and the third out of focus. The necessity of devising some way of focusing by the ground-glass was evident.



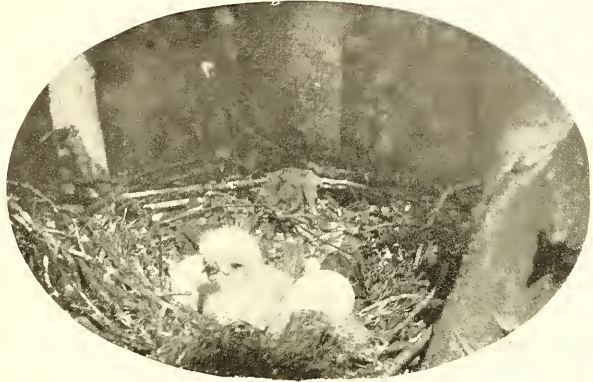
TREE-TOP PHOTOGRAPHY  
Photographing the nest of a Broad-winged Hawk

On May 22 I found a very great change had taken place. In place of two of the eggs, there were two yellowish down-covered birds with exceptionally large heads and noticeably black bills and yellow ceres. It was a fascinating sight. The little fellows were undoubtedly Hawks, but very gentle and lovable they appeared to be just then. Exposed six plates. Strapped the tripod to limbs and tried to use the ground-glass, but something or other seemed always in motion and I had a feeling all the time that there would be disappointments. Some small twigs with green leaves had been added to the nest. There was also in the nest a short-tailed shrew, its body being still warm. Mrs. Broad-wing had been about to prepare it properly for the youngsters, no doubt, when she saw us coming.

June 1 I took with me to the nest a screw for firmly securing the camera in any desired position and thus dispensing entirely with the tripod. The screw was made by the local blacksmith, at a cost of twenty-five cents,

and, by using a pocket wrench, could easily be forced into the hardest green wood.

Since my last visit, the third egg had hatched and all the young were now covered with down resembling wool of a dirty, or buffy white color. Feathers were appearing on breast and wings. The youngsters appeared sleepy; in fact, one picture was taken as they lay with their eyes closed. The mother bird had brought more material to the nest, twigs of cedar and beech with the beech leaves largely developed.



TWO NEWLY HATCHED BROAD-WINGED HAWKS;  
ONE EGG WHICH HATCHED LATER

In the arrangement of the beech twigs

there was just a suggestion that they may have been so placed for shade, as the situation of the nest was rather open and some rays of the sun seemed always upon the young. But this may have been only a fancy.

From among the sticks of the nest I picked up some freshly disgorged pellets, composed mostly of the fur of such small mammals as mice, moles, shrews, etc., with some remains of insects hard to identify, and part of a large black ant. There were also traces of the feathers of some small bird.

Around the tree on the ground were the discarded egg-shells that had simply been thrown overboard when the young Hawks had no further use for them. There seemed to be no special care to conceal the location of the nest. The leaves of the beech and even of neighboring trees were stained in every direction by the excrement of the young. Some of the stains were as much as seven or eight feet from the nest horizontally, though on a slightly lower plane.

On this trip I took with me a box covered with burlap and with a hole in one end to suggest a lens. This dummy camera I nailed to a limb four or five feet from the nest, expecting the old bird to become so familiar with it that later it could be replaced by the camera similarly covered (*a la* Herbert K. Job), and a picture obtained of the mother bird when she visited her young.

On June 9, as I approached the nest, the old Hawk appeared for the first time, flying screaming through the wood. The young Hawks certainly had not been neglected since my last visit. They seemed twice the size of a week ago. As my head appeared above the edge of the nest all three

were sitting erect, like soldiers, on its further edge in open-mouthed astonished protest at their big uninvited, unwelcome visitor. But they were not so fierce as they looked, for they made no attempt to strike my hand when I placed it on their heads. No longer, however, were they silent lookers-on. They at once proved the soundness of their lungs. While my hand was on one he would stop screaming, but start up again at once when it was removed.

This time there was a short-tailed shrew and a meadow mouse in the



YOUNG BROAD-WINGED HAWKS, DOZING, JUNE 1

nest. What pellets I examined were, as heretofore, composed of the undigested remains of small mammals. I also noticed in the nest a tail-feather of some small bird of the Sparrow kind.

June 10 was the day when I thought to get a picture of the old Hawk. Having climbed to the nest and fixed the camera in place of the dummy, I discovered that the burlap covering had accidentally fallen to the ground! I was not at all eager for that extra climb—the day was extremely warm—but there was no escape. At last things were in shape, yet not before the old bird, in response to the incessant calling of her youngest hopeful, had put in an appearance. The other two youngsters were mostly silent observers, but their brother of tenderer days actually screamed himself hoarse.

As I sat in cramped position in my hastily constructed booth on

the hillside, thread in hand and eyes fastened on the nest, I had my forebodings.

Time passed—a generous slice of it—when suddenly Mrs. Broad-wing began saying something out loud in the woods right behind me. At once, with sinking heart, I realized how ill-protected I was from a Hawk-eye attack in the rear. Evidently she was perched where she could see me. It took her some time to express her whole mind, but at last she went sailing off with a few parting remarks whose personal application was not hard to get.



YOUNG BROAD-WINGED HAWKS. JUNE 9

Note the meadow mouse and shrew on the rim of the nest

No picture of Mrs. Broad-wing that day. Instead, another climb to secure the camera and place the dummy again in position.

It was nearly a month (July 6) before circumstances permitted me to again visit the Broad-wings.

It was with small expectation of finding any of them at home that I took my camera and crossed the river for a last friendly call.

My state of mind may perhaps be imagined when I found not simply no Hawks, but no nest. A little search, however, revealed fragments of the nest here and there as it had been thrown from the tree.

I at once began an investigation by interviewing a boy at the nearest house, a third of a mile distant.

Boy No. 1 knew boy No. 2 who had found the nest and taken the young Hawks home. Two he had given away, one he had kept.

Calling at the home of boy No. 2, I found that one Hawk (given to boy No. 3) had died. Another (given to an Italian) had been tied out by a string and had escaped. The third he had kept—until his mother became very nervous over it.

"It was liable to get out," she told her son, "and kill some of the chickens some day when they were away. And if they should let it go, it would most likely kill somebody else's chickens, so he had better take the axe and cut its head off." And this he had proceeded at once obediently to do! (Oh, wise parent! Oh, sacred chickens!)

"The way it tore a Sparrow in pieces that had been put into its cage made her fear," she said, "for the fate of her chickens if they were not carefully protected."

A hungry Hawk must have food of some kind, I suggested. And the Broad-wings were certainly not chicken-thieves. They were the farmer's friends and their lives should not be wantonly sacrificed.

Pityingly she looked at me. A Hawk was a Hawk to her, and never could be anything else,—an outlaw, an enemy, always proper food for shot or the axe and the dung-hill.

The nest, she told me, had been robbed June 24, and when the boy climbed the tree the young Hawks flew to the ground.

As I turned homeward I felt depressed. A deed had been done in nature for which there was no good excuse. Were country people always to dwell under the power of a foolish prejudice?

## My Chickadee Family

By MARION BOLE

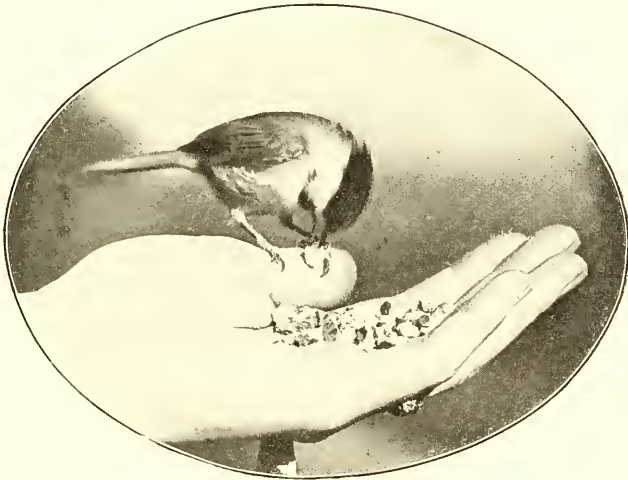
**B**ECAUSE of its cheerful and confiding disposition, the Chickadee is easily the favorite among the winter birds. A bird that can sing on a morning when the thermometer has registered thirty or forty below zero is certainly a most cheering neighbor during the winter, and one which has remained with me through the summer has proved itself equally desirable as a summer boarder.

With the possible exception of the Red-breasted Nuthatch, I have found the Chickadee the most easily tamed of the winter birds. It is not usually a difficult matter to induce them to come to the hand for food. There is, however, quite a difference in individual birds of the same species; some are much more easily tamed than others. One bird, which is the tamest of all, I called the Chickadee of the Chair, because of his habit of coming to the



back of a piazza chair which stands in front of a window, evidently with the intention of calling some one out. He still keeps up the habit, and, if no one happens to notice, will often flutter in front of the window to call attention, or, if unsuccessful there, will try other windows.

He seems to feel very much at home on my hand, and usually eats his food there instead of carrying it away as the others mostly do. This bird has been with me for two winters, at least. Last summer he left me about the middle of May and returned some time in August; but this summer he had evidently made up his mind to remain within reach of the food supply.



A CHICKADEE FRIEND

Early in the spring I noticed that he always came with another bird, which I took to be his mate. She was a shy little thing, but learned to come for a nut when thrown to her. Later in the season I have often seen him carry a nut to her in the tree and then come back for another for himself.

On May 19, I saw both birds picking wool from a blanket on the line, but did not discover the nest, although I knew it was not far away. After a time he commenced to carry food (I have not the exact date), but on June 20 he appeared in the tree with six little ones. At first they showed no fear of me, and, when they discovered the source of the food supply, one promptly lighted on my head and another on my shoulder. Evidently such conduct did not meet with the approval of the parent, for he chased them most vigorously whenever they came near me.

As they grew older, however, they got to be too many for him, and would fairly mob the poor fellow whenever he appeared. At such times I suppose he grew desperate and often fed them from my hand.

I saw very little of the mother bird either at this time or later. The

father, if I have determined the sex correctly,\* took most of the care of the little ones, at least when they were about the house.

As soon as the young were weaned they commenced to disappear one after another, and after July 1 I saw no more of them. Possibly they came to some tragic end, but I prefer to think that the parents took them away and left them where they could not find their way back.

On July 15 my bird commenced to carry food again, and on July 29 he came with two new babies. They seemed very young and helpless, but, as before, were soon fed on my hand. They would often come together, and he would feed them by turn. Although fond of nuts himself, he would take nothing but doughnuts for the young. I suppose it was too much work to break up the nuts. When the little ones were about old enough to care for themselves, it was funny to see him give the first a bite of food, and then a dab with the bill. Sometimes he would get so energetic with his cuffs that they would have to take refuge under my hand, clinging with their feet to my fingers.

On August 13 one of the young birds came alone, and I heard him sing the "Phœbe" song, as well as the *chick-a-dee-dee*. I had heard strange trembling notes for a day or two, and suspected that they came from the young birds, but had not been able to verify the suspicion.

They have been feeding themselves for some time now, but are still with me and come to my hand for food. They often come together, but I am sorry to say that they quarrel most shamefully. When very hungry they will eat together peacefully for a short time, but before long one or other of them will commence to call names. What they say does not seem to me at all objectionable. It sounds very much like *Chickadee, chickadee*, but I have learned that when said in a certain way with the accent on chick it is always the signal for a regular pitched battle.

The father bird often comes when the young birds are eating, but he always sends them off in a hurry. Evidently he has no intention of sharing his food with any of his offspring. One of the young birds sometimes sleeps in the piazza screen when it is rolled up for the night. The photograph shows one of the young birds eating. As they were rather shy of the camera, we did not succeed in getting the two together.

\*Chickadees are apparently not to be distinguished sexually by their notes, both sexes uttering the 'Phœbe' call; and the fact that among birds the female parent is usually the more solicitous for the safety of the young, prompts the suggestion that our correspondent is possibly in error in this determination of sex.—ED.



WOODCOCK ON NEST

The remarkable tameness of this species while incubating is well illustrated by the fact that it frequently permits itself to be touched without leaving its eggs.  
Photographed by E. Van Aken, at New Brunswick, N. J., March 9, 1905

## The Dipper in Colorado

By EVAN LEWIS

IN 1891 I found on Bear Creek seven nests of the Dipper within a little over a mile of the cañon. All were placed where they could be reached only by long ladders or ropes. The creek was high and dangerous, so all nests were supposed to be perfectly safe; and, as this was May 30, the young birds should have been flying in a few days.

In 1894 I again went up Bear Creek Cañon, but not an Ouzel or nest was to be seen where they were quite numerous three years before.



DIPPER AND NEST

Photographed by Evan Lewis, at Idaho Springs, Colo., May 23, 1903

Nests were seen twenty miles farther up stream, but as they were easily reached, and trout fishing was there carried on daily, it is almost safe to presume that no young birds were reared there. One pair built under a bridge on Chicago Creek, and, as the water ran very swift and cold within a foot of the nest, they always succeeded in bringing out their brood.

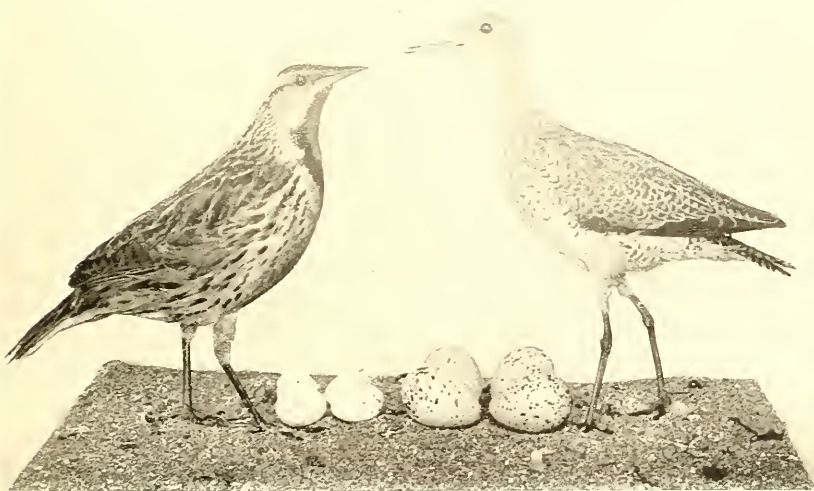
For nesting material Dippers seem to prefer moss, but if moss is not available they use grass roots, which they obtain under the water. When started, the nest is a ring of nesting material, with the bare rock on which it is placed in the center. The nest proper is placed inside after the dome is completed and is usually made of leaves, though other material is sometimes

used. I have found nests deserted where the inside nest was saturated with splashing water, so there can be too much water, even for a Dipper.

The young birds, when apparently about half the size of the old ones, drop into the running water and prove to be good swimmers, as they play about, dive and appear to be in their proper element. I have seen as many as six at one time and have known as few as three eggs to comprise the set.

Dippers are not generally known as song-birds, as they are usually found where the water makes so much noise that their song can not be heard; but if one goes near the nest and remains long enough for both birds to become greatly disturbed, the male bird will sing a song entirely different from any bird song I have ever heard.

This little bird appears to be especially persecuted by fishermen, though no bird is more deserving of their protection. Their food is insects that adhere to the gravel where the trout do their spawning, as well as other water life, but I have never heard that they disturb the spawn or young fry. They sometimes remain on mountain streams till they are entirely frozen over. When they decide to migrate they fly in circles until high enough to clear the mountains and then start boldly for warmer regions, and are not again seen on that stream for the winter. They do not seem to mind cold weather as long as the streams remain open, as I have seen them in January where the water from a mining tunnel kept the creek clear of ice.



MEADOW-LARK AND EGGS. BARTRAM'S SANDPIPER AND EGGS

Illustrating the difference in the size of the eggs of birds of the same size, in relation to the condition of the young at birth. The young Meadow-larks are born practically naked and are reared in the nest; the young Sandpipers are born feathered and leave the nest soon after hatching.



GREEN HERON ON NEST

## The Little Green Heron

By RETT E. OLMSTEAD

THE spring and summer of 1905 furnished abundant opportunity for the study of the Little Green Herons in this vicinity. The birds are numerous and several nests have been found and the birds studied. The birds are found more frequently than elsewhere along the creeks, though not infrequently they are found nesting in an orchard sometimes quite a distance from water.

LaSalle county, Illinois, furnished my birding ground for study the past season very largely. The Herons were seen fishing along the creeks and their courses noted, and finally a nest was discovered in a hawthorn some twenty rods from Indian Creek. The nest is made of sticks alone, and is a very simple affair at that, somewhat similar to the nest of the Mourning Dove, with only enough sticks to hold the eggs. The nests found, twelve or fifteen of them, were usually located in the top of the trees, some fifteen feet from the ground.

In the orchard, an old and largely abandoned one, with tall scraggly trees, and located within fifteen rods of Indian Creek, I counted eleven nests of the Herons, but two of them occupied at the time. At any time,

upon going into the orchard one might see a dozen old birds flying about. I found them rather shy and yet had little trouble getting them used to the camera, the camera being placed some three or four feet from the nest, and somewhat secreted with twigs placed about for that purpose.

The cut showing an old bird on nest was taken May 29, the same day as the photograph of the eggs. The old bird returned to the nest several times after having been frightened away, and the first time was gone two hours, but afterward would be gone but a short time before her return. Sometimes where the tree in which the nest was located was isolated, two birds were seen, indicating that both were interested in the house-keeping.

It was with difficulty that a photograph was obtained of the young fledged birds shown in the cut, since they were nearly large enough to fly. When I attempted to climb the apple tree, they all left the nest and hopped about from limb to limb in the tree, not attempting to leave the home tree, however.

One peculiarity of the young birds that I noticed was the disgorging of food when pursued in the tree. Why, I am unable to tell, unless it was that they might be able to hop better. I saw them in the act of disgorging, and, upon examination of the matter disgorged, I found several minnows, some an inch and some two inches long. Crayfish also were in evidence; indeed, from what I saw I should judge that crayfish made a large portion of their food.

The old bird, when returning to the tree and alighting, could be heard to give a sort of cackle, not altogether unlike the cluck of a hen, and the tail would twitch. The young birds, when large enough to be out of the nest, could be seen in the tree usually standing very erect. I noticed, with some interest, their manner of getting about in the tree, using their wings as hands, before they were large enough to fly, and hooking the head over a limb to assist them.



NEST AND EGGS OF GREEN HERON, MAY 29, 1905

## Bird-Lore's Sixth Christmas Bird Census

**B**IRD-LORE'S sixth Christmas Bird Census has brought returns from a larger number of observers than any of the five which have preceded it. From numerous localities the report comes of the presence of a comparatively small number of winter birds. Whether this state of affairs is due to purely local conditions or to an actual decrease in bird-life, cannot be determined from the report of one, but of many observers, whose labors should not be confined to one season but should extend over several.

In these annual censuses, therefore, we are gradually accumulating a mass of exact information, interesting in itself, and in the aggregate affording a definite basis for comparison with results obtained in succeeding years, and having, consequently, a real scientific value.

Millbrook, Ontario.—Time, 8.30 A. M. to 11.45 A. M. Bright, two inches of snow; no wind; temp., 30°. Great Blue Heron, 1; American Woodcock, 1; Ruffed Grouse, 3; Red-tailed Hawk, 1; Downy Woodpecker, 3; Blue Jay, 5; White-breasted Nuthatch, 2; Chickadee, 10; Brown Creeper, 1. Total, 9 species, 27 individuals.—SAMUEL HUNTER.

Reaboro, Ontario.—Time, 10.40 A. M. to 12.45 P. M.; 2.45 P. M. to 4.55 P. M. Sky a little dull; ground covered with snow, snowing in forenoon; wind west; temp., about 32°. Ruffed Grouse, 3; Hairy Woodpecker, 1; White-breasted Nuthatch, 4; Chickadee, 24. Total, 4 species, 32 individuals.—E. WELLINGTON CALVERT.

Queenston, Ontario, Canada.—December 23; time, 8 A. M. to 1.30 P. M. Cloudy, light rain and snow; ground partly covered with snow; moderate west wind; temp., 32°. Herring Gull, about 75; other Gulls, probably Bonaparte's, 5; Crow, about 50; Blue Jay, 2; Junco, 1; Chickadee, 18. Total, 6 species, 151 individuals. Other than Gulls and Crows, there seemed to be fewer birds than usual, in this locality notwithstanding the very open winter we have had thus far.—HARRY H. LARKIN.

South Portland and Cape Elizabeth, Me.—Time, 8 A. M. to 11.30 A. M. Clear, ground partly covered with snow; wind southwest; temp., 18°. Herring Gull, 125; Ruffed Grouse, 1; Crow, 3; Purple Finch, 15; Northern Shrike, 3; Myrtle Warbler, 13; Golden-crowned Kinglet, 12; Robin, 2. Total, 8 species, 173 individuals.—LOUIS E. LEGGE.

Farmington, Strong and Temple, Maine.—Time, 7 A. M. to 6 P. M., less one hour in P. M. Clear till 9 A. M.; sky thinly veiled with snow-haze balance of day; "mare's tail" clouds; about a foot of heavily crusted snow; temp. at starting, 2°; at return, 16°. Ruffed Grouse, 3; Hairy Woodpecker, 1; Downy Woodpecker, 3; Blue Jay, 7; American Crow, 1 (heard); Redpoll, 16; American Goldfinch, 2; Tree Sparrow, 4; White-breasted Nuthatch, 11; Chickadee, 34; Ruby-crowned Kinglet, 2. Total, 11 species, 85 individuals.—LEROY MELVILLE TUFTS.

Cornish, N. H.—Time, 10 A. M. to 11 A. M. Distance covered, one-half mile; open fields edged with bits of woodland; temp., 20°, no wind, partially cloudy; thin covering of snow, except on south slopes where there are many bare patches. Pileated Woodpecker, 1; Chickadee, 14; Blue Jay, 1; Tree Sparrow, 15; Goldfinch, 20; Snow-Bunting, about 300. Total, 6 species, about 350 individuals.—L. A. PARRISH.

Wilton, N. H.—Time, 8.45 A. M. to 11.45 A. M. Clear, ground lightly covered with snow in patches; wind west, light; temp., 20° to 40°. Hairy Woodpecker, 2; Blue Jay,



8; American Crow, 9; Snowflake, 2; White-breasted Nuthatch, 1; Chickadee, 16; Golden-crowned Kinglet, 2. Total, 7 species, 40 individuals.—GEORGE G. BLANCHARD.

**St. Albans, Vt.**—December 27, 1905; time, 2 P. M. to 4 P. M. Hazy sun; eight inches snow in the woods; wind southwest, light; temp., 44°. Downy Woodpecker, 3; Blue Jay, 2; Northern Shrike, 1; White-breasted Nuthatch, numerous, saw distinctly but 1; Black-capped Chickadee, plentiful, counted 12. Total, 5 species, 19 individuals.—LELIA E. HONSINGER and MRS. C. E. HEPBURN.

**Burlington, Vt.**—Time, 10 A. M. to 11 A. M., 2.45 P. M. to 3.30 P. M. Cloudy; ground covered with snow; south wind, light; temp., 20°. Herring Gull, 1; Downy Woodpecker, 2; Crow, 5; Snowflake, about a dozen; Goldfinch, 7; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 2; Brown Creeper, 3; Tree Sparrow, about 100; Junco, 1; Chickadee, 4. Total, 11 species, 142 individuals.—EMMA E. DREW.

**Groton, Mass.**—December 27; time, 10.30 A. M. to 12.30 P. M., 2 P. M. to 5 P. M. Fair; ground bare; temp., 45°; wind west, light. Ruffed Grouse, 2; Crow, 35; Meadowlark, 3; Tree Sparrow, 10; Brown Creeper, 3; White-breasted Nuthatch, 2; Chickadee, 20; Golden-crowned Kinglet, 2. Total, 8 species, 77 individuals.—G. F. HUBBARD and A. G. WHITNEY.

**Groton, Mass.**—December 29, 1905; time, 11 A. M. to 12 M., 2 P. M. to 4.30 P. M. Meadows, upland fields, and mixed woods; ground bare; sky clouded; light, intermittent showers, and heavy fog; temp., 42°; no wind. Ruffed Grouse, 1; Downy Woodpecker, 1; Blue Jay, 2; Crow, 18; Meadowlark, 3; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 11; Golden-crowned Kinglet, 4. Total, 10 species, 44 individuals.—A. G. WHITNEY.

**Fitchburg, Mass.**—December 24; time, 9.30 A. M. to 1 P. M. Clear; ground nearly bare; wind northwest, fresh; temp., 34°. Hairy Woodpecker, 2; Downy Woodpecker, 1; Blue Jay, 2; Crow, 4; Tree Sparrow, 4; White-breasted Nuthatch, 3; Chickadee, 7; Golden-crowned Kinglet, 5. Total, 8 species, 28 individuals.—MILTON L. CUSHING, F. N. DILLON and GEORGE F. HUBBARD.

**West Roxbury, Mass.**—December 23; time, 11 A. M. to 12 M., 2.30 P. M. to 4 P. M. Raining; ground mostly bare; no wind; temp., 38°. Downy Woodpecker, 1; Flicker, 1; Blue Jay, 4; Crow, 6; Tree Sparrow, 5; Northern Shrike, 1; Brown Creeper, 2; Chickadee, 5; Golden-crowned Kinglet, 1. Total, 9 species, 26 individuals.—CHARLES E. HEIL.

**Cambridge, Mass.**—December 24, 1905; time, 9.30 A. M. to 11.30 A. M. Cloudy; ground bare; wind northwest, strong; temp., 35°. Herring Gull, estimated, 375; Black Duck, estimated, 30; Sparrow Hawk, 1; Flicker, 3; Crow, 9; Chickadee, 5. Total, 6 species, estimated 423 individuals.—SAMUEL A. ELIOT, JR., and JOHN H. BAKER.

**Cambridge (Fresh Pond Marshes), Mass.**—December 20; time, 9.15 A. M. to 12 15 P. M. Clear; two inches of snow on ground; wind northwest, light; temp., 38° to 48°. Ring-necked Pheasant, 5; Flicker, 3; American Crow, 13; Red-winged Blackbird, 6 (the adult male singing continuously a warbling song like Catbird's); American Goldfinch, 1; White-throated Sparrow, 1; Tree Sparrow, 165; Song Sparrow, 5 (one singing spring song); Swamp Sparrow, 6; Northern Shrike, 1; Chickadee, 12. Total, 11 species, 218 individuals.—HORACE W. WRIGHT.

**Boston (Arnold Arboretum), Mass.**—December 22; time, 10 A. M. to 12.30 P. M. Fair; ground bare; wind southwest, light; temp., 46° to 52°. Flicker, 2; Blue Jay, 11; American Crow, 13; American Goldfinch, 1; Junco, 10; Song Sparrow, 2; Northern Shrike, 1; Myrtle Warbler, 9; Brown Creeper, 1; Chickadee, 14; Golden-crowned Kinglet, 6. Total, 11 species, 70 individuals.—HORACE W. WRIGHT.

**Boston and Cambridge, Mass.**—December 23; time, 8.45 A. M. to 3 P. M. Light rain; ground bare; wind southwest, light; temp., 42°. Charles River: Great Black-backed Gull, 1; Herring Gull, 50; American Merganser, 3; American Golden-eye, 60;

Bufflehead, 8. Total, 5 species, 122 individuals. Back Bay Fens: Black Duck, 5; Red-legged Black Duck, 73; Mallard, 1; Flicker, 6; American Crow, 1; Tree Sparrow, 2; Song Sparrow, 5; Chickadee, 3; Robin, 1. Total, 9 species, 97 individuals. Jamaica Pond: Black Duck, 38; Redhead, 1 drake; Flicker 3; Blue Jay, 2; Crow, 3. Total, 5 species, 47 individuals. Note: December 27. Mocking Bird, 1. Fresh Pond: Herring Gull, 2; American Merganser, 2; Red-legged Black Duck, 90; Canvasback, 1 drake. Total, 4 species, 95 individuals.—HORACE W. WRIGHT and GORDON B. WELLMAN.

Lynn Beach and Nahant, Mass.—December 26; time, 9.45 A. M. to 4.15 P. M. Clear; bare ground; wind west, light; temp., 32°. Horned Grebe, 1; Loon, 2; Red-throated Loon, 1; Great Black-backed Gull, 24; Herring Gull, 1,200; Red-breasted Merganser, 30; American Golden-eye, 24; Bufflehead, 8; Old Squaw, 18; White-winged Scoter, 16; Surf Scoter, 3; Shore Lark, 11; American Crow, 104; Song Sparrow, 2. Total, 14 species, 1,444 individuals.—GORDON B. WELLMAN and HORACE W. WRIGHT.

Ipswich Beach (and road to it), Mass.—December 21; time, 9 A. M. to 2 P. M. Rather strong west wind; little snow on ground; fair; temp., 45°. Red-throated Loon, 1; Kittiwake, 1; Black-backed Gull, 18; Herring Gull, 350; Red-breasted Merganser, 400; Black Duck, 6; White-winged Scoter, 8; Sparrow Hawk, 1; Downy Woodpecker, 1; Shore Lark, 9; Crow, 118; Meadowlark, 1; Chickadee, 18. Total, 13 species, 880 individuals.—C. BOSSON.

Squantum and Moon Island, Mass.—December 28; time, 9 A. M. to 12 M. Clear; ground bare; wind west, light; temp., 37° to 53°. Great Black-backed Gull, 2; Herring Gull, 175; Red-breasted Merganser, 8; American Scaup Duck, 200; American Golden-eye, 225; Bufflehead, 22; Old Squaw, 2; Sparrow Hawk, 1; Flicker, 1; American Crow, 1; Snow Bunting, 60. Total, 11 species, 697 individuals.—SARGENT H. WELLMAN, HORACE W. WRIGHT and GORDON B. WELLMAN.

Taunton, Mass.—December 26; time, 9.15 A. M. to 2.40 P. M. Clear; ground bare; wind southwest, strong; temp., 26°. Ruffed Grouse, 2; Downy Woodpecker, 2; Flicker, 6; Blue Jay, 15; Crow, 30; Meadowlark, 3; Tree Sparrow, 42; Junco, 97; Song Sparrow, 3; Myrtle Warbler, 1; Chickadee, 17; Golden-crowned Kinglet, 3; Robin, 1. Total, 13 species, 222 individuals. December 16, we saw a Vesper Sparrow. Two Robins were seen Christmas Day.—EDITH M. HODGMAN and LUCY B. BLISS.

Providence, R. I.—December 27; time, 12 M. to 2.30 P. M. Partly overcast; ground bare; wind west, light; temp., 40°. American Crow, 9; Junco, 40; Chickadee, 5; Golden-crowned Kinglet, 8. Total, 4 species, 62 individuals.—ANNA E. COBB.

Woonsocket, R. I.—December 24; time, 10 A. M. to 11.30 A. M. Clear; ground bare; wind northwest, very strong; temp., 32° to 34°. Blue Jay, 3; Song Sparrow, 1; Goldfinch, flock of 30; Brown Creeper, 2. Total, 4 species, 36 individuals.—CLARENCE M. ARNOLD.

Woonsocket, R. I.—December 26; time, 1.45 P. M. to 3.30 P. M. Clear; ground bare; wind southwest, light; temp., 34° to 30°. Five miles, along roads and through fields and woods. Saw only 1 bird, a Crow.—C. M. ARNOLD and A. FEELY.

Glocester, R. I.—Time, 10.30 A. M. to 2.15 P. M. Clear; patches of snow on ground; wind southwest, light; temp., 25°. Ruffed Grouse, 3; Downy Woodpecker, 3; Blue Jay, 5; American Crow, 7; Tree Sparrow, 12; Junco, 3; White-breasted Nuthatch, 2; Chickadee, 5. Total, 8 species, 40 individuals.—J. IRVING HILL.

New London, Conn.—December 26; time, 11.15 A. M. to 1.15 P. M., 3 P. M. to 4 P. M. Clear; ground bare; wind west, light, strong in P. M.; temp., 33° to 38°. Herring Gull, 41; Sparrow Hawk, 1; Crow, 3; Goldfinch, 18; Junco, 21; Song Sparrow 1; Northern Shrike, 1; White-breasted Nuthatch, 1; Chickadee, 9; Brown Creeper, 4. Total, 10 species, 100 individuals.—FRANCES M. GRAVES.

New Haven, Conn.—Time, 9.15 A. M. to 11.45 A. M. Bright sunshine; wind, very light, southwest; temp., 33°. Herring Gull, 14; Red-tailed Hawk, 2; Blue Jay, 3; Crow,

4; English Starling, 1; Slate-colored Junco, 7; Tree Sparrow, 35; Song Sparrow, 1; White-breasted Nuthatch, 1; Chickadee, 3. Total, 10 species, 71 individuals.—CLIFFORD H. PANGBURN and DWIGHT B. PANGBURN.

**New Haven, Conn.**—Time, 3.15 P. M. to 5 P. M. Partly cloudy; ground bare; wind light, southwest; temp., 36°. Tree Sparrow, 1; Song Sparrow, 1; Myrtle Warbler, 3; Chickadee, 6. Total, 4 species, 11 individuals.—D. B. PANGBURN and A. A. SAUNDERS.

**Edgewood and West Rock Parks, New Haven, Conn.**—Time, 9 A. M. to 1.30 P. M. Clear; ground bare; wind west, light; temp., 22°; 10 miles covered. Belted Kingfisher, 1; Downy Woodpecker, 2; Blue Jay, 13; Crow, 4; American Goldfinch, 13; Tree Sparrow, 24; Slate-colored Junco, 4; Song Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 5; Chickadee, 14. Total, 11 species, 83 individuals.—A. A. SAUNDERS and A. W. HONYWILL.

**New Haven, Conn.**—Time, 3.30 P. M. to 4.45 P. M. Clear; ground bare; wind southwest, light; temp., 36°. Blue Jay, 2; Crow, 1; Tree Sparrow, 6; Song Sparrow, 1. Total, 4 species, 10 individuals.—A. W. HONYWILL and C. H. PANGBURN.

**Westville, Conn.**—Time, 11.15 A. M. to 11.35 A. M. Clear; ground bare; wind southwest, light; temp., 35°. (Observed while riding my bicycle through a road in Westville): Blue Jay, 3; American Crow, 4; Song Sparrow, 1; English Sparrow, 10. Total, 4 species, 18 individuals.—HAROLD M. FOWLER.

**Washington, Conn.**—Time, 9 A. M.; 2 P. M. to 4 P. M. Clear in forenoon, cloudy in afternoon; ground bare; wind west, light; temp., 36°. Ruffed Grouse, 1; Downy Woodpecker, 1; Blue Jay, 1; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 2. Total, 6 species, 10 individuals.—WILHELMINA C. KNOWLES.

**Bristol, Conn.**—Time, 6.45 A. M. to 3.45 P. M. Clear; ground bare; wind light, northwest; temp., 16°. Ruffed Grouse, 7; Sparrow Hawk, 1; Downy Woodpecker, 6; Blue Jay, 10; Crow, 10; Tree Sparrow, 40; Junco, 4; Song Sparrow, 1; Northern Shrike, 3; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 48 (27 feeding on ground); Golden-crowned Kinglet, 2. Total, 13 species, 178 individuals. Birds are very scarce and quiet. More Shrikes seen than in six years past. Does this account for scarcity of other birds?—R. W. FORD, F. W. HOLMES, E. E. SMITH and FRANK BRUEN.

**South Norwalk, Conn.**—Clear, beautiful day; ground bare; temp., 40°, noon. Distance, walked 7 miles and drove 10 miles. (Holboell's?) Grebe, 1; Pied-bill Grebe, 4; Herring Gull (estimate low), 450; Red-breasted Merganser, 4; American Golden-eye (low), 125; Old Squaw, 10; Hawk (Red-shouldered?), 1; Sparrow Hawk, 1; Downy Woodpecker, 2; Shore Lark, 9; Blue Jay, 2; Crow, 35; Starling, 4; Goldfinch, 26; Tree Sparrow, 30; Song Sparrow, 6; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 24; Bluebird, 6. Total, 21 species, 744 individuals. Less birds this winter than usual. Snow-flakes have been plentiful on marshes.—WILBUR F. SMITH.

**Jay, Adirondacks, N. Y.**—Time, 8.30 A. M. to 2 P. M. Cloudy; ground covered with snow; no wind; temp., 28° to 32°. Hairy Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 7; White-breasted Nuthatch, 2; Chickadee, 39. Total, 6 species, 69 individuals.—NELLIE M. DAY.

**Canandaigua, N. Y.**—December 26; time, 7.45 A. M. to 5.15 P. M. Clear; ground bare; wind southwest, fresh; temp., 28° to 38°. Loon, 1; Herring Gull, 9; Red-breasted Merganser, 2; American Golden-eye, 3; Bufflehead, 2; Old Squaw, 2; Canada Goose, 50 (approximate); American Rough-legged Hawk, 1; American Sparrow Hawk, 1; American Crow, 90; Red-winged Blackbird, 1; Tree Sparrow, 11; Song Sparrow, 4; Brown Creeper, 2; White-breasted Nuthatch, 5; Chickadee, 11; Robin, 1; Ring Pheasant, 1. Total, 18 species, 197 individuals.—FRANCIS G. and MAURICE C. BLAKE.

**Auburn, N. Y.**—Time, 7 A. M. to 3 P. M. Cloudy, with strong southwest wind and light snow-flurries; temp., 26°. Horned Grebe, 1; American Merganser, 3; Red-breasted Merganser, 10; Hooded Merganser, 3; American Golden-eye, 3; Sparrow Hawk, 1;

Belted Kingfisher 1, (accidental); Downy Woodpecker, 3; Crow, 47; Chickadee, 2; White-breasted Nuthatch, 3. Total, 11 species, 77 individuals.—FREDERICK J. STUPP.

Geneva, N. Y.—Time, 11 A. M. to 3 P. M. Ground bare at start; sky over-cast, snow-squalls made seeing difficult at times; temp., 28° to 40°. Seneca Lake and one mile and one half west. Distance covered, ten miles. Horned Grebe, 5; Herring Gull, 2; Black Duck, 120; American Scaup Duck, 40; American Golden-eye, 3; Old Squaw, 2; Canada Goose, 18; Downy Woodpecker, 1; American Crow, 23; White-breasted Nuthatch, 1. Another observer on part of same route at same time reports Slate-colored Junco, 2; Chickadee, 3. Total, 12 species, 120 individuals.—F. H. HALL.

Rochester, N. Y.—December 24; time, 10.45 A. M. to 12 M., 3 P. M. to 4 P. M. Cloudy; ground bare but frozen; wind northwest, brisk; snow flurries; temp., 30°. Herring Gull, 5; Crow, 3; Brown Creeper, 2; Robin, 1. Total, 4 species, 11 individuals.—NETTIE SELLINGER PIERCE.

Pointed Firs, Aurora, N. Y. (On my lunch-counter and window-sill.)—Time, from 7 A. M. to 4.30 P. M. Mostly cloudy; thin covering of snow; wind southerly, light; temp., 25°. Chickadee, 2; Downy Woodpecker, 3; Hairy Woodpecker, 2; White-breasted Nuthatch, 2. On March 28, 1905, I saw a beautiful Red-bellied Woodpecker on my lunch-counter eating suet. It was a female, the vivid scarlet not extending to the top of the head. I saw it twice afterwards; the last time May 10, and heard its rattling call.—MATHIDA JACOBS.

Gloversville, N. Y.—Time, 10 A. M. to 12 M. Crow, 2; Goldfinch, 14; Chickadee, 11. Total, 3 species, 27 individuals.—CHARLES P. ALEXANDER.

Irvington, N. Y.—December 27; time, 11.15 A. M. to 4 P. M., less about two hours at noon. Partly cloudy; ground bare; light wind; temp., 50° at starting, 48° at return. Herring Gull, 500 (seen on river); American Goldfinch, 30; Chickadee, 4; White-breasted Nuthatch, 1; American Crow, 8; Tree Sparrow, 20; Golden-crowned Kinglet, 4. Total, 7 species, about 567 individuals.—MORTIMER D. LEONARD and LOUIS DUNHAM.

Central Park, New York City.—Time, 8.42 A. M. to 10.15 A. M., north of Ninetieth street; 1.10 P. M. to 2.20 P. M., 'Ramble.' Weather fine; wind light, west; temp., average about 45°. Herring Gull, 2,000 (estimated); Downy Woodpecker, 1; Starling, 1; European Goldfinch, 1; White-throated Sparrow, 9; Song Sparrow, 2; Fox Sparrow, 2; Cardinal, 2. Total, 8 species, about 2,018 individuals.—GEORGE E. HIX.

Central Park, New York City.—Time, 4 hours, 40 minutes. Weather fine; light west wind; ground bare; 36° at start. Start 10.10 A. M. Herring Gull, 1,400; Downy Woodpecker, 12; Starling, 12; White-throated Sparrow, 18; Junco, 3; Song Sparrow, 1; Fox Sparrow, 3; Cardinal, 4; Brown Creeper, 2; Golden-crowned Kinglet, 1. Total, 10 species, about 45 individuals, plus the Gulls.—CHARLES H. ROGERS.

Central Park, New York City.—Time, 9.30 A. M. to 12.30 P. M. Clear sky; ground bare; little wind; temp., 37°. Herring Gull, 775; Downy Woodpecker, 3; Starling, 18; White-throated Sparrow, 25; Junco, 6; Song Sparrow, 4; Fox Sparrow, 3; Cardinal, 4; Brown Creeper, 2; Golden-crowned Kinglet, 2; Robin, 2. Total, 11 species, 844 individuals.—MAUNSELL S. CROSBY and CLINTON G. ABBOTT.

Brooklyn, N. Y., Prospect Park and Greenwood Cemetery.—Time, 11 A. M. to 1.45 P. M. Faint breeze; no snow on ground; temp., 40°. Junco, 1; Brown Creeper, 1; Chickadee, 2. Total, 3 species, 4 individuals.—H. R. JOHNSON, E. G. NICHOLS and L. N. NICHOLS.

Rockaway Beach (L. I.), New York City.—December 24; start, 10.05 A. M.; time, 6 hours. Weather fine; strong west wind; ground bare. Loon, 1; Kittiwake, 1; Black-backed Gull, 38; Herring Gull, several thousand; Red-breasted Merganser, 1; Old Squaw, 1; American Crow, 3; Snowflake, 100; Myrtle Warbler, 1. Total, 10 species, about 157 individuals and Herring Gulls.—GEORGE E. HIX and CHARLES H. ROGERS.

**Setauket, L. I.**—Time, all day. Clear, ground bare; wind west, light; temp.,  $36^{\circ}$  to  $26^{\circ}$ . Scoter sp., 6; American Merganser, 2; Red-breasted Merganser, 1; Old Squaw, 500; Herring Gull, 150; Bob-white, 7; Shore Lark, 6; Crow, 10; Meadowlark, 8; Goldfinch, 1; Junco, 17; Tree Sparrow, 6; Chickadee, 5; Robin, 1. Total, 14 species, 720 individuals.—SELAH B., RUSSELL W. and KATE W. STRONG.

**College Point, Long Island.**—December 24; time, 7.40 A. M. to 5.45 P. M. Clear in the morning, partly cloudy in the afternoon; ground bare; wind west, brisk; temp.,  $34^{\circ}$ . Herring Gull, 100; Marsh Hawk, 1; Sharp-shinned Hawk, 2; Red-tailed Hawk, 2; Downy Woodpecker, 1; Crow, 125; Starling, 115; Meadow-lark, 1; White-throated Sparrow, 4; Tree Sparrow, 85; Junco, 35; Song Sparrow, 10; Swamp Sparrow, 1; Robin, 2. Total, 14 species, 484 individuals.—FRANCIS HARPER.

**Orient Point, Long Island.**—December 24; time, 7 A. M. to 5 P. M. Partly cloudy, wind blowing hard from the northwest; ground bare; no frost in ground; temp.,  $30^{\circ}$  to  $40^{\circ}$ . Horned Grebe, 9; Loon, 16; Glaucous Gull, 1; Great Black-backed Gull, 8; Herring Gull, 357; Ring-billed Gull, 2; Cormorant, 1; Red-breasted Merganser, 8; Mallard, 7; Black Duck, 3; Red-legged Black Duck, 30; American Scaup Duck, 21; Lesser Scaup Duck, 1; American Golden-eye, 6; Bufflehead, 17; Old Squaw, 224; American Scoter, 4; White-winged Scoter, 23; Surf Scoter, 1; Wilson's Snipe, 1; Bob-white, 11; Sharp-shinned Hawk, 1; Broad-winged Hawk, 1; Bald Eagle, 1; American Sparrow Hawk, 2; Screech Owl, 2; Flicker, 4; Horned Lark, 243; American Crow, 150; Fish Crow, 1; Meadow-lark, 68; American Goldfinch, 5; Snowflake, 11; Lapland Longspur, 3; Tree Sparrow, 30; Field Sparrow, 1; Song Sparrow, 18; Northern Shrike, 3; Myrtle Warbler, 94; Brown Creeper, 1; Chickadee, 103; Golden crowned Kinglet, 8; American Robin, 1. Total, 43 species, 1,453 individuals. On December 16 a Killdeer was seen; on the 17th, Fox Sparrow, Holboell's Grebe and a Hermit Thrush were seen.—FRANK. HARRY and ROY LATHAM.

**Gardiner's Island, N. Y.**—Time, 8 A. M. to 5 P. M. Clear; wind west, light; ground bare; temp.,  $24^{\circ}$  to  $50^{\circ}$ . Horned Grebe, 9; Loon, 42; Red-throated Loon, 1; Ring-billed Gull, 24; Great Black-backed Gull, 1; Herring Gull, 260; American Merganser, 4; Red-breasted Merganser, 58; Mallard, 30; Black Duck, 200; Red-legged Black Duck, 400; Baldpate, 1; Green-winged Teal, 6; Wood Duck, 2; Redhead, 12; American Scaup Duck, 2,000; Lesser Scaup Duck, 50; American Golden-eye, 75; Bufflehead, 20; Old Squaw, 150; American Scoter, 4; White-winged Scoter, 62; Surf Scoter, 38; Bob-white, 39; Pheasant, 50; Marsh Hawk, 3; Red-tailed Hawk, 2; Red-shouldered Hawk, 1; American Rough-legged Hawk, 1; Screech Owl, 1; Downy Woodpecker, 10; Flicker, 32; American Goldfinch, 50; Myrtle Warbler, 90; Meadow-lark, 2; Horned Lark, 60; Tree Sparrow, 34; White-throated Sparrow, 1; Song Sparrow, 16; Fox Sparrow, 1; Brown Creeper, 1; Chickadee, 80; White-breasted Nuthatch, 22; Northern Shrike, 1; American Crow, 160; Fish Crow, 2. Total, 46 species, 4,084 individuals. There were about three thousand water fowl in the north shore inlet, composed of every species of ducks named above. The water, as well as the shore, was literally covered with them. One of the most wonderful and beautiful sights we ever saw.—HARRY and ROY LATHAM.

**Palisades Park, Moresmere and Nordhoff, N. J.**—December 27; start, 10.15 A. M.; time, 6 hours. Weather damp, partly cloudy; very light southwest winds; ground bare. Herring Gull, 150 on Hudson, 6 on Overpeck Creek; American Merganser, 4 on Overpeck Creek; Red-tailed Hawk, 5; American Rough-legged Hawk, 1; Hairy Woodpecker, 1; American Crow, 6; Starling, 130; Meadow-lark, 13; American Goldfinch, 1; White-throated Sparrow, 1; Tree Sparrow, 20; Junco, 1; Song Sparrow, 12; Chickadee, 8; Golden-crowned Kinglet, 1. Total, 15 species, about 360 individuals.—CHARLES H. ROGERS.

**Passaic, N. J.**—December 24; time, 9.15 A. M. to 12.30 P. M. Clear; ground bare; wind northwest, light; temp.,  $36^{\circ}$ . Brown Creeper, 2; Downy Woodpecker, 1; Tree

Sparrow, 12; Goldfinch, 1; Junco, 22; Chickadee, 1. Total, 6 species, 38 individuals.—GILBERT H. TRAFTON.

Morristown, N. J.—Time, 9 A. M. to 10.30 A. M. Weather clear; ground bare; wind light, west; temp., 35°. Downy Woodpecker, 1; Blue Jay, 3; Crow, 10; Goldfinch, 2; Tree Sparrow, 9; Junco, 40; Brown Creeper, 12; White-breasted Nuthatch, 3; Chickadee, 18; Golden-crowned Kinglet, 6. Total, 10 species, 104 individuals.—R. C. CASKEY.

Princeton, N. J.—Time, 9.15 A. M. to 12.45 P. M. and 3.30 P. M. to 4.45 P. M. Clear; ground bare; wind northwest, light; temp., 24°. Sparrow Hawk, 1; Downy Woodpecker, 14; Blue Jay, 10; American Crow, 50; American Goldfinch, 18; White-throated Sparrow, 3; Tree Sparrow, 210; Junco, 60; Song Sparrow, 75; Cardinal, 18; Northern Shrike, 1; Winter Wren, 1; Brown Creeper, 3; White-breasted Nuthatch, 1; Tufted Titmouse, 8; Chickadee, 8; Golden-crowned Kinglet, 8; Hermit Thrush, 1; Bluebird, 2. Total, 19 species, 492 individuals.—WILLIAM M. NORRIS, JR.

Moorestown, N. J.—Time, 6.55 A. M. to 7 A. M., and 7.45 A. M. to 5.40 P. M. Clear; wind imperceptible; ground bare; heavy frost; temp. (at start), 20°. The bicycle helped in this "walk."—Herring Gull, 6; Red-tailed Hawk, 4; Sparrow Hawk, 4; Hairy Woodpecker, 1; Downy Woodpecker, 6; Flicker, 3; Blue Jay, 4; Crow, say 500; Goldfinch, 14; White-throated Sparrow, 8; Tree Sparrow, 62; Junco, 117; Song Sparrow, 15; Cardinal, 6; Northern Shrike, 1; Carolina Wren, 2; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 1; Black-capped Chickadee, 7; Golden-crowned Kinglet, 1. Total, 22 species, about 770 individuals.—WILLIAM B. EVANS.

Moorestown, N. J.—Time, 7 A. M. to 2 P. M. Clear; ground bare; wind west, light; temp., 34°. Marsh Hawk, 1; Red-tailed Hawk, 2; Sparrow-hawk, 1; Downy Woodpecker, 1; Flicker, 2; Horned Lark, 65; Crow, 2,000; Meadow-lark, 1; Goldfinch, 8; White-throated Sparrow, 2; Tree Sparrow, 50; Junco, 60; Song Sparrow, 3; Cardinal, 3; Carolina Wren, 3; Tufted Titmouse, 2; Chickadee, 12. Total, 17 species, 2,215 individuals.—ELMER ONDERDONK.

Newfield, N. J.—Time, 10.30 A. M. to 3.30 P. M. Clear; ground bare; wind -southwest, light; temp., 36°. Mourning Dove, 3; Downy Woodpecker, 1; Crow, 9; Tree Sparrow, 21; Song Sparrow, 5; Junco, about 75. Total, 6 species, 114 individuals.—WM. W. FAIR.

Fairmount Park, Philadelphia, Pa.—Time, 9.45 A. M. to 3.45 P. M. Clear; ground bare; wind southwest, light; temp., 34°. American Herring Gull, 11; Wild Ducks (mostly American Merganser), 200; Red-shouldered Hawk (?), 1; Cooper's Hawk, 1; Sharp-shinned Hawk, 1; Sparrow Hawk, 1; Flicker, 1 (calls); Downy Woodpecker, 7; Crow, 31; Goldfinch, 1; White-throated Sparrow, 14; Tree Sparrow, 10; Junco, 25; Song Sparrow (sings), 16; Cardinal (sings), 16; Carolina Wren, 3; White-breasted Nuthatch, 2; Tufted Titmouse (sings), 6; Brown Creeper, 2; Robin, 3. Total, 20 species, 352 individuals.—B. W. GRIFFITHS and CHRESWELL J. HUNT.

Fairmount Park, Pa.—Time, 8 A. M. to 10 A. M. Clear; ground bare; wind southwest, light; temp., 41°. Herring Gull, 2; Downy Woodpecker, 1; Crow, 30; White-throated Sparrow, 5; Tree Sparrow, 2; Slate-colored Junco, 34; Song Sparrow, 3; Cardinal, 4; Brown Creeper, 1. Total, 9 species, 30 individuals.—ARTHUR F. HAGAR.

Bridesburg Meadows, Philadelphia, Pa.—December 27; time, 1.30 P. M. to 4.30 P. M. Overcast; ground bare; wind southwest, light; temp., 45°. Herring Gull, 8; Marsh Hawk, 3; Crow heard; Tree Sparrow, 2; Field Sparrow, 1; Song Sparrow, 2. Total, 6 species, 17 individuals.

Radnor Township, Delaware County, Pa.—Time, 8.15 A. M. to 3.55 P. M. Clear until 2 P. M., then cloudy; ground bare; wind west by northwest, light; temp., 22° at start, 35° on return. Red-tailed Hawk, 4; Downy Woodpecker, 7; Blue Jay, 3; Crow,

50; Tree Sparrow, 25; Junco, 65; Song Sparrow, 8; Cardinal, 1; Mockingbird, 1; Winter Wren, 2; White-breasted Nuthatch, 1; Tufted Titmouse, 4; Bluebird, 6. Total, 13 species, 177 individuals.—ALFRED C. REDFIELD.

Lititz, Pa.—(Course of the Hammer Creek, northern Lancaster county.) December 24; time, 12 M. to 5 P. M. Clear; ground bare; northwest wind, strong; temp., 28°. Red-tailed Hawk, 1; Sparrow Hawk, 2; Turkey Vulture, 15 (apparently a winter camp, in a secluded valley); Crow, 275; Ruffed Grouse, 2; Cardinal Grosbeak, 2; Horned Lark, 5; Winter Wren, 1; Black-capped Chickadee, 8; Tufted Titmouse, 3; White-bellied Nuthatch, 6; Downy Woodpecker, 2; Hairy Woodpecker (probably), 1; Tree Sparrow, 35; Song Sparrow, 1; Junco, 23. Total, 16 species, 376 individuals.—HERBERT H. BECK.

Pinehurst, N. C.—Time, 6.30 A. M. to 12.30 P. M. Clear; very light west breeze; ground bare; temp., 35°. Bob-white, 9; Turkey Buzzard, 9; Sparrow Hawk, 3; Flicker, 3; Horned Lark, 7; Blue Jay, 15; Meadow-lark, 80; Rusty Blackbird, 1; Goldfinch, 25; Vesper Sparrow, 10; Song Sparrow, 12; Junco, 100; Field Sparrow, 25; White-throated Sparrow, 2; Towhee, 2; Cardinal, 3; Loggerhead Shrike, 2; Myrtle Warbler, 15; Mockingbird, 5; Carolina Wren, 1; Carolina Chickadee, 3; Bluebird, 10. Total, 22 species, 342 individuals.—CORNELIA E. BAILEY.

Durham, N. C.—December 24; time, 9.30 A. M. to 10.15 A. M. Weather cloudy; temp., 40°. Turkey Vulture, 20; Downy Woodpecker, 1; Phoebe, 1; American Crow, 1; American Goldfinch, 5; Junco, 2; Carolina Wren, 3; Brown Creeper, 3; Tufted Titmouse, 2; Carolina Chickadee, 5; Golden-crowned Kinglet, 5. Total, 11 species, 48 individuals.—ERNERT SEEMAN.

College Park, Ga.—Time, 10 A. M. to 1 P. M. Clear; light wind; temp., 50°. Bob-white, 12; Turkey Vulture, 10; Sparrow Hawk, 1; Southern Downy Woodpecker, 2; Blue Jay, 4; Crow, 8; Meadow-lark, 13; Goldfinch, 25; English Sparrow, 10; Vesper Sparrow, 8; White-throated Sparrow, 2; Field Sparrow, 18; Junco, 30; Song Sparrow, 20; Swamp Sparrow, 3; Towhee, 1; Cardinal, 4; Loggerhead Shrike, 2; Palm Warbler, 6; Pipit, 2; Carolina Wren, 8; Bewick's Wren, 3; Tufted Titmouse, 5; Carolina Chickadee, 4; Bluebird, 3. Total, 25 species, 206 individuals.—W. H. LAPRADE.

New Orleans, La.—Time, 10.30 A. M. to 4.30 P. M. Sky mostly clear, hazy at times; wind east, moderate; temp., min. 41°, max. 56°. Killdeer, 75; Turkey Buzzard, 15; Black Vulture, 50; Red-shouldered Hawk, 3; Sparrow-hawk, 2; Downy Woodpecker, 4; Yellow-bellied Woodpecker, 2; Red-bellied Woodpecker, 4; Flicker, 8; Phoebe, 2; American Crow, 100; Fish Crow, 300; Blue Jay, 6; Red-winged Blackbird, 75; Meadow-lark, 1; Boat-tailed Grackle, 100; Florida Grackle, 500; Tree Swallow, 30; Loggerhead Shrike, 1; White-eyed Vireo, 1; Goldfinch, 15; Savanna Sparrow, 6; Swamp Sparrow, 150; White-throated Sparrow, 8; Cardinal, 12; Orange-crowned Warbler, 1; Myrtle Warbler, 50; Maryland Yellow-throat, 10; American Pipit, 75; Tufted Titmouse, 4; Carolina Chickadee, 10; Mockingbird, 3; Thrasher, 1; Carolina Wren, 20; Hermit Thrush, 6; Golden-crowned Kinglet, 4; Ruby-crowned Kinglet, 40; Robin, 50; Bluebird, 35. Country visited, swamp, woodland, pastures, nurseries and truck farms. Total, 39 species, 1,779 individuals.—H. H. KOPMAN and MRS. PERCIVAL WRAIGHT.

Lake Catherine, La.—Time, 5 A. M. to 2 P. M. Sky clear; wind northeast; temp., 45°. American Eared Grebe, 100; Loon, 1; Ring-billed Gull, 4; Forster's Tern, 10; Florida Cormorant, 10; Red-breasted Merganser, 25; Hooded Merganser, 10; Mallard, 500; Blue-winged Teal, 20; Shoveller, 5; Pintail, 200; Canvasback, 3; Lesser Scaup Duck, 1,000; Golden-eye, 1; Bufflehead, 2; Greater Snow Goose, 3; American Bittern, 2; Great Blue Heron, 1; King Rail, 1; Clapper Rail (Louisiana), 20; Virginia Rail, 1; American Coot, 3; Wilson's Snipe, 2; Least Sandpiper, 25; Killdeer, 200; Turkey Buzzard, 8; Black Vulture, 40; Red-shouldered Hawk, 3; Marsh Hawk, 6; Belted King-

fisher, 20; American Crow, 12; Fish Crow, 25; Blue Jay, 2; Red-winged Blackbird, 500; Florida Grackle, 20; Boat-tailed Grackle, 1,000; Goldfinch, 1; White-throated Sparrow, 1; Louisiana Seaside Sparrow, 50; Swamp Sparrow, 20; Cardinal, 10; Tree Swallow, 200; Myrtle Warbler, 100; Maryland Yellow-throat, 20; Carolina Wren, 1; Short-billed Marsh Wren, 20; Long-billed Marsh Wren, 3; Golden-crowned Kinglet, 40; Ruby-crowned Kinglet; 2. Total, 49 species. 4,324 individuals. Country visited: Coast marsh, and marsh thickets of live-oak, wax myrtle, etc.—GEO. E. BEYER.

Lawrence, Kansas.—December 23; time, 8 A. M. to 4 P. M. Two inches of snow on the ground; clear, with moderate northwest wind; temp., 25° to 40°. Marsh Hawk, 3; Sharp-shinned Hawk, 2; Red-tailed Hawk, 3; Krider's Hawk, 1; Harlan's Hawk, 1; American Rough-legged Hawk, 2; Barred Owl, 1; Screech Owl, 1; Hairy Woodpecker, 6; Downy Woodpecker, 15; Red-bellied Woodpecker, 4; Flicker, 4; Red-shafted Flicker, 1; Prairie Horned Lark, 25; Blue Jay, 8; American Crow, 500; Meadow-lark, 6; Purple Finch, 3; American Goldfinch, 24; Lapland Longspur, 2; Harris' Sparrow, 10; Tree Sparrow, 300; Slate-colored Junco, 100; Song Sparrow, 1; Cardinal, 30; White-rumped Shrike, 1; Carolina Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 5; Tufted Titmouse, 12; Chickadee, 15; American Robin, 3; Bluebird, 6. Total, 33 species, 1,018 individuals.—ALEX. WETMORE.

Knoxville, Tenn.—Time, 10.30 A. M. to 12.30 P. M. Clear, very bright; ground bare, frozen; wind west, keen, cutting, temp., 35°. Turkey Vulture, 1; Crow, 3; Tufted Titmouse, 6; Robin, 1; Bluebird, 4. Total, 5 species, 15 individuals.—MAGNOLIA WOODWARD.

Lexington, Ky.—Time, 7.30 A. M. to 11 A. M.; 12 M. to 5 P. M. Ground bare; forenoon partly cloudy, afternoon clear; wind fresh, A. M., southwest; P. M., west; temp., at starting, 23°; at return 37°. Distance, about 9 miles, in radius of about 2 miles. Pied-billed Grebe, 1; Mallard, 5; Bufflehead, 11; Marsh Hawk, 1; Red-tailed Hawk, 5; American Sparrow Hawk, 1; Short eared Owl, 1, recently captured; Hairy Woodpecker, 4; Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Flicker, 4; Horned Lark, about 235; American Crow, about 1,000; Meadow-lark, about 76; Bronzed Grackle, about 400; on December 24, not in immediate locality: White-crowned Sparrow, 3; \*Field Sparrow, 1; Slate-colored Junco, 3; Song Sparrow, 45; Cardinal, 13, in pairs except one flock of 5; Mockingbird, 2; Carolina Wren, 5; \*Bewick's Wren, 1; Brown Creeper, 1; Carolina Chickadee, 13; Golden-crowned Kinglet, 7; American Robin, 4; Bluebird, 2, heard. Total, 29 species, about 1,836 individuals.—R. H. DEAN and V. K. DODGE.

Campbellsville, Ky.—Time, 10.30 A. M. to 11.45 A. M. Clear; ground bare; wind south, light; temp. 39°. Turkey Vulture, 1; Downy Woodpecker, 2; Flicker, 8; Red-bellied Woodpecker, 5; Pileated Woodpecker, 6; Yellow-bellied Sapsucker, 1; Blue Jay, 1; Meadow-lark, 40 or more; Goldfinch, 10; Junco, 7; Cardinal, 2; White-breasted Nuthatch, 2; Tufted Tit, 6; Carolina Chickadee, 1; Mocking-bird, 1; Bluebird, 6. Total, 16 species, 103 individuals.—W. M. JACKSON.

Youngstown, Ohio.—Time, 6.30 A. M. to 4.30 P. M. Cloudy; a little snow falling all day; wind southwest; temp., 20° to 26°. Distance walked (as registered by pedometer) 21 miles. Ruffed Grouse, 1; Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Hairy Woodpecker, 7; Downy Woodpecker, 18; Pileated Woodpecker, 1; Red-bellied Woodpecker, 4; Flicker, 1; Blue Jay, 11; Crow, 3; Meadow-lark, 1; Goldfinch, 5; Tree Sparrow, about 150; Junco, 1; Song Sparrow, 4; Cardinal, 7; White-breasted Nuthatch, 8; Tufted Titmouse, 12; Chickadee, 8. Total, 19 species, about 215 individuals.—GEORGE L. FORDYCE and REV. S. F. WOOD.

Cadiz, Ohio.—Time, 9 A. M. to 3.30 P. M. Cloudy; snowing, with less than one-half inch on the ground; wind southwest, moderate; temp., minimum, 11° at starting; maxi-

\* Reported by Mrs. Bettie Hawkins



mum, 26° on return; distance walked (as registered by pedometer), 14 miles. Ruffed Grouse, 1; Red-tailed Hawk, 2; Barred Owl (heard); Hairy Woodpecker, 4; Downy Woodpecker, 13; Red-bellied Woodpecker, 6; Flicker, 1; Crow, 1; Goldfinch, 3; Tree Sparrow, 75; Junco, 40; Song Sparrow, 7; Cardinal, 20; Carolina Wren, 3 (sang in response to my whistled imitation of his song); White-breasted Nuthatch, 12; Tufted Titmouse, 25; Chickadee, 9; Robin, 1; Bluebird, 9. Total, 19 species, 233 individuals. On December 14 I saw a Snowy Owl and a Great Horned Owl in the same cage, the former having been winged November 26 by a farmer.—HARRY B. MCCONNELL.

Mt. Carmel, Ill.—December 27; time, 8 to 11 A. M., 3 to 5 P. M. Clear; ground bare; wind west, light; temp., 30° to 50°. Bob-white, 18; Mourning Dove, 21; Red-tailed Hawk, 2; Sparrow Hawk, 3; Barred Owl, 1; Hairy Woodpecker, 5; Downy Woodpecker, 15; Red-headed Woodpecker, 11; Red-bellied Woodpecker, 8; Flicker, about 20; Blue Jay, about 50; American Crow, 10; Meadow-lark, 3; American Goldfinch, 3; White-crowned Sparrow, 3; Tree Sparrow, about 150; Slate-colored Junco, about 200; Song Sparrow, 15; Cardinal, about 30; Carolina Wren, 12; Bewick's Wren, 2; Brown Creeper, 3; White-breasted Nuthatch, 8; Tufted Titmouse, about 50; Chickadee, about 35; Bluebird, 7. Total, 26 species, about 685 individuals.—CHARLES F. BRENNAN.

Earlville, Ill.—Time, 8.30 A. M. to 12.30 P. M. Partially cloudy; one inch of snow; wind south, light; temp., 30°. Red-tailed Hawk, 3; Cooper Hawk, 2; Marsh Hawk, 1; Screech Owl, 1; Crow, 90; Quail, 6; Tree Sparrow, 75; Slate-colored Junco, 25; Prairie Horned Lark, 3; Flicker, 5; Snow Bunting, 30; Chickadee, 18; White-breasted Nuthatch, 4; Hairy Woodpecker, 2; Downy Woodpecker, 7; Red-bellied Woodpecker, 1. Total, 16 species, 273 individuals.—FRANK DUNNAVAN and RETT E. OLMSTEAD.

Rock Island, Ill.—Time, 10 A. M. to 12.10 P. M. Clear; about one inch of snow on ground; wind southwest, light; temp., 24° at 10 A. M., growing warmer toward noon. American Golden-eye, 2; Quail, 75; Hairy Woodpecker, 2; Downy Woodpecker, 3; Blue Jay, 8; Crow, 5; Tree Sparrow, 4; Chewink, 1 female; Cardinal, 4; White-bellied Nuthatch, 2; Chickadee, 12. Total, 11 species, 118 individuals.—BURTIS H. WILSON.

Urbana, Ill.—Time, 8.15 A. M. to 11.30 A. M. Clear; ground bare; wind west by northwest, light; temp., 27°; ice seven inches. Pigeon Hawk, 1; Downy Woodpecker, 4; Blue Jay, 11; Crow, 30; Tree Sparrow, 37; Junco, 18; Song Sparrow, 10; Cardinal, 1; White-breasted Nuthatch, 3. Total, 9 species, 115 individuals. Four Snowy Owls have been brought to us since November 1, of which three were killed in this county (Champaign).—FRANK SMITH and ALFRED O. GROSS.

Durand, Ill.—Time, 1.15 P. M. to 3 P. M. Fair; one and one-half inch snow; wind north, light; temp., 29°. Ruffed Grouse, 1; Red-tailed Hawk, (?) 1; Screech Owl, 2; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 5; American Crow, about 250; Junco, 6; White-breasted Nuthatch, 1; Chickadee, 9. Total, 10 species, 278 individuals.—GEO. C. HAINES.

Peoria, Ill.—Time, 11 A. M. to 3 P. M. Clear; one-half inch snow; wind west, light; temp., 31°. Ring-billed Gull, two flocks estimated, 130; Mallard, 5; Quail, 8; Hairy Woodpecker, 5; Downy Woodpecker, 8; Red-bellied Woodpecker, 1; Blue Jay, 7; Crow, 3; American Goldfinch, 3; Tree Sparrow, 21; Junco, seven flocks estimated, 175; Cardinal, 6; Tufted Titmouse, 2; Chickadee, 27. Total, 14 species, 401 individuals.—W. H. PACKARD and C. S. VANDEUSEN.

Chicago, Lincoln Park and Graceland Cemetery.—December 20; time, 9 A. M. to 12 M. Overcast, ground bare; wind southeast, brisk; temp., 32° to 37°. Herring Gull, 10; Blue Jay, 8; Crow 1; Bronzed Grackle (wing injured), 1; Junco, 3. Total, 5 species, 23 individuals.—JULIET T. GOODRICH.

Chicago, Ill.—Time, 6.30 A. M. to 1 P. M. Cloudy, becoming clear; ground with 0.3 inches snow, becoming bare; wind light, northwest; temp., 26° to 34°; distance 17 miles. Loon, 1; Herring Gull, 7; Black Tern, 1; Red-breasted Merganser, 3; American Golden-eye, 900; Bufflehead, 6; American Scoter, 3; Northern Downy Woodpecker, 2; Red-headed Woodpecker, 1; Blue Jay, 30; Crow, 8; Bronzed Grackle, 1; Tree Sparrow, 70; Junco, 14; Migrant Shrike, 1. Total, 15 species, 1,038 individuals.—FRANK GATES and DR. H. S. PEPOON.

Chicago, Ill., Jackson Park.—Time, 10.30 A. M. to 3.30 P. M. Wind southwest; light snow covering frozen ground; lagoons frozen; temp., 33°. Herring Gull, 37; Ring-billed Gull, 11; Scaup Ducks, 6; Blue Jay, 2; Tree Sparrow, 1; Northern Shrike, 1; Mockingbird, 1. Total, 8 species, 59 individuals.—CARL C. LAWSON.

Milwaukee, Wis.—December 24; time, 9.30 A. M. to 1.30 P. M. Clear, sunshine; ground lightly covered with snow; wind a little north of west, light; temp., 8°. Herring Gull, 61; American Golden-eye and Old Squaw, 160 (well out in Lake Michigan and hard to determine); Downy Woodpecker, 1; Crow, 2; White-breasted Nuthatch, 2. Total, 6 species, 226 individuals.—I. N. MITCHELL and W. H. CHEEVER.

Winnipeg, Wis.—December 24; time, 9 A. M. to 4 P. M. Cloudy; two inches of snow on ground; light southwest wind; temp., 7 A. M., 2°. Herring Gull, 1; Hairy Woodpecker, 1; Downy Woodpecker, 5; Blue Jay, 10; American Crow, 2; Tree Sparrow, 25; Brown Creeper, 2; White-breasted Nuthatch, 8; Chickadee, 20. Total, 9 species, 74 individuals. Our lunch-counter on a tree near the house is visited daily by 1 Hairy and 4 Downy Woodpeckers, 3 Nuthatches, 2 Brown Creepers and several Chickadees. Brown Creepers come as regularly as the others.—HENRY P. SEVERSON.

Minneapolis, Minn.—Bright, warm, melting snow. Downy Woodpecker, 4; Blue Jay, many; Goldfinch, 2; Northern Shrike, 1; White-breasted Nuthatch, 7; Chickadee, a number; Brown Creeper, 1; Robin, 1. Total, 8 species.—KENWOOD BIRD CLUB, EDWIN C. BROWN, Secretary.

Red Wing, Minn.—Time, 9 A. M. to 1.30 P. M. Clear; about four inches of snow; wind southeast, light; temp., 11° to 36°. Hairy Woodpecker, 1; Blue Jay, 19; American Goldfinch, 2; Northern Shrike, 2; Brown Creeper, 4; White-breasted Nuthatch, 5; Chickadee, 30 (estimated). Total, 7 species, 63 individuals.—CHARLES PHILLIPS and NELS. BORGES.

Sioux Falls, South Dakota.—December 24; time, 1 P. M. to 5.30 P. M. Clear; ground bare, except in hollows; wind west, medium; temp., about 35°. Prairie Chicken, 6; Tree Sparrow, about 75; Chickadee, 9. Total, 3 species, about 90 individuals.—ADRIAN TARSON.

Palo Alto (Central), Cal.—Time, 9.30 A. M. to 12 M. Cloudy to pale sunshine; cold and unfavorable for birds; wind northwest; temp., 32° to about 50°. Western Red-tail, 1; Sparrow Hawk, 1; Californian Woodpecker, about 25; Red-shafted Flicker, 15; Anna's Hummingbird, 12; California Jay, about 75; Brewer's Blackbird, 40; Western Meadow-lark, about 10; California Purple Finch, 17; House Finch, 5; Arkansas Goldfinch, 20; Gambel's Sparrow, about 175; Golden-crowned Sparrow, about 15; Yakutat Fox Sparrow, 2; Spurred Towhee, 20; Californian Towhee, 30; California Shrike, 1; Audubon's Warbler, 35; American Pipit, 2; Vigors' Wren, 3; Plain Titmouse, very many, perhaps 75; Wren-tit, 2; Bush-tit, 50; Ruby-crowned Kinglet, 10 (song!); Alaskan Hermit Thrush, 3; Western Robin, about 225; Western Bluebird, 6. Total, 27 species, about 875 individuals.—A. K. and W. K. FISHER.

Everett, Wash.—Time, 9 A. M. to 11 A. M. Raining; brisk southwest wind; temp., 45°. Red-shafted Flicker, 1; Steller's Jay, 3; Brewer's Blackbird, 150; Crow, 3; Sooty Song Sparrow, 3; Rusty Song Sparrow, 2; Oregon Junco, 90; Oregon Towhee, 2; Chestnut-backed Chickadee, 1; Western Chickadee, 2; Western Golden-crested Kinglet, 10; Western Winter Wren, 5; Vigor's Wren, 2. Total, 13 species, 274 individuals.—MRS. MAY R. THAYER.

Okanagan Landing, B. C.—December 29. Fine; no wind; temp., 22°. Holboell's Grebe, 1; Horned Grebe, 2; American Merganser, 2; Scaup (greater), 20; Canvas-back, 1; American Golden-eye, 8; Bufflehead, 5; American Wigeon, 15; Herring Gull, 7; Ring-billed Gull, 2; Richardson's Grouse, 3; Ruffed Grouse, 2; Red-shafted Flicker, 1; Northern Hairy Woodpecker, 5; Batchelder's Woodpecker, 1; Pileated Woodpecker, 1; Clarke's Nutcracker, 1; Magpie, 9; Gambel's Chickadee, 7; Long-tailed Chickadee, 5; Western Golden-crowned Kinglet, 3; Rocky Mountain Brown Creeper, 1; Western Meadow-lark, 4; Rusty Song Sparrow, 2; Slender-billed Nuthatch, 20; Red-bellied Nuthatch, 25; Pigmy Nuthatch, 7. Total, 27 species, 160 individuals. This is the poorest winter for birds I have ever seen in this district. All of the above are residents; winter visitants are almost absent this year.—ALLAN BROOKS

The following censuses were received too late for insertion in their proper places.

Arnold Hill (in the Adirondacks). Time, 10.45 A. M. to 12.25 P. M. Snow a foot deep; very strong south wind; temp., 19° above zero. Chickadee, 14. Total, 1 species, 14 individuals.—PHILIP FLAYLER LEFEVRE and LOUIS DUBOIS LEFEVRE.

Cambridge and Waverly, Mass.—Time, 10 A. M. to 4.30 P. M. Clear; temp., 32°. Great Black-backed Gull, 4; American Herring Gull, 180; American Merganser, 2; Black Duck, 92; Screech Owl 1; Flicker, 8; Blue Jay, 8; Crow, 31; Goldfinch, 1; Brown Creeper, 5; Chickadee, 8; Golden-crowned Kinglet, 4; Robin, 1. Total, 13 species, 345 individuals.—HELEN C. SCORGIE and ELVERA L. SCORGIE.

Lansdowne, Pa.—Time, 7 A. M. to 8 A. M. Clear; ground bare. Downy Woodpecker, 1; Yellow-bellied Sapsucker, 1; Crow, 30; Goldfinch, 20; White-throated Sparrow, 20; Junco, 20; Song Sparrow, 15; Cardinal (female), 1; Carolina Wren, 1; White-breasted Nuthatch, 2; Tufted Titmouse, 4; Golden-crowned Kinglet, 6. Total, 12 species, 121 individuals.—J. M. AUSTIN.

West Chester, Pa.—Time, 8 A. M. to 12 M. Clear; ground bare; little or no wind; temp., 20° at 8 A. M., 42° at 12 M. Red-tailed Hawk, 3; Downy Woodpecker, 6; Crows, 126; Song Sparrow, 3; Tree Sparrow, 24; Flicker, 1; Junco, 200; Cardinal, 1; Winter Wren, 1; White-breasted Nuthatch, 5; Brown Creeper, 2. Total, 11 species, 372 individuals.—THOMAS JACKSON, ROBERT SHARPLESS and C. E. EHINGER.

Berwyn, Pa.—Time, 9.15 A. M. to 12.30 P. M.; 2 P. M. to 4 P. M. Clear; ground bare; wind northwest, moderate; temp., 45° to 40°. Sparrow Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 3; Crow, 190; Blue Jay, 4; Goldfinch, 1; Junco, 50; Song Sparrow, 20; Tree Sparrow, 30; White-throated Sparrow, 1; Cardinal, 1; Carolina Wren, 1; White-breasted Nuthatch, 2. Total, 13 species, 306 individuals.—JOHN B. GILL.

Richmond, Ind.—Kingfisher, 1; Flicker, 1; Red-headed Woodpecker, 2; Downy Woodpecker, 2; Blue Jay, 10; Crow, 12; Junco, 20+; Cardinal, 14; Tree Sparrow, 20+; Song Sparrow, 8; Carolina Wren, 2; Brown Creeper, 2; Black-capped Chickadee, 20+; Tufted Titmouse, 20+; Golden-crowned Kinglet, 2. Total, 15 species.—M. BAXTER, MISS CARPENTER, MR. and MRS. P. B. COFFIN.

Abilene to Clay Center, Kans.—December 21; time 9.40 A. M. to 5.30 P. M. Clear; ground partly covered with a fine snow; wind, north of west; temp., about 40°. Swainson's Hawk, 1; American Rough-legged Hawk, 13; Crow, 1,117; Prairie Horned Lark, 50; Harris' Sparrow, 26; Tree Sparrow, 120; Junco, 3; Song Sparrow, 1; Cardinal, 3; Chickadee, 4. Total, 10 species, 1,338 individuals.—EDWARD W. GRAVES.

Clay Center, Kans.—December 26; time, 7.35 to 8.30 A. M., and 9.40 A. M. to 1 P. M. Clear; ground bare. Bob-white, 12; Red-tailed Hawk, 1; American Rough-legged Hawk, 2; Crow, 35; Downy Woodpecker, 1; Flicker, 1; Prairie Horned Lark, 31; Western Meadow-lark, 8; Harris' Sparrow, 52; Tree Sparrow, 81; Song Sparrow, 2; Cardinal, 14; Chickadee, 2. Total, 13 species, 243 individuals.—E. W. GRAVES.

# For Teachers and Students

## The Migration of Warblers

FOURTEENTH PAPER

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

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

### BACHMAN'S WARBLER

#### SPRING MIGRATION

One of the early migrants, it crosses to the United States in March: Sombrero Key, Fla., March 3, 1889; Suwanee River, Fla., March 12, 1890; Branford, Fla., March 14, 1892; Old Town, Fla., March 10, 1893; Wacissa River, Fla., March 13, 1894; Leon County, Fla., March 22, 1904; Bay St. Louis, Miss., March 26, 1902; Lake Pontchartrain, La., Feb. 27 to March 14, 1891.

#### FALL MIGRATION

The southward migration begins so early that in July many individuals reach their winter quarters. Earliest at Key West, Fla., July 17, 1889; latest, September 5, 1888.

### SWAINSON'S WARBLER

#### SPRING MIGRATION

The earliest recorded spring arrival in the United States was on March 22, 1890, on the Lower Suwanee River. The same year the species was taken at the Tortugas, March 25 to April 5. The other records of first arrival in spring are: Sombrero Key lighthouse, April 3, 1889; Savannah, Ga., April 8-16, 1894; Kirkwood, Ga., May 4, 1898; Frogmore, S. C., April 1-5, 1885; New Orleans, La., April 8, 1898, April 1, 1904, March 30, 1905; Bayou Sara, La., April 8, 1887; Coosada, Ala., April 12, 1878.

#### FALL MIGRATION

This begins rather late when compared with the date of nesting. Fledged young have been seen near Charleston, S. C., by June 9, but the earliest date of striking at Sombrero Key lighthouse is August 17, 1888; other dates at this lighthouse extend from September 14, 1884, to October 26, 1885, and at Key West, Fla., from the middle of September to September 20.

WORM-EATING WARBLERS

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Northern Florida . . . . .	5	April 9	April 4, 1892
Raleigh, N. C. . . . .	10	April 24	April 19, 1887
Asheville N. C. (near) . . . . .	4	April 21	April 19, 1893
White Sulphur Springs, W. Va. . . . .	3	April 28	April 27, 1890
French Creek, W. Va. . . . .	3	April 28	April 25, 1898
Washington, D. C. . . . .	6	May 2	April 29, 1888
Beaver, Pa. . . . .	3	May 4	April 29, 1902
Southeastern New York . . . . .	7	May 7	May 3, 1886
South Central Connecticut . . . . .	3	May 11	May 10, 1894
<i>Mississippi Valley—</i>			
Houston, Tex. . . . .			April 6, 1881
New Orleans, La. . . . .	5	April 9	April 6, 1902
St. Louis, Mo. . . . .	5	April 29	April 26, 1882
Brookville, Ind. . . . .	7	April 23	April 17, 1896
Columbus, O. . . . .			April 18, 1900

*Fall migration.*—The earliest fall migrant was recorded at Key West, Fla., August 30; the average date at which they first strike the Florida light-houses is September 14. Migration at the mouth of the Mississippi is at about the same time, earliest August 11. The latest migrants are noted at Raleigh, N. C., September 2; near New Orleans, La., September 30; Key West, Fla., about October 1.



A SCREECH OWL THAT SOMETIMES LIVES OVER THE EDITOR'S STUDY

## 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 five 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.  
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 NEW YORK, Northern.—Egbert Bagg, 191 Genesee Street, Utica, N. Y. [ton, D. C.  
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 OREGON.—A. W. Anthony, 761 ½ Savier St., Portland, Ore.  
 PENNSYLVANIA, Eastern.—Witmer Stone, Acad. Nat. Science, Philadelphia, Pa.  
 PENNSYLVANIA, Western.—W. Clyde Todd, Carnegie Museum, Pittsburg, Pa.  
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 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. I. Ward, Public Museum, Milwaukee, Wis.  
 WYOMING.—P. B. Peabody, Newcastle, Wyo.

## CANADA

- BRITISH COLUMBIA.—Francis Kermodé, 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, 160 Boylston street, Boston, Mass.

## GREAT BRITAIN

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

## Book News and Reviews

THE GROUSE AND WILD TURKEYS OF THE UNITED STATES, AND THEIR ECONOMIC VALUE. By SYLVESTER D. JUDD. Bulletin No 24, Biological Survey, U. S. Dept. of Agriculture. Washington 1905. 8vo. 55 pages, 2 plates.

This admirable paper treats briefly of the general habits and value as game of our larger gallinaceous birds, and at length of their economic status as revealed by a study of their food. Suggestions are also presented in regard to artificial propagation as a means of increasing the numbers of several species whose existence has been threatened by the combined attacks of the sportsman and market hunter.

The whole paper is a model of well-conceived and well-directed research, and the widespread interest in the birds with which it deals makes it one of the most important contributions to economic ornithology issued by the Biological Survey. At the same time it increases our regret for the death of its talented young author.—F. M. C.

THE HORNED LARKS AND THEIR RELATIONS TO AGRICULTURE. By W. L. MCATEE. Bulletin No. 23, Biological Survey, U. S. Dept. of Agriculture. Washington, 1905. 8vo. 33 pages, two plates, numerous text cuts.

The complicated nature of economic ornithological problems are well illustrated by this paper.

It appears that in those portions of its range where wheat is grown in large quantities the Horned Lark may at certain seasons devour a large amount of grain. Undeniably the bird is then injurious, but its accounts with man should not be balanced on the basis of a single entry. Here, then, appears the economic ornithologist, who posts the debits and credits not of a single month or locality, but of a time and area sufficient to warrant generalizations. As a whole, 79.4 per cent food of the Horned Larks of the United States and Southern Canada consists of weed seed; and Mr. McAtee concludes that the services they render to agriculture are so in

excess of the injury they occasion that they deserve "protection at the hands of man."—F. M. C.

BIRD GUIDE. Part II. LAND BIRDS EAST OF THE ROCKIES, FROM PARROTS TO BLUEBIRDS. By CHESTER A. REED. Oblong 32mo. 262 pages, numerous illustrations in color. C. K. Reed.

In this attractive little volume Mr. Reed has succeeded in storing a large amount of information, together with colored figures which should prove of great assistance in identifying birds in life. Under each species is given a brief statement of its principal color, characters, haunts, song, nest and eggs and range. The omission of the authority for matter not based on personal observation renders it impossible to determine just what is original and what is not, thereby decreasing the quotable value of this very convenient pocket manual.—F. M. C.

### The Ornithological Magazines

THE AUK.—Many will welcome in the January number the appearance of a colored plate. One by Mr. Fuertes portrays the adult and young of Kumlien's Gull, a species not figured before, and illustrates a paper by J. Dwight, Jr., on the plumages and molts of the several white-winged species of Gull which are so arctic in distribution as to be rarely seen in our latitude. The writer considers the Point Barrow Gull and the Glaucous as practically indistinguishable. Another technical paper is by H. L. Clark, on 'The Feather Tracts of the Swifts and Hummingbirds,' and his conclusions are that both of these groups have common ancestry, while the Goatsuckers are otherwise related.

Of more popular interest are the papers in the present number which deal largely with the birds of the southern tier of states. We note the first instalment of a 'List of the Birds of Louisiana,' by Beyer, Allison and Kopman; 'Notes on the Winter Birds of Hancock county, Mississippi,' by A. Alli-



son, and a 'Contribution to the Ornithology of South Carolina,' by A. T. Wayne. The last article is particularly rich in careful observations on rare species, and information regarding the Seaside Sparrows, the Marsh Wrens and others. P. T. Coolidge's 'Notes on the Screech Owl' are an interesting contribution to the life-history of the bird, while J. C. Wood tells of 'Autumn Warbler Hunting' in Michigan and B. S. Bowdish of 'Some Breeding Warblers of Demarest, N. J.' The Warblers seem to have been particularly unfortunate in their housekeeping, judging by the story of mishaps and desertions. From a human point of view, the nesting of a Black-throated Green Warbler in a skunk cabbage would seem to be unfortunate as well as most unusual.

Mr. Sage's report of the twenty-third annual meeting of the A. O. U. shows the society to be flourishing, and we note that 'The Auk' has come out in new type.

An item by Mr. Mecker on the interbreeding of the Golden-winged and Blue-winged Warbler should stimulate further field observations, from which more may be learned regarding the vexed questions of hybridization than from pages of theorizing over dry skins.—J. D., JR.

THE CONDOR.—The leading article in the November number of 'The Condor' contains an interesting account by Mr. Robert Ridgway of 'A Winter with the Birds in Costa Rica.' During a stay of nearly six months he traversed the country from ocean to ocean and from the lowlands to the summit of Irazu, 11,500 feet above sea-level. The principal places visited, the characteristic birds, and the difficulties of traveling and collecting in the tropics are all described as fully as the limits of the article permit. Mr. Ridgway declares that one of the strongest impressions of the trip was a realization of the fragmentary character of our present knowledge of tropical bird-life. Notwithstanding the fact that the birds of Costa Rica have been studied more than those of any other region of Central or South America, less than one-third of the country has thus far been visited by naturalists and the possibilities of thorough exploration of

the tropics still offer unusual opportunities to enthusiastic young ornithologists.

Among the articles devoted to Pacific Coast birds should be mentioned the continuation of Finley's illustrated paper, 'Among the Sea Birds off the Oregon Coast,' and also descriptions of a new Nighthawk and Towhee. The Pacific Nighthawk (*Chordeiles virginanus hesperis*) is described by Grinnell from a specimen collected at Bear Lake in the San Bernardino Mountains, Cal., and the Rocky Mountain Towhee (*Pipilo maculatus montanus*) is by Swarth from two types from the Huachuca mountains, Arizona. From an examination of a series of about 150 specimens of Towhees from various points in California, Arizona and New Mexico, Mr. Swarth concludes that two of the forms recently described, *Pipilo maculatus atratus* and *P. m. falcifer*, are not sufficiently distinct from *P. m. megalonyx* to warrant recognition by name.

An interesting account of 'The American Crossbill in Montana' is given by Silloway, who collected a nest containing four eggs on July 27, 1905, in the Flathead forests. He also records the occurrence of the White-winged Crossbill in summer in the same region. Vrooman describes the 'Discovery of a Second Egg of the Black Swift,' collected with the old bird on a cliff near Santa Cruz, California, on July 9, 1905, and Taylor describes a nest and six eggs of the Vaux Swift, collected by Franklin J. Smith, in Humboldt county, California, in a hollow stub not more than two feet from the ground.

With the present number, which concludes the seventh volume, Walter K. Fisher retires from the editorship of 'The Condor,' after a service of three years and an association with the editorial staff since 1901. Under his energetic and successful management each volume has shown a distinct advance in the progress of the journal, a record which we trust will be maintained by his successor, Joseph Grinnell.—T. S. P.

THE WILSON BULLETIN.—The fourth number of this quarterly, concluding its seventeenth volume, contains a sketch of the New Jersey Pine Barrens and their bird-life, by Chreswell J. Hunt; 'Additions and

Additional Data to a Preliminary List of the Land Birds of Southeastern Michigan,' by Bradshaw H. Swales; 'Some Breeding Records from East Point, Georgia,' by William J. Mills; 'A Preliminary list of the Birds of Summit, New Jersey,' by H. H. Hann, in which 149 species are briefly annotated.

In 'Ornithology a Science,' P. A. Taverner presents an ornithologist's reply to the query, 'Why should we study birds?' and in 'Priority' the same writer makes a somewhat illogical protest against the application of the 'Law of Priority' in zoological nomenclature. It is our misfortune to live at a time of the greatest effort to place the names of birds on a consistent nomenclatural basis. Did not the spirit of the age prohibit tolerance of error, we might bequeath, with additions, our inherited weight of nomenclatural sins to those who come after us, and earn a curse where we may hope for a blessing.

Under 'Special Investigations for 1906' the editor outlines a plan for a study of breeding habits, which, if bird-students were as numerous as bird-lovers, might yield valuable returns; 'General Notes,' and 'Notices of Recent Literature' conclude the number.—F. M. C.

THE WARBLER.—The fourth and concluding number of the first volume of the second series of this magazine was published October 31, 1905. It contains colored plates of the eggs of the Carolina Paroquet, laid by captive birds in the possession of Robert Ridgway, and of the egg of Clarke's Crow. The text includes the fourth and last installment of the editor's 'Birds Breeding Within the Limits of the City of New York.' A prefatory note stating that only those species have been treated which have come under the author's "personal observation" explains the omission from this list of some forty species which doubtless nest within the limits specified. The editor also contributes 'Birds Observed at Rangeley Lakes, Maine, June 9 to 15, 1905,' which, with the New York City list, would be more useful for reference if the species were systematically arranged, and 'Long Island Bird Notes.' R. D. Hoyt presents some interesting observations on the 'Nesting of Ward's

Heron' in Florida; P. B. Peabody writes at length on 'The Long-tailed Chickadee,' and A. T. Wayne more briefly on the 'White-eyed Towhee,' which he thinks "should be accorded full specific rank."—F. M. C.

#### Book News

STUDENTS of the habits of birds will do well to read Prof. Francis H. Herrick's 'Life and Instinct' (reprinted from Western Reserve University Bulletin, Vol. VIII, No. 3, May, 1905), in which a trained animal psychologist discusses various matters in relation to the habits of animals about which there has been much divergence of opinion among writers less qualified to speak with authority.

A LIST of birds collected in southern Sinaloa, Mexico, by J. H. Battey, during 1903-1904, by Waldron DeWitt Miller, (Bull. Am. Mus. Nat. Hist. XXI, 1905, pp. 339-369) enumerates 160 species and subspecies, two of which, *Amazona albifrons nana* and *Amizilis beryllina viola*, are described as new.

THE proceedings of the Philadelphia Academy of Natural Sciences (1905, pages 680-690) contains a list, by Witmer Stone, of birds collected as observed by S. N. Rhoads, in the Colorado Delta, Lower California, in February, 1905.

COLLECTIONS of birds made by W. W. Brown, Jr., on the Pearl Islands of Panama Bay and on the Savanna of Panama are reported on by John E. Thayer and Outram Banzo in the Bull. of the Museum of Comparative Zoölogy, Vol. XLVI, 1905, pages 141-160; and Vol. XLVI, 1906, pages 213-224, respectively.

BULLETIN No. 20 of the New York Zoölogical Society, a 'Pheasants Aviary Number,' announces the completion and filling of the Pheasant Aviary in the New York Zoölogical Park, "the sixth great installment of birds thrown open to the public."

THE New Orleans 'Picayune' of December 31, 1905, contains a glowing description of the islands off the coast of Louisiana which through the efforts of the Louisiana Audubon Society have been set aside as a bird reservation.

# 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

Vol. VIII Published February 1, 1906 No. 1

## SUBSCRIPTION RATES

Price in the United States, Canada and Mexico twenty cents a number, one dollar a year, postage paid.

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### Bird-Lore's Motto:

*A Bird in the Bush is Worth Two in the Hand*

## The Christmas Bird Census

THE thousands of observations included in BIRD-LORE'S SIX Christmas Bird Censuses form a mass of information concerning the distribution and numbers of our winter birds, such as one will look for elsewhere in vain. It would be interesting to compare these data with the results of similar observations made at Christmas time, in England; and we hope next year to present returns from observers in England.

Tabulation of these records will afford a definite basis for comparing the bird-life of different years, and enable us to determine whether certain phenomena are merely local or widespread.

For instance, for the first time in years there are no Chickadees in Central Park, New York City, greatly to the regret of resident bird-lovers. Is their absence merely a coincidence, or does it possess a broader significance? The census of 1905 contains reports of some sixty observers north of Washington and east of the Alleghanies, of whom 43 include the Chickadee, the total number recorded being 598. But in 1904, among the same number of census takers, 53 enumerated the Chickadee, the total number being 1,015. The absence of the Chickadee from Central Park this winter is, therefore, presumably connected with an apparent decrease in the bird's numbers.

In the case of some other species the agreement in the returns of the last two years is so marked as to increase our belief in the scientific value of these statistics. Thus in

1904, 32 out of 60 eastern observers list the Song Sparrow, the total being 242, while in 1905 it is entered in 31 out of 60 returns, the total being 224. We have made no attempt to extend the comparison, but, from the illustrations given, it is clear we have here data of no small value.

Singularly enough, the only boreal bird recorded by more than one or two observers is the Northern Shrike, which is included in eleven reports as compared with three in 1904. If the presence of boreal birds is to be attributed to the failure of the food supply in their more northern customary winter homes, why should the Shrike, in winter preëminently a bird-eater, desert what, in the absence of boreal birds in more southern latitudes, is doubtless a land of plenty?

## Popular Science in the Newspapers

IT is difficult to understand why the daily press should have so little regard for the truth—at least when nothing is to be made by falsehood! Just what is gained by objectless, stupid inaccuracy it is hard to say. An article on some scientific subject, for example, has no news value, and we may presume it is published for the edification of the more intelligent reader. Often, however, such articles contain so many gross misstatements that far from winning the commendation due alleged newspaper 'enterprise,' they arouse only contempt or ridicule. Woe to the man whose misfortune it is to be interviewed for an article of this nature, unless he has the foresight to make only written replies to the questions asked him.

For example, in a recent issue of the 'New York Herald,' to his no small surprise, the editor of BIRD-LORE finds himself credited with the following remarkable statements in regard to the colors of birds: "The plumage of the domesticated fowls [in civilization] becomes more brilliantly marked and their idiosyncrasies more accentuated; as witness the Japanese long-tailed fowl with tail feathers many feet long, as against his brother, the common barnyard rooster. Also the long-tailed, bright-marked peacock of our country homes, who is doubtless a development of the smaller and sadder-hued Bird of Paradise!"

# The Audubon Societies

*"You cannot with a scalpel find the poet's soul,  
Nor yet the wild bird's song."*

Edited by MRS. MABEL OSGOOD WRIGHT and WILLIAM DUTCHER

Communications relating to the work of the Audubon and other Bird Protective Societies should be addressed to Mrs. Wright, at Fairfield, Conn. Reports, etc., designed for this department, should be sent at least one month prior to the date of publication.

## Notice to Members

All members of the National Association receive the organ of the Society, BIRD-LORE.

The Finance Committee, for convenience in book-keeping, wish to make the annual dues of members payable in January, the month when each new volume of BIRD-LORE commences, in order that the members may receive complete volumes of the magazine. A further and important reason is that the committee may know approximately how large a fund it will have to expend during the year, and may make up its budget accordingly. Notices in accord with the above explanation are now being mailed, and it is hoped that members will cheerfully approve the plan and promptly remit their dues and contributions.

## The Bradley Murder

The man who shot and killed our warden, Guy M. Bradley, is free, as the grand jury failed to indict him. The National Association employed Colonel James T. Sanders, of Miami, Florida, as its representative to aid in securing justice. His statement regarding the case is given to show our members why an indictment was not found.

"Smith, the slayer of Bradley, had a son about eighteen or twenty years of age, who had on previous occasions been guilty of violating the laws by killing plume-birds, and had been arrested by Bradley, acting as deputy sheriff and game warden, on two previous occasions. There was, on account of these arrests, and other matters, bad blood existing between young Smith, his father, and the officers of the law, and on three separate occasions, Smith, the father and murderer, made open threats that if Guy Bradley ever attempted to arrest him, or any of his fam-

ily, again for shooting plume-birds, he would kill him.

"On the day of the killing, Smith, his son, and two smaller sons, aged seven and eleven years, and another young man; also two friends, one Ethridge, and one Alonzo Sawyer, on board of Smith's schooner boat, sailed up to the rookery, directly opposite and about two miles distant from Bradley's house, and anchored. Young Smith and his friend went ashore into the island where the rookery was located, and there began shooting the egrets. The discharge of the guns attracted Bradley's attention, and, being familiar with the boats in that vicinity, and knowing this to be Smith's boat, but not suspecting any designs of foul play, got into his small skiff boat, and went out to stop the killing of the birds, and also arrest the offenders, if necessary. When near Smith's schooner, Smith, knowing Bradley and his boat, and seeing him on the way to his schooner, fired his rifle as a signal to his boy and the other young man, to return to the schooner, which they did, having their birds already killed, in the boat with them, and arriving at the schooner at about the time Bradley arrived. Smith asked Bradley what he wanted, and Bradley informed him that he wanted his son, and his son's companion, under a charge of violating the law by shooting plume-birds. Smith said, 'Well, if you want him, you have got to have a warrant.' Bradley informed Smith that where he found parties in the act of perpetration of a crime, a warrant was not necessary. Smith then said, 'Well, if you want him you have got to come aboard of this boat and take him,' at the same time picking up his rifle. Bradley said, 'Put down that rifle, and I will come aboard.' This is all the testimony we had

in regard to this part of the case except Smith's statement, which was to the effect that Bradley immediately fired at him with his pistol, the bullet striking the main mast of the boat, behind which Smith was standing, and Smith immediately fired his rifle at Bradley, killing him instantly. Smith's sons testified to the facts as herein stated, and they claim that while they did not see the shooting, they heard the two reports, both rifle and revolver firing almost simultaneously. Alonzo Sawyer and Ethridge, who were down inside the cabin of the boat, claim they heard only the two reports coming almost together, and that immediately afterwards, and as soon as Bradley's boat had drifted away, Smith showed them the mark of a bullet, with the bullet embedded in the mast. After Bradley was shot, he fell forward in the bow of his skiff-boat, and the boat drifted off toward the shore, his body not being found until the next day, when it was removed and buried. The coroner's jury, having been impeached, after hearing the testimony, returned the verdict charging Smith with murder, together with Sawyer and Ethridge, as accessories to the murder; and thus the case rested.

"There were no other witnesses, except those who were friends to Smith, nearer than the shore, situated two miles or more away, and from the time of the return of the coroner's jury, and the committing trial, no steps had been taken to secure the attendance of witnesses at the Circuit Court in Key West, until I arrived there and looked into the situation of affairs. I was then compelled to send away to Cape Sable and Flamingo, a distance of sixty-five miles, to secure the witnesses that I had ascertained knew something about the case, and, as the weather was very stormy, and sail-boats the only method of traveling, you can realize some of the difficulties I experienced in attempting to get the matter before the grand jury. By writing and telegraphing I secured permission of the state's attorney to take one necessary witness from here with me, and I attempted to prove, by all of the evidence obtainable, that Bradley did not fire the shot as claimed by Smith, and, in fact, made no

overt act toward injuring Smith at all and I am perfectly satisfied that if the real facts of the case are ever known, or shown, it will develop that it was a well-laid plot to murder young Bradley on account of the ill-feeling existing against him, occasioned partly by his vigilance in attempting to execute the laws. The pistol of Bradley's did not show by the powder marks in the barrel that it had been discharged, neither was the cylinder under the hammer of the pistol in a correct position, showing that the pistol had not recently been discharged. But I was unable to obtain sufficient evidence on these points to convince the grand jury, and, taking the whole matter into consideration, they deemed it unwise to find an indictment.

"I can say that I am much surprised that the authorities down there had taken it as a matter of consideration already established, that there would be no indictment found, and had made practically no efforts, until my arrival in Key West, to secure the attendance of state's witnesses or, in fact, to get the matter into proper shape to be presented to the grand jury. Only one state's witness had been summoned or bound over to appear and testify in behalf of the state. Who is to blame for this negligence on their part, I am not prepared to say, but am sorry to report to you that such was the fact. I believe the failure of the grand jury to indict in this case was a grave miscarriage of justice, and so I shall ever believe."

#### The Mrs Bradley Fund

An acknowledgment of the subscriptions to this fund was omitted in December BIRD-LORE, owing to lack of space. The fund is growing slowly, and there is no doubt but that a sum will be eventually realized that will enable the Association to carry out the plan outlined in October BIRD-LORE. There never was an appeal presented to the public which demanded more speedy and liberal support. If you have not contributed, stop a moment in your busy life, and think about this case. A husband and father, a trusted employee of this Association, murdered while in the performance of his duty; the wife and children left entirely destitute: Are you not morally bound to do your part in caring for

the stricken ones? The amount is not significant. The spirit to care for the helpless, and, above all, to recognize the fact that our warden lost his life because he was doing his part to carry out the principles of this Association, is the part you are asked to take.

Mrs. Bradley, in a recent letter, writes: "I am at my mother's in Key West, as I have not been able to get home yet. I take in sewing, quilting and fancy work, and make two or three dollars a week. My children are too small to help, as one is five years old and the other two years. My brother, who is fourteen years old, helps me some."

Some inquiry has been made, and it is found that the minimum sum needed to buy a very small house and lot in Key West is

\$1,200. The sum of \$791.50 has been contributed, leaving a balance of over \$400 still needed to reach the minimum sum. General Palmer, of Colorado, who has already contributed very liberally to the fund, has agreed to pay one-half of the minimum balance needed, provided the Association will collect the other half before July 1, next. It is hoped that long before that date the widow and children will be occupying a comfortable home of their own, given to them by those who recognize the martyrdom of Guy Morrell Bradley.

Subscriptions reported in October	
BIRD-LORE . . . . .	\$78 00
Additional subscriptions to January 6, 1906 . . . . .	713 50
Total . . . . .	\$791 50

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Clark, Miss S. E. . . . .	1 00	King, Mrs. . . . .	1 50	Starr, Minna D. . . . .	1 00
Comegys, Miss . . . . .	1 00	Lehman, Chas. N. . . . .	1 00	Surface, Mrs. H. A. . . . .	1 00
Crafts, Mrs. J. W. . . . .	10 00	Lehman, Dr. F. F. . . . .	1 00	Sweiger, Mrs. J. L. . . . .	1 00
Crocker, W. . . . .	5 00	Leibrick, Miss . . . . .	1 00	Tayer, Ezra R. . . . .	5 00
Cummings, Miss E. . . . .	5 00	Lemon, Mrs. M. L. . . . .	5 00	Tayer, Mrs. Ezra R. . . . .	15 00
Davenport, Mrs. E. B. . . . .	5 00	Lockwood, Miss E. H. . . . .	10 00	Thayor, John E. . . . .	50 00
Deane, George C. . . . .	5 00	Logan, Mrs. A. S. . . . .	1 00	Thornton, Laura M. . . . .	1 00
Dewey, Dr. Chas. A. . . . .	10 00	Lord, Mrs. . . . .	1 00	Tucker, J. R. . . . .	2 00
Dod, Miss H. M. . . . .	1 00	Lovell, Mrs. Mary F. . . . .	1 00	VanHuyck, J. M. . . . .	1 00
Donaldson, John J. . . . .	5 00	Lowry, Mrs. A. L. . . . .	25 00	Van Name, W. G. . . . .	5 00
Drude, Miss L. F. . . . .	5 00	MacDougall, Geo. R. . . . .	10 00	Wadsworth, C. S. . . . .	10 00
Eaton, A. A. . . . .	1 00	McKee, Caroline A. . . . .	5 00	Waterhouse, Mrs. . . . .	1 00
Ells, George P. . . . .	1 00	Marmon, Mrs. D. W. . . . .	10 00	Wales, Edward H. . . . .	10 00
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Fuertes, Louis Agassiz . . . . .	5 00	Parker, E. L. . . . .	10 00	Willis, Mrs. A. . . . .	5 00
		Patten, Mrs. J. W. . . . .	1 00	Wyatt, W. S. . . . .	2 00
		Patten, Mrs. Wm. . . . .	1 00		
		Peabody, P. B. . . . .	3 00	Total . . . . .	\$713 50

### Reservation News

The two new bird reservations in Michigan, announced in the Annual Report, are now in charge of the head light-keepers on the adjacent islands, which are light-house reservations. Commander Charles E. Fox, U. S. N., Inspector Eleventh Light-House District, issued orders to the respective keepers as follows: "Enclosed herewith are copies of an executive order from the President of the United States relative to the unsurveyed islands of the Siskiwit group of islands and the Huron Islands group, one of which please hand to each of your assistants. You are instructed to aid in protecting the birds about those islands as far as may be, without interfering with your duties as light-house keeper." In the annual report (p. 300) the announcement was made of an effort to buy an island, located on the Maine coast. The Governor and Council of the state declined to sell the property, as it is their settled policy not to dispose of public lands for any purpose. The state officials, however, recognizing the value of the work of the National Association, generously gave a free lease of Old Man's Island, which is to run as long as the Association uses the island for a bird refuge and breeding ground and maintains effective wardenship. This lease has been duly recorded, is being widely advertised, and a warden has been appointed. The Association has practically established another reservation which is a particularly important one, as it is the only place in the United States where the Eider Duck is known to breed. The hearty coöperation of the Governor and Council of Maine in the work of this Association is very gratifying indeed, as it shows a most intelligent appreciation of the needs of bird protection and, moreover, indicates a high standard of civics. This Association has found it to be invariably true that when matters relating to bird and game protection are removed from politics, as they should always be, the very best results are obtained.

### Millinery and Aigrettes

Eastern milliners seem loth to give up the use of aigrettes. Appeals, arguments or

fear of the law do not restrain them, nor can some women be made to realize the cost, in pain and blood, of the White Heron's plume. Aigrettes are everywhere seen, and it is a wonder to the ornithologists where they all come from, and how much longer the White Herons will last. Infrequently a hat is seen trimmed with Grebe, or the plumage of a Tern or Gull. This all shows that in the vicinity of New York the desire is still strong to sell the plumage of wild birds. It is with sincere pleasure that it can be stated that in the West a very different spirit obtains among the milliners. Our director, Mr. Ruthven Deane, has done a great deal of active personal work with the officers of the Millinery Jobbers' Association of Chicago. He has been so successful, by repeated visits and letters, that some of the largest retail dry-goods establishments in Chicago will not display aigrettes in their show windows, nor sell them. All honor to them for their stand! Mr. Deane took up the matter of the use of bird plumes as millinery ornaments with Mr. Frederick Bode, president of the Millinery Jobbers' Association, with the following result:

"*Dear Sir:* At the convention of our Association held in Louisville November 9 and 10, after considerable discussion, in which was brought forward the fact that some houses sell aigrettes and others do not, both retail and wholesale, it was finally brought to a focus, and the following resolution was adopted:

"WHEREAS, We realize that the Audubon Societies of the United States are engaged in the laudable work of preserving from destruction and extinction song-birds and certain other species, upon high moral grounds, and that largely through their influence many of the states have passed restrictive laws on the subject, and,

"WHEREAS, There is a decided variation among the states in the subject matter of these laws, and in their interpretation and administration,

"Therefore, Be it resolved by the Millinery Jobbers' Association in convention assembled,

"First, That we approve of the prohibition of the sale of song-birds, Gulls, Terns,

Grebes, Herons, or any part thereof, including aigrettes.

"Second, That we pledge ourselves, collectively and individually, not to buy the aforementioned after January 1, or sell or offer for sale any of these articles after July 1, 1906.

"We trust that this endorsement of the Audubon Society will suffice to show you that we morally support you, and it will be my duty and pleasure to insist upon the carrying out to the letter of this agreement as far as our Association is concerned. Beyond this, however, we should have your support in insisting to the large retailer, which is the department stores, that they refrain from the sale of these articles and give you their moral support, the same as we have done. Otherwise our efforts are at naught, and they will continually tempt the jobber to handle the article, and be the means of finding some weakling who will yield to their demands.

This agreement is practically a renewal of the one entered into in 1903, which was for three years. The executive of the National Association urgently requests the members and officers of the State Audubon Societies to do all in their power to help carry out the provisions of this agreement, especially in the following states, where the millinery jobbers are principally engaged in business: Illinois, Missouri, Nebraska, Iowa, Minnesota, Colorado, Oklahoma, Wisconsin, Michigan, Ohio, Indiana, Kentucky, Tennessee and Texas

The willingness of the Western Millinery Jobbers to uphold the principles of the Audubon Societies certainly deserves the highest appreciation, and conclusively shows that they are guided by a sense of civic duty rather than a sordid spirit and a mere greed for money.

In Massachusetts the president of the Fish and Game Commission is enforcing the anti-plumage law very effectively. Recently one Lewis Mitchell, Chief of the Passamaquoddy tribe of Indians at Pleasant Point, Maine, was arrested in Boston while he was attempting to sell 128 strips of Gulls' plumage taken from birds shot in Maine. His defense was that, being an Indian, he had certain treaty rights which permitted him to

kill the birds, and that the game laws did not apply to him. He was convicted, paid a fine of fifty dollars, spent two days in jail, and the plumage was confiscated. The Fish and Game Commissioners of Maine had their attention called to the case, and there is every probability that Mitchell will also have to stand trial in Maine for his violation of the statutes of that state. Commissioner Carleton says that Indians are subject to the game laws, and have no privileges that are not enjoyed by any other citizen. This point was decided in a test case, in the Supreme Judicial Court, 84th Maine, p. 465.

The same question has arisen in Florida, and it has been found, on investigation by the National Association, that in that state also Indians are subject to the same laws which govern all other citizens. The Seminole Indians, who reside largely in the Everglades, are persistent plume-hunters and are in the habit of selling their illegal wares to the guests at the large hotels.

It is intended to break up this traffic, and orders have been given to the warden in Dade county to arrest the first Indian seen offering for sale the plumes of protected birds.

#### Bahama Islands

Mention was made in the last Annual Report (p. 306) of the bird law just adopted in these Islands. An appeal has been received from Miss Alice M. Boynton, head of the Normal and Industrial Institute, (Incorporated) located at Boynton, New Providence, for second-hand books, pamphlets, charts or any other matter that will arouse interest among the white and colored children of New Providence in the protection of birds, that they may be allowed to increase. This is a new school, founded in 1904, and it can exert a great influence along Audubon lines. The members of all Audubon Societies and the readers of BIRD-LORE are urged to contribute any second-hand printed matter to this school, especially that relating to natural history in all its branches. Contributions sent to the office of this Association will be boxed and shipped.







CARDINAL  
UPPER FIGURE, FEMALE; LOWER FIGURE, MALE.  
(One-half natural size.)

# THE CARDINAL\*

By WILLIAM DUTCHER

President of National Association of Audubon Societies

## National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 18

The Cardinal is one of the most brilliant of American birds: the name is derived from its color, which is a deep red, somewhat less vivid than scarlet. This color is supposed to be named from the vestments of a cardinal, an ecclesiastic of high rank in the Roman Church. The female bird, while not so conspicuous as her mate, is clad in a rich brown with just enough of red to light it up. They are indeed a striking pair, and wherever they are found soon become favorites. They are known as Cardinal Grosbeaks, Red-birds, Crested Red-birds, Virginia Nightingales, and lately James Lane Allen has made familiar Kentucky Cardinal. The illustration shows the Cardinal's most prominent features,—a very large strong bill, a conspicuous crest, which can be erected or depressed at will, short rounded wings, and a long tail. The length of the Cardinal is a little over eight inches from tip of bill to end of tail.

Once seen, the Cardinal can never be mistaken for any other bird, especially as its plumage virtually never changes but remains much the same at all seasons of the year. Cardinals are resident wherever they are found, and their center of abundance is in the southern portion of the United States. The northern limit of its range is approximately a line drawn from a point in the vicinity of New York City, westward to southeastern Nebraska, thence southward to Texas, where it is found in the greater part of the state. These lines are arbitrary, but are given in order that a teacher may show scholars in a general way where Cardinals can be found. Further, they give teachers and pupils who reside outside these limits an opportunity to extend the Cardinal's known range by proving that it lives in their locality.

There have been records of the Cardinal made as far north as Nova Scotia and southern Ontario; but it is believed that these were escaped cage-birds,† the Cardinal, probably owing to its beauty of plumage and richness of song, having long been a favorite cage-bird. Alexander Wilson, in 'American Ornithology' (Vol. II, page 145), which was published in 1828, says: "This is one of our most common cage-birds, and is very generally known, not only in North America, but even in Europe; numbers of

### \*THE CARDINAL

Order—*Passeres*

Genus—*Cardinalis*

Family—*Fringillidae*

Species—*Cardinalis*

†Read the charming story "The Cardinal at the Hub" in BIRD-LORE, Vol. I, page 83, by Ella Gilbert Ives.

them having been carried over both to France and England, in which last country they are usually called Virginia Nightingales."

Dr. Russ, the great German aviculturist, says, "Beloved in its home by both Americans and Germans, it is protected and caught only for the cage-bird fancy. Had been bred in Holland a century and a half ago and later in England." It is true that until recently large numbers of Cardinals were caught or taken from the nest while young, for shipment to foreign countries by bird dealers. Owing to the efforts of the National Association, this traffic is a thing of the past. The Model Law, which is in force in all the states where the Cardinal is found, prohibits all traffic in these birds and forbids their being shipped from the state.

The Cardinal is too beautiful and valuable a bird to be confined within the narrow limits of a cage, where its splendid spirit is soon broken by its unavailing attempts to escape. Mrs. Olive Thorne Miller, in one of her charming pictures of bird life, says of a captive Cardinal, that, "He is a cynic, morose and crusty." Such a character cannot be attributed to the Cardinal when it is at liberty. Its wild free song, its restless activity and its boldness are the antithesis of a depressed cage captive. Even when it receives the best care from its human jailor it is still a prisoner confined in a space so small that it never has an opportunity to stretch its wings in flight, nor can it ever bathe in the bright sunshine or view the blue skies above it. The whispering of the winds through the sylvan shades is lost to the captive forever. Is it strange that the nature of this wild free spirit changes?

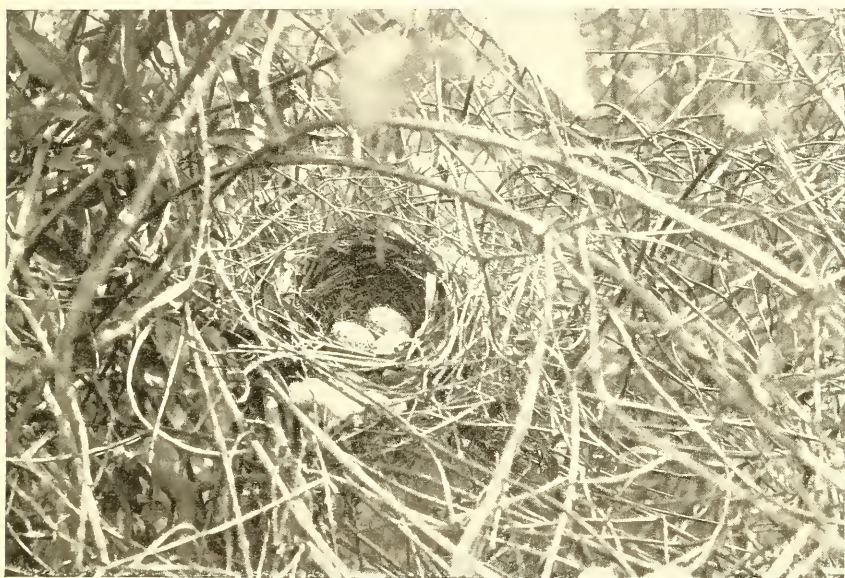
The writer has seen many hundreds of these beautiful birds in cages ready to be shipped, each one doomed to a short existence, a prisoner and an exile. Fortunately, this condition is now changed; and, had the National Association accomplished no other good, the stopping of the cage-bird traffic would be a sufficient reason for its organization.

In the South, where the Cardinal is one of the most abundant birds, it is a special favorite, rivaling the Mocking-bird in the affections of the people. It is commonly found in the towns as well as the rural districts. The female bird builds the nest, which is loosely constructed of leaves, bark, twigs, shreds of grape-vine, and is lined with dry grasses. The nest is placed in bushes or vines from eight to ten feet from the ground. Three or four white eggs, speckled with brown, are laid, and it is probable that in the South two broods of young are raised each season. The home life of Cardinals is a pattern of domestic felicity, so true are the sexes to each other. Even in winter they seem to be paired, for a male and a female are always seen together. However, during the season of incubation the tender solicitude of the male for his mate is best shown. In fact, his extreme anxiety that the home and its inmates should not be discovered excites him so much that he actually leads the visitor to the nest in the attempt to mislead.

The song of the male Cardinal is loud and clear, with a melodious ring,

"What cheer! What cheer! What cheer!" winding up with a peculiar long-drawn-out *e-e-e*. Contrary to the usual custom in bird families, the female Cardinal is an excellent singer, although her notes are in an entirely different key from those of her gifted mate, being lower and to some ears more sweet and musical.

Audubon's 'American Ornithological Biography' is so rare at the present day, being found only in the largest libraries, and is consequently so inacces-



NEST AND EGGS OF CARDINAL

Photographed in Central Park, New York City, by B. S. Bowdish

sible to the ordinary reader, that his description of the song of the Cardinal is quoted in full.

"Its song is at first loud and clear, resembling the finest sounds produced by the flageolet, and gradually descends into more marked and continued cadences, until it dies away in the air around. During the love-season the song is emitted with increased emphasis by this proud musician, who, as if aware of his powers, swells his throat, spreads his rosy tail, droops his wings, and leans alternately to the right and left, as if on the eve of expiring with delight at the delicious sounds of his own voice. Again and again are those melodies repeated, the bird resting only at intervals to breathe. They may be heard from long before the sun gilds the eastern horizon, to the period when the blazing orb pours down its noonday floods of heat and light, driving the birds to the coverts to seek repose for a while. Nature again invigorated, the musician recommences his song, when, as if he had never strained his throat before, he makes the whole neighborhood resound, nor

ceases until the shades of evening close around him. Day after day the song of the Red-bird beguiles the weariness of his mate as she assiduously warms her eggs; and at times she also assists with the modesty of her gentler sex. Few individuals of our own race refuse their homage and admiration to the sweet songster. How pleasing is it, when, by a clouded sky, the woods are rendered so dark that, were it not for an occasional glimpse of clearer light falling between the trees, you might imagine night at hand, while you are yet far distant from your home, how pleasing to have your ear suddenly saluted by the well-known notes of this favorite bird, assuring you of peace around, and of the full hour that still remains for you to pursue your walk in security! How often have I enjoyed this pleasure, and how often, in due humbleness of hope, do I trust that I may enjoy it again!"

In addition to its great esthetic value of song and plumage, the Cardinal has another important character which should endear it to the husbandman. Its food is varied, consisting of wild fruits, such as grapes, berries, mulberries, cedar berries, seeds of grasses and of many species of weeds, also large numbers of adult beetles, grasshoppers, crickets, flies, ants, and their larvæ: it is especially fond of rose-bugs. The Cardinal is from every point of view a bird of great interest and value, and any person who makes its intimate acquaintance will form a life-long friendship.

#### Questions for Teachers and Students

What is the local name of the Cardinal in your vicinity? Describe the plumage of the male and the female bird, or reproduce them on the outline sketch. Describe the plumage of the nestling. How long is a bird called a nestling? Does the Cardinal sing during the entire year? If not, during what months is it silent? Describe the alarm note. If possible, imitate the song. Give size of Cardinal, shape of body, wings, tail and feet. Compare it with some well-known bird, like the Robin. Are Cardinals ever seen in flocks? What is the largest number you have ever seen together? Have Cardinals any peculiarities of flight? Do they breed in your locality? Describe the nest in detail. What food have you observed Cardinals eating, either vegetable or animal? Describe the food in detail.

NOTE.—Follow suggestions given in questions in the Goldfinch leaflet, and always bear in mind that the observation notes and papers presented by the student are of far greater value if they are the result of studies made of the live bird in the garden, field or forest.

When you think you have learned something new about the song, or habits, or food of the Cardinal, send a short note of it to BIRD-LORE, for the benefit of other students.

NOTICE—This leaflet, with outline figures for coloring, can be obtained of the National Association, 141 Broadway, New York. Price: 1 dozen, 15 cents; 100, \$1; 1,000, \$9.

# Bird-Lore



EDITED BY  
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES  
BY

**The Macmillan Company**

HARRISBURG, PA.

NEW YORK

LONDON

# Bird = Lore

March - April, 1906

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



Reduced facsimile of the reproduction of Ernest Thompson Seton's drawing of the Bobwhite. Presented to every subscriber to Vol. VIII, 1906, of BIRD-LORE. The original, printed on heavy plate paper, suitable for framing, is nearly 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, 1905, 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 Seton Bob-white picture, which should be considered due notification of the entry of your subscription.

If you do not care to renew, will you please notify us.







1. MYRTLE WARBLER, ADULT MALE.
2. MYRTLE WARBLER, ADULT FEMALE.
3. MYRTLE WARBLER, YOUNG.

4. AUDUBON'S WARBLER, ADULT MALE.
5. AUDUBON'S WARBLER, ADULT FEMALE.
6. AUDUBON'S WARBLER, YOUNG.

(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. VIII

MARCH — APRIL, 1906

No. 2

## Some Bird-Notes from the Magdalens

By HERBERT K. JOB

Author of "Wild Wings" and "Among the Water-Fowl"

With photographs from nature by the author

ALTHOUGH Bird Rock is undeniably the star attraction on a bird-lover's trip to the rock-bound, spruce-girt, wind-swept Magdalen Islands, there are many other sights of bird-life there which are of absorbing interest. A constant spur to activity is the realization that those marshes, swamps, thickets and stretches of sand conceal many rarities, upon some of which one is liable to stumble at any moment. Putting my hand into an old Flicker's hole, one day, I pulled out a young Saw-whet Owl, which was just about as liable to have been a Richardson's. We pry about among the small spruces and start up Mourning and Magnolia Warblers, Fox Sparrows, Juncos, Blackpolls, Winter Wrens, Crossbills, Siskins, and the like, and at any time we may chance upon a nest. Though I never happened to run across a Redpoll, my friend, Mr. Callendar, whom I directed there, in the season of 1905, was lucky enough to find a nest of this beautiful bird, and in the same tract of woods which in other years I had searched. The Pigeon Hawk and the Short-



LEAST SANDPIPER

"The anxious parent followed me"

eared Owl are known to nest there, and my boatman, an intelligent fellow, who has done some collecting, declared that he had known a pair of Snowy Owls to raise a brood of young.

The shore-birds found there in summer are very interesting. The Least Sandpiper is quite common, and if one will only keep stirring around over the marshy tundra, he will probably happen upon a nest. A pair of them raised a brood of the daintiest little chicks imaginable in a dry pasture right by the house next to the one where we were staying. How persist-



WILSON'S SNIPE ON NEST  
"Piping her remonstrance"

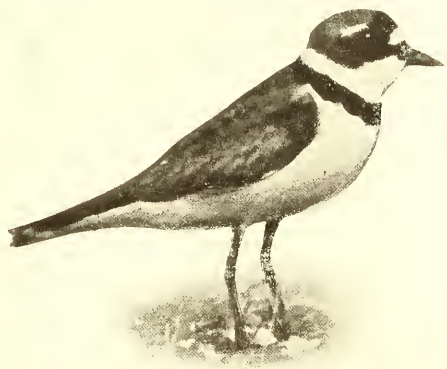
ently the anxious parents followed me, twittering and scolding, is evinced by the reflex snapshots which I have to show for it.

Then there is the Wilson's Snipe, which we can see almost any day winnowing the air with a humming sound like that made by the Golden-eye, twittering its love-song, or scolding sharply from the tip-top of a low spruce, if we are too near its nest or young. If we discover the nest by flushing the owner from it, she will soon return, perhaps even while we are looking on. I have a series of pictures which I took by setting the camera close to a nest and pulling a thread attached to the shutter. In one of these—taken as I stood out in plain sight, only a few steps away—the Snipe is just settling down upon the eggs, eyeing me and piping her remonstrance.

The little Plovers—Piping and Semi-palmated—resort together in scattered colonies, to lay their eggs amid the sparse beach-grass, or at its edge,

in the dry sand a little way back from the shores of the inlets. Their eggs are not easy to see, and while we are walking about with downcast eyes, trying to make eggs out of stones, the pretty birds are pattering along just before us, uttering melodious piping calls. The eggs begin to hatch soon after the middle of June, and, if we can discover a single one of the odd-looking, stilted puff-balls of chicks, there will be a good chance to snapshot the mother bird as she comes bravely to the rescue. At least I know that the mother "Ringneck" will be that accommodating, for one of these trotted up and brooded her baby on the sand close by where I was seated with the camera. Of the omnipresent Spotted Sandpiper, we can find nests by the dozen, and who can tell but what the nest of the Lesser Yellow-legs may be the lucky strike, for I have seen these birds at East Point in the breeding season.

If one is fond of the Wild Ducks, it will prove interesting and profitable to search for their nests,—on small islands, in reedy bogs, on the grassy shores of ponds, and under small spruces. It is well to beat over any favorable ground systematically, and without making much noise. Then, when approach happens to be made to the right spot, the Duck will sit close until almost



SEMI-PALMATED PLOVER

stepped on, and then go fluttering off, to the entrancing excitement of the ornithologist, who must be spry to note color and markings and identify her before she gets too far away. I have thus found nests of the Dusky Duck, Blue-winged Teal, American Scaup and Red-breasted Merganser. The Green-winged Teal is also there, and of course breeds, as, I suspect, from local reports, the Oldsquaw occasionally may do. The Dusky Duck is common, and generally breeds early, having some broods out by the middle of June. However, I have found sets of fresh eggs late in that month. The Teal is also early, but the Scaup and the Merganser are late. The latter is very abundant, being the commonest Duck, but one will not readily find nests before about the first of July, or as long as the females are seen in numbers with their mates.

Most of their nests seem to be located under thick, low spruces or junipers, and hence they are hard to find. One nest which we discovered, however, was in a tract of thick grass, just back from the shore of an inlet. Another was in the grass by a small bush on a small islet, or 'nubble', in a pond. Another, on Seal Island, I found by accident. I was coming through the spruce-thicket out to the steep, rocky shore, when I noticed two or

three Duck's feathers on the ground. Then I began to search, and close by, under a spruce bough which grew out flat along the ground, there was the downy nest with eight eggs. Just then I heard a shout from one of our party,—“Look out! A ‘Shell-Duck’ has just flown out of there!”



NEST OF RED-BREAŒTED MERGANSER

In nearly all the numerous ponds there are Horned Grebes breeding, and it would be a fine thing if some one would go into protracted hiding near a nest and make the camera tell the world how the Grebes conduct their domestic arrangements.

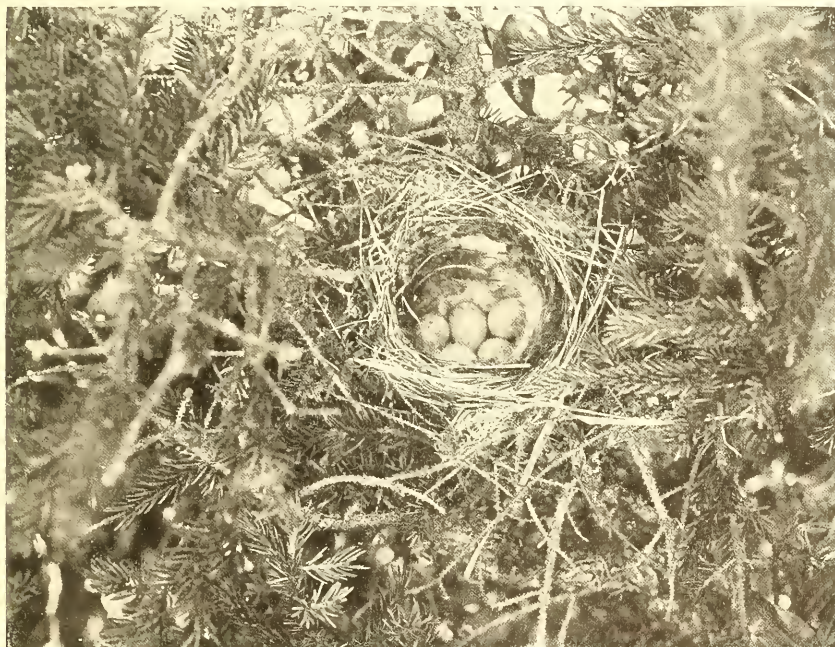
There are American Bitterns' nests galore in the reeds or rushes bordering these ponds, and Rusty Blackbirds in the spruces near by, where the ground is swampy. They build nests much like those of the Crow Blackbird or the Robin, and lay by the middle of May, for the young are out of the nests almost invariably before the middle of June, cool as it even then is. The Ravens, which build their great stick nests, lined with sheep's wool, in the niches of the cliffs, are much earlier yet, and the young are flying long before we are likely to reach the islands.

Small colonies of the Common Tern are quite numerous. I waded out to one on a small islet in a pond, and saw the ground strewn with eggs. Though there was plenty of room for more, I was surprised to find that one pair in the company had built their nest a little way out from shore among the profusion of dead reeds, over the water, exactly after the man-

ner of the Franklin's Gulls in the West. The owners might possibly have been Forster's Terns, but this is too much out of their range to render it likely, and it is more probable that a pair of the common species, seeing a pile of dead reeds, thought they might as well hollow out a nest among them.

Seldom have I seen more beautiful nests than some of those built by the northern song-birds, made soft; snug and warm to counteract the cold wind and fog of the northern June. One of the Fox Sparrow was a 'dandy.' The female flushed right before me from a low spruce bush, about waist-high, in a scrubby tract, and there was the large, compact nest, constructed first as an outer cup of green moss, then an inner nest of grass, and inside that one of black and white horse-hairs. In it were four heavily browned eggs, as large as those of the Rose-breasted Grosbeak.

Another gem of bird-architecture was built by Blackpoll Warblers, which are very abundant. It was in an exactly similar situation to that of



NEST OF BLACKPOLL WARBLER

the Fox Sparrow, and I found it by thrashing through the scrub with a long switch and thus starting the owner off from her nest. It was, of course, smaller and daintier, yet it was built after the same plan and of about the same materials as the other, save that for the inside lining, in addition to the horse-hair, was a beautiful and abundant assortment of

feathers, notably of Wild Ducks, ornamented with a red catkin, probably of the alder.

One could do far worse than to spend the entire season at the Magdalen's to study bird-life, and remain long enough to take in the fall migration, especially of the shore-birds, now so scarce on the coasts of the New England and Middle States. In such an event, prudence would require taking along a good supply of canned provisions, unless one wants to live on the soda-biscuit, crackers, cheese and 'tea' of the poor but hospitable islanders.

## A Familiar Sparrow Hawk

By NATHAN CLIFFORD BROWN

TOWARD five o'clock of an afternoon about the beginning of January, 1906, I saw a Sparrow Hawk, apparently a male, fly under the piazza roof of the Kirkwood, a winter hotel which had just been opened for the season, at Camden, South Carolina. He immediately flew out again, but soon returned. Within a few minutes he went in and out several times. Finally he alighted upon an electric light wire running along the rafters of the piazza, then, after a moment, descended to the capital of a pillar at the corner, whence he mounted almost instantly between two rafters and disappeared.

I found him perched upon an irregular piece of board, perhaps twelve by eight inches along its longest sides, which had been nailed between the rafters so that three electric-light wires might be easily brought about the corner. With the rafter running obliquely and forming the ridge in the roof at the corner, and with two intersecting rafters and the roof, it made a sort of box closed all about except upon one side, but with a small triangular hole at one corner in the bottom. This hole was about three inches by three by four. The bird's wings and tail protruded through it. The box was about five inches high. As I stood beneath it, I suppose it was about seven feet above my head.

Until January 20 I went to this place several times every day, and never failed to find the bird there about five o'clock in the afternoon; I never found him at other hours except before he left in the morning. He did not, however, go to roost regularly. One very fine afternoon, when the sun was fully an hour high, I found him already established for the night at twenty minutes to five, eastern time. Two days later, the weather being damp, and the sky heavily overcast, he had not retired at ten minutes past five. At a quarter to six he was there. On January 13 I found him in his box at twenty-eight minutes past four. This was a dark afternoon, with a drizzling rain falling and the thermometer at forty-six. On January 15 he went to roost at a quarter past five, on the departure of a carpenter who



had been at work within a few feet of the box. Not three minutes later the carpenter returned and struck a couple of resounding blows with his hammer. Instantly the Hawk swooped out, but only to seek a perch on a tree close by. As soon as the carpenter finished his work the Hawk promptly returned to the box.

On no other occasion, so far as I could learn, did he ever leave it before morning, once he had taken up his position inside. He became perfectly accustomed to the presence of people near and directly beneath it. The noise of conversation and walking about, abrupt movements, even the play of children, did not, apparently, disturb him in the least. The only movement I ever detected on his part, when he was in his box, was a slight quivering of wings and tail. But he would not enter the box if anybody were moving about close at hand. He would wait near by until promenaders and romping children were at a comfortable distance, and then he would dart under the piazza roof. His manner of approaching and entering his box was always the same. There was a halt upon a wire, a descent to the corner capital, then a quick flight upwards. He went in through the opening at the side. Whenever I saw him go out, he went with a swoop.

He had several preferred perches, within fifty yards or thereabouts of his box, where he was always to be seen for longer or shorter periods before he went to roost, and often at other hours. One of the perches was an old stump, ten or twelve feet high, perhaps twenty yards distant from the railing of the piazza. He also perched upon the roof of the hotel and upon its outbuildings.

On January 16 I found the Hawk in his box at twenty minutes past seven o'clock in the morning, but he left as I took up my position beneath him. Here, then, was a night's rest of about fourteen hours. The morning was overcast and dark. But the next morning was fine. The Hawk was in his box at seven o'clock. I sat down within a few yards. At twelve minutes past seven I heard movements in the box, which continued until a quarter past seven, when the Hawk went out. Next day, January 18, he went out at ten minutes past seven.

On January 19, a fine, warm day, he went to roost at twenty minutes to six, while I sat on the piazza within twenty yards of his box.

On January 20, for the first time since he attracted my attention, he was absent for the night. He was also absent during the three succeeding nights. On one of these nights he twice attempted to enter, but desisted, I thought, because there were too many people moving about near him.

On January 24 he went to roost at twenty minutes to six. On January 25 he went in at a quarter past four. This was the earliest hour at which I ever saw him enter. A cold rain was falling at the time.

He continued to occupy his box at night until January 29, when he was absent again. On February 2, 3 and 4 he went to roost as usual.

On February 5 the proprietor of the hotel, feeling that something radical must be done to keep the piazza floor clean, had the Hawk's box neatly boarded up. About six o'clock that afternoon the bird attempted to enter. He mounted to the box from the capital of the pillar and clung there for a moment. Unable, of course, to enter, he descended again to the capital. He repeated five times the procedure of attempting to enter and descending to the capital, once in the meantime perching upon an electric-light wire and scrutinizing the box with outstretched neck. Then he flew away. In a few moments he was back again upon the capital. Once more he attempted to enter the box, and once more he perched upon the wire and gazed long and fixedly at his former roosting-place. At ten minutes past six o'clock he gave up and left for the night.

But the next day, February 6, at five o'clock P.M., he made repeated and energetic efforts to get into the box. He further showed his preference for it as compared with other roosting-places by returning at six o'clock on the afternoon of February 9 and again at about the same hour on February 10. I continued to see him about the hotel just as often as before, and regularly until such a late hour that he must have had another roosting-place not far away.

At another corner of the hotel piazza, distant, I am told, three hundred and twenty feet from the Hawk's preferred box, is a somewhat similar box. The board here, however, is decidedly narrower and the hole in the bottom is twice as large. On February 16 the condition of the piazza floor showed that the Hawk had passed the previous night in this second box. That evening he went in about six o'clock, while I stood near him. He did not alight on a wire, but made a short halt on the capital of a pillar,—not the corner pillar. He entered the box through the hole in the bottom, instead of through the opening at the side. He immediately took up a crouching position inside, without putting his tail and wings through the hole in the bottom.

How late in the season he continued to roost here I cannot say, for about this time my observations of his habits came to an end.

When well filled, the Kirkwood harbors more than two hundred persons. It stands, with its outbuildings, in an enclosure of a few acres which supports only scattered trees and which is entirely surrounded by a golf links, a polo field and the grounds of a country club. The club-house is within a few yards of the corner of the piazza where the Hawk chose his first roosting-place. It is a much frequented corner. The second corner is scarcely less so.

## Legs and Feet of Birds

By C. WILLIAM BEEBE

Curator of Birds, New York Zoological Park



RED-CRESTED COCKATOO  
Showing two uses of the feet

CARRIED far and wide by the power of flight, no two species of birds have exactly similar environments. Thus we realize the need for many varied adaptations in the way of feet and legs. When the wings cease their labor and are folded close to the side, the bird must depend upon its feet to carry it to its food and to keep it out of danger,—whether its footing be in a tree-top or on a cliff; in shallow water or on the deep; in mud, sand or snow.

Although birds are descended from five-toed ancestors, yet no living bird, and none of those which we know only as fossils, has more than four toes on each foot. The disposition of these toes,—four, three or two, as the case may be,—is always in accordance with the habits of the bird.

The most common type of avian foot is that in which the arrangement

is of three toes in front, with the fourth, corresponding to our great toe, pointing backward. This was the arrangement in the fossil *Archæopteryx*, and for perching birds, as well as for many others with very different habits, it has stood the test of the six millions of years, or thereabouts, since the days of its venerable prototype.

A classification of birds, generally accepted for many years, was based on the uses of the feet, or mode of locomotion. In this scheme birds were divided into the Runners, Scratchers, Climbers, Swimmers, Perchers, etc. Although these exact divisions have long since been abandoned, yet it is worthy of note that even in the most modern classifications many of these groups hold good, although based on other and more fundamental characteristics. Examples of these are the Ostrich-like birds, or Runners; the Fowl-like birds, or Scratchers, and the Passeres, or Perching birds.

From the tiny limbs of a Hummingbird to the gigantic shanks of an Ostrich, the legs of birds, with very few exceptions, are covered with scales,—most emphatic reminders of the reptilian ancestry of both these extreme

forms of feathered life. The real foot of a bird, as the term is used in speaking of the foot of other animals, extends to the backward bending joint, or heel. Part of the lower leg is concealed by the feathers and skin, while the upper leg, or thigh, is generally wholly within the body.

The Crow, in many respects standing near the top of the scale of bird-life, nevertheless has found it good to hold to the typical bird's foot. And indeed it serves him well, for with it he can walk on snow or ice, wade in shallow water, perch in trees, scratch or claw the ground, and hold down a crab shell while he extracts the edible portion. Not only this, but he can hop like a Sparrow or walk like a Chicken at will.

No hard and fast rules can be laid down, but it is generally the case that birds which are especially at home in the trees usually hop with both feet simultaneously on the ground. Ground-nesters and feeders, such as the Meadowlark, Quail and Vesper Sparrow, walk or run.

The great order of perching birds shows to what varied uses the typical foot can be put. All birds of this order have three toes in front and one behind, and there is scarcely a place on the globe to which these birds have not adapted themselves; and recently too, as would seem probable from the similarity of foot-type running through all.

The majority of these birds are arboreal, and the strength of the tiny tendons which run down the leg and through each toe is sufficient to clasp and unclasp a thousand times a day, and to hold and balance the bird on whatever bending twigs or wind-blown foliage it chances to alight.

The Creepers are, so to speak, passerine Woodpeckers, and forever wind their spiral paths about the tree-trunks. But the Nuthatch excels all other birds in his climbing ability. With no support whatever from the tail, and without marked adaptation of toes, it defies all laws of gravitation, and creeps up and down or around the vertical tree-trunks as if on level surface. Never a misstep, never a slip, but each foothold as secure as if its feet were vacuum-cupped.

In the Swallows the feet are very small, having fallen into disuse with the great increase of the power of flight. Orioles and Weaver-birds make occasional use of their feet to hold a strand of grass or string, which they are weaving with their beaks into their elaborate nests, and certain Flycatchers pounce upon and hold their insect prey as an Owl grips a bird, or a Jay clings to a nut; but with the exception of a few such cases, the feet of perching birds serve principally the function of locomotion.

Although the bill is an important organ among the perching birds in procuring food, yet such birds as the Chewink, the White-throated Sparrow and the Jays use their feet to scratch away dead leaves and rubbish in search of small insects.

There are many curious things about a bird's toes, to which we have not yet found the key. Who can tell why the Horned Larks and some other

birds have such elongated claws on their rear toes? Perhaps the fact that these birds live almost entirely on the ground may have something to do with this peculiarity. Any one who has kept a cage of small birds will have learned the fact that the claws of birds are continually growing. In a remarkably short time their claws become long and curved; and in a neglected aviary I have seen birds prisoners on their own perch, unable to untwist their claws from it. When wild birds wear down these claws by constant rubbing, and if given plenty of rough bark and wood in their cages, their claws will remain of normal length.

Some species of swifts have all four toes pointing forward, forming a four-tined grapple by which they hang themselves up in their hollow nesting trees. Whippoorwills have a curious comb, or pecten, along the edge of the middle claw, which is perhaps of use in cleaning the long bristles about their mouths, or in arranging their very delicate, soft plumage. Kingfishers make so little use of their feet, that not only are the toes small and weak, but two of the front ones have grown together for over half their length.

Perhaps the most interesting condition of toe structure is found among Woodpeckers, Parrots, Cuckoos and Owls. In these groups we find a similar plan of general arrangement,—two toes in front and two behind. With few exceptions it is the great, or first toe and the fourth, or outer toe which are reversed. This arrangement is known as yoke-toed, or *zygodactyl*.

We have seen that in perching birds the arrangement is three toes in front and one behind; and now, turning to the Woodpeckers, we are impressed with the wise provision made by Nature for these climbing birds,—their toes spread out so that they point almost to the four points of the compass, thus forming an incomparable grapple or vise, which makes a vertical position as safe for a Woodpecker as a horizontal one for a percher.

Woodpeckers, the world over, have feet and toes which are remarkably alike; but in Canada and the more northern parts of our own country there are two Woodpeckers which are almost unique among the birds of this order in possessing but three toes. For some reason, as yet unknown, their first or great toe, which in all other Woodpeckers points backward, has vanished, leaving no external trace, and the outer toe is reversed to take its place. In such a fashion does Nature occasionally upset our hard-worked-out theories, leaving us confused and baffled before her inexplicable surprises.



FOOT OF CHUCK-WILL'S-WIDOW,  
SHOWING COMB ON TOE-NAIL

Is it not rather disconcerting to find that this same arrangement of toes also holds good for the other orders of birds mentioned above,—the Parrots, Cuckoos and Owls, their toes also all pointing far apart? This is an excel-



OWL GRASPING MEAT

crowded. In fact, the functions of the feet and toes of Parrots approach nearer to those of a human hand than do the limbs of any other order of birds.

The Owls can move their outer toes backward or forward at will, thus being able to assume the arrangement of toes both of a Crow and of a Parrot. However, the yoke, or two and two plan, is the one most commonly seen among these birds. With such an automatic vise-trap ready to descend silently and with deadly swiftness upon him, the little mouse in the grass has indeed need ever to be on the alert. The talons of Owls are curved and under the control of tendons of great strength. Their chief use is to capture living prey and to hold it firmly while it is torn to pieces by the beak.



FOOT OF SNOWY OWL

lent example of what is called parallelism, or the independent development of similar structures.

Parrots use their feet for more different purposes than any other birds—they are the monkeys of the feathered world. They climb wires or branches one step after the other, their beaks taking the place of a third foot in this style of locomotion. They pick up food, such as a banana or a nut, and, holding it in the foot while eating, turn it from side to side, as we revolve an apple in our hand. With their feet they preen their plumage and push each other aside, when too closely

The deserts and plains where the Road-runner dwells are also the home of the Burrowing Owl, which finds in its sharp little talons admirable picks and shovels, —certainly a novel use for yoked-

toes. The feet and toes of birds are, in zero weather, their most vulnerable points, and they are most liable to be frozen. In the black wastes of the frozen boreal regions, the Arctic Owl is able to defy the intense cold, by means of a furry covering of hair-like feathers, which extends to the very claws; even the soles of the feet being thickly covered, so that the skin of the bird is never in contact with the snow and ice on which it roosts.

The Osprey,\* or Fish Hawk, can, like the Owls, reverse its outer toe; but all typical Hawks and Eagles have the perching bird arrangement. The talons of the Osprey are immensely strong, and the scales on the soles of its feet and toes are hardened and roughened to such a degree that they are almost spike-like. A more efficient fish-trap cannot be imagined. The Golden Eagle has a splendid foot, with great curved talons, which, when they have once clasped an object, never let go. Besides capturing their food, birds of prey carry the sticks for their nests in their talons.

When, instead of killing its prey, a species of bird feeds upon carrion, the change in its habits is reflected clearly in the appearance of its feet. Compare the feet of a Vulture with those of one of the true birds of prey. The muscles of the Vulture are weaker, the claws shorter, more blunt, and, what is the most important change of all, the toes have lost their clasping power, while the hind toe is higher, and so small that it is of no use even in perching. Such is the condition of the South American Condor.



FOOT OF GOLDEN EAGLE, FROM LIFE

So exactly correlated are these changes of habit and of feet, that in the Caracara, a Mexican bird of mixed habits,—partly rapacious and partly vulturine,—the toes and claws are correspondingly midway between the two groups of birds. This bird lacks sufficient grasping power to enable it to lift its prey from the ground after the manner of a true Hawk; but it will overcome this difficulty by carrying up the object in its beak, and then reaching forward with its feet, while in full flight, and taking a careful grip with its talons.

Quail, Grouse, Pheasants, Turkeys and all the fowl-like birds are scratchers, according to the old classification, and they well deserve the name; for scratching, first with one foot and then with the other, among the leaves and soft dirt for insects, is a very pronounced habit of them all. The arrangement of toes is the same as in the perching birds, but the claws are

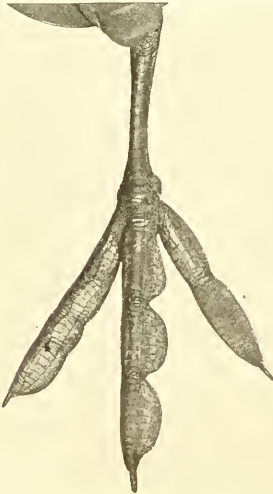
\* See cut in Educational Leaflet beyond.

different. These are true horny-handed sons of the soil, and their claws are stubby, short and blunt. Sharp edges would soon be dulled by scratching, and elongated ones would break. So, with his blunt claws, our Chicken and his family are well provided for.

The most interesting feet among these gallinaceous birds are those of the Grouse. This ruffed drummer of our woods walks about in summer on slender toes over moss and logs; but when soft, deep snows come, his weight would make it difficult to keep from being buried at every step. So Nature provides him with snow-shoes. From each side of each toe there grows out a broad, horny, comb-like fringe, not a web of skin, which might soon freeze, but rows, as of a myriad extra claws. This distributes his weight so that he trots merrily over snow, through which a fox sinks deep and flounders awkwardly at every step.

But what of the Ptarmigan, that snow-white Grouse of the far North, whose home is amid those frigid, barren regions? This bird is more of a walker than is the Snowy Owl, and its feet would surely freeze during the long, long winters, were they bare of feathers. So we find that scarcely a claw is visible beyond the thick covering of feathers over legs, toes and soles.

The pugnacity of the males of this order of birds has become proverbial; almost all are "fighting cocks," and yet their beaks are not fitted for defence or for offence, nor can they clutch and tear with their claws. Therefore we find spurs widely developed on the tarsus, or upper foot, in fowls, Turkeys, Pheasants and Peacocks. These spurs they use in their battles and with remarkable skill. In structure, these outgrowths are identical with the horns of antelopes and cows, consisting of a bony projection over which grows a sheath of horn.

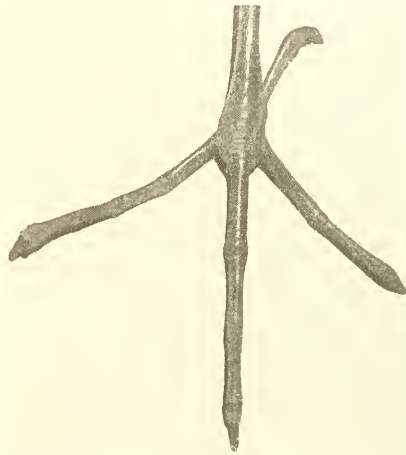


FOOT OF COOT, FROM LIFE

We now come to the water-loving birds, and we find that the varying associations of birds with this element have wrought many interesting changes in their feet and legs. Those birds which are content to wade along the shallow margins of ponds and streams require long legs and long toes, the latter to distribute their weight as they walk over the soft, muddy bottoms. Such, broadly speaking, are the Plovers, Sandpipers and Herons. Let us see how the feet of these birds reflect their habits. With the exception of the tribe of Plovers, almost all have four toes. The Plovers have but three, and these are slender and not webbed; for although they usually feed on aquatic forms of life, yet



their food is gleaned from the upper parts of beaches, or from the sand flats, when the tide is out, and they, therefore, seldom have occasion to swim. The Sandpipers venture into the shallows and are sometimes lifted from their feet by small intruding waves. But the majority even of these birds go through life without webs. One, the Semi-palmated Sandpiper, shows a beginning of a change in the half-webbed condition of the toes, but the group of Phalaropes are actually Sandpipers of the sea. I have seen them in flocks of thousands, resting upon the surface of the ocean, scores of miles from land. Yet, when ashore, they must be as active as other members of their class, in order to find sufficient food; so, instead of being hampered with a confining web, each toe has a series of broad, scalloped lobes, serving admirably as water propellers, and yet allowing the toes freedom of motion when their owner is scurrying over the sand.



FOOT OF GALLINULE, FROM LIFE

I have seen Great Blue Herons almost hip deep in the breakers along the Florida beaches, yet this is not a usual haunt for members of this group of birds. They usually prefer quiet inland waters, where they wade and watch—ever striving to satisfy their insatiable hunger. So, in the case of Herons, webs would be superfluous, length of limb being their only requirement.

On the borderland of the fully webbed aquatic birds we find the Flamingo, combining characters of the Herons and the Ducks. Its haunts are the exposed coral flats of tropical Keys, where at any time a high tide may sweep all, old and young, from their feet. Then it is lucky indeed that the youngsters have webs between their toes, in addition to their long legs.

In the great class of sea-birds and in the Ducks and their allies, the three front toes are joined together by a web of skin, which, when swimming, offers a large area of resistance to the water when the foot is pushed backward.

To the Gannets, Pelicans, Tropic Birds and Cormorants is applied the name Steganopodes; because the toes of these birds are all bound together in a single web. The hind toe points almost in a forward direction when the foot is in action, and to complete its adaptation for a perfect swimming foot, the outer toe is the longest,—a unique condition among birds.

When swimming, these birds not only use the flat side of the leg as a cut-water; but their toes curl and uncurl with a slight oblique revolving motion, like the blades of a propeller. When drawn forward through the water they are rolled up into very small compass, and then instantly spread out as widely as possible on the return stroke. To the eye it seems as if this bird was constantly grasping something tangible in the water and thrusting it behind.



FOOT OF BROWN PELICAN

For many reasons the most interesting of all birds' feet are those of the Ostriches and their allies.

When one trains in college for a long-distance race, the first rule to observe is, — run wholly on the ball of the foot, never touch your heels to the ground. Untold centuries ago, wise old Nature whispered the very same direction to those of her children who had the most need to run for their lives in life's great race, and down through the ages some of them have never broken training. Hence, when an animal acquires great speed in running or leaping, there is a tendency for one toe to become greatly enlarged at the expense of the others, as is seen in the case of the horse, the kangaroo and the Ostrich.

In the horse only the middle toe is functional, the second and fourth having degenerated into the small splint bones at the side of the leg. The kangaroo progresses on the fourth and fifth toes, the second and third being small and skin-bound. The Ostrich has but two toes, one of which, the third, as in the case of the horse, is very large and armed with a thick claw, which grows close to the toe. This toe supports most of the bird's weight, while the fourth, or outer toe, is only one-quarter as large, and, indeed, it bids fair to disappear altogether in the course of time; even now the diminutive nail (when it is present) is only as large as the claw of a chicken.

The power of the Ostrich to defend itself by kicking is well known, but the claw



FEET OF BLACK-FOOTED PENGUIN,  
FROM LIFE

on the large toe is blunt, the ability to inflict injury lying in the terrible force of the blow, rather than in the claw.

Thus in our brief review, we have seen how the feet and legs of birds serve them well in walking, hopping, running, perching, scratching, climbing, burrowing, swimming, diving, in addition to the finding of their food, fighting, preening their feathers, and in countless other ways. The story of the bird's foot has not been half told, but enough has been said to arouse our interest and to put us on the watch for new facts.

## Tame Wild Ducks

By S. J. SPRAY, Salida, Colorado

ONE of the most interesting sights to the tourists of the Rocky Mountain country is the great San Luis Park, a mountain valley lying along the west side of the Sangre-de-Christo Range. It is from twenty-five to fifty miles wide and one hundred miles long, about eight thousand feet elevation above the sea, and as level as an Illinois prairie. The most careless observer is at once impressed with the fact that here, in some past age of the world, must have existed a beautiful mountain lake, which was the home of myriads of water-birds. This region is now one of the justly celebrated grain belts of Colorado, and is dotted over with many flourishing farms. Several small lakes and marshes in the lower places are still frequented by Ducks, Geese, Cranes and other water-birds, in great numbers, especially during the spring and autumn migrations to and from their breeding-grounds, and during their stay here they are slaughtered by the merciless hunters in great numbers.

Here, near the town of Mosea, I was pleased to find a kind-hearted old man by the name of Gray, whose home and artesian well were situated on a much-traveled highway. Mr. Gray had constructed a little lake to impound and store the surplus water from his flowing well. Here I found the greatest surprise of all: hundreds of wild Ducks of various kinds swam in the water, or peacefully preened their feathers on the banks. Occasionally a large flock would take wing, make a wide sweep, perhaps visit a neighboring wheat-field and then return. With Mr. Gray as an attendant, the Ducks showed little fear of strangers, but without him they were suspicious and resented familiarity.

The picture shown herewith is from a photograph taken by my friend, Dr. Newton, and shows a portion of the pond and flock of Ducks.

"How did you do all this, Mr. Gray," I said, "and get on such friendly terms with the most timid of wild birds?" He replied, "By kindness, feeding, and allowing no one on the place with firearms. We started with a nest of Ducks' eggs we found in the marshes, and hatched them out under a

common hen. After these Ducks grew up, one day they joined a flock of their mates, bound for their northern breeding-grounds. In the autumn they returned, with their numbers greatly increased. The Ducks seemed to recognize me, and were glad to get back. I always kept a supply of wheat scattered about the pond for them to feed on. As winter approached, and many flocks were flying south, my Ducks grew somewhat restless and evidently held several protracted mass meetings, to decide on what was best to do. At length quiet prevailed, and the decision seemed to be that it would be very unwise to leave their protector, plenty of good food and an abundance of open water, to take the long, tiresome flight; so they stayed with me all winter, and now remain all the time except during the nesting season. My neighbors, whose grain-fields my Ducks frequently visit, have no great love for them and try to kill them off, but the Ducks are too smart and watchful to suffer much loss."



A WILD DUCK PRESERVE

# For Teachers and Students

## The Migration of Warblers

FIFTEENTH PAPER

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

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

### MYRTLE WARBLER

#### SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Germantown, Pa. . . . .	5	April 27	April 10, 1886
Renovo, Pa. . . . .	5	April 30	April 27, 1902
Southeastern New York . . . . .	11	April 25	April 2, 1890
Central New York . . . . .	12	May 1	April 24, 1891
Northeastern New York . . . . .	8	May 2	April 29, 1890
Portland, Conn. . . . .	6	April 27	March 30, 1903
Hartford, Conn. . . . .	10	April 26	April 8, 1893
Central Massachusetts . . . . .	11	April 28	April 22, 1893
West Groton, Mass. . . . .	7	April 24	April 18, 1897
Framingham, Mass. . . . .	8	April 20	April 17, 1896
Boston, Mass. . . . .	11	April 22	April 13, 1896
St. Johnsbury, Vt. . . . .	5	April 27	April 12, 1903
Southern New Hampshire . . . . .	7	April 23	March 20, 1900
Southern Maine . . . . .	14	April 23	April 19, 1891
Montreal, Can. . . . .	4	May 7	May 3, 1890
Quebec, Can. . . . .	10	May 6	April 30, 1896
St. John, N. B. . . . .	11	April 23	April 15, 1897
Pictou, N. S. . . . .	10	April 30	April 25, 1892
Halifax, N. S. . . . .	4	May 2	April 26, 1896
North River, P. E. I. . . . .	4	April 26	April 24, 1891
<i>Mississippi Valley—</i>			
Chicago, Ill. . . . .	9	April 16	April 6, 1894
Rockford, Ill. . . . .	6	April 15	April 10, 1886
Waterloo, Ind. . . . .	10	April 23	April 11, 1887
Wauseon, Ohio . . . . .	7	April 29	April 16, 1887
Oberlin, Ohio . . . . .	8	April 24	April 12, 1904
Milwaukee, Wis. . . . .	10	April 18	April 6, 1892
Central Wisconsin . . . . .	11	April 19	April 13, 1886
Petersburg, Mich. . . . .	13	April 25	April 17, 1886
Grand Rapids, Mich. . . . .	5	April 16	April 10, 1896
Detroit, Mich. . . . .	13	April 28	April 11, 1891
Southern Ontario . . . . .	13	April 29	April 19, 1897
Parry Sound District, Ont. . . . .	8	May 2	April 29, 1899
Ottawa, Ont. . . . .	15	May 2	April 23, 1889
Keokuk, Iowa . . . . .	10	April 20	April 8, 1888
Iowa City, Iowa . . . . .	7	April 20	April 5, 1888
Grinnell, Iowa . . . . .	5	April 18	April 8, 1889
Lanesboro, Minn. . . . .	9	April 16	April 9, 1889
Elk River, Minn. . . . .	7	April 16	April 10, 1888
Aweme, Manitoba . . . . .	8	April 23	April 21, 1901
Osler, Sask. . . . .			May 4, 1893
Fort Providence, Mackenzie . . . . .			May 14, 1905
Fort Simpson, Mackenzie . . . . .			May 7, 1904
Terry, Mont. . . . .	4	May 6	May 2, 1894
Southern British Columbia . . . . .	3	April 15	April 14, 1889
Kowak River, Alaska . . . . .			May 22, 1899

## FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Aweme, Manitoba . . . . .	3	September 11	September 7, 1902
Lanesboro, Minn. . . . .	7	September 22	September 15, 1887
Grinnell, Iowa . . . . .	4	September 23	September 6, 1885
Southern Wisconsin . . . . .	5	September 25	September 18, 1902
Chicago, Ill. . . . .	6	September 27	September 25, 1899
Detroit, Mich. . . . .	11	September 28	September 16, 1889
Oberlin, Ohio . . . . .	4	September 27	September 2, 1901
Waterloo, Ind. . . . .	4	October 3	October 2, 1891
Central Massachusetts . . . . .	4	September 23	September 13, 1892
Central Connecticut . . . . .	4	October 7	September 20, 1888
Southeastern New York . . . . .	8	October 5	September 29, 1893
Renovo, Pa. . . . .	4	September 26	September 23, 1900
Germantown, Pa. . . . .	6	September 27	September 22, 1888
Washington, D. C. . . . .	3	October 1	September 30, 1890
Tallahassee, Fla. . . . .			October 16, 1904. U

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Nahanni River, Mackenzie . . . . .			October 15, 1903
Aweme, Man. . . . .	6	October 10	October 14, 1900
Lanesboro, Minn. . . . .	7	October 22	October 28, 1887
Keokuk, Iowa . . . . .	4	October 18	October 26, 1897
Detroit, Mich. . . . .	12	October 17	November 19, 1904
Chicago, Ill. . . . .	6	October 23	October 31, 1897
Ottawa, Ont. . . . .	9	October 23	November 3, 1888
Southern Ontario . . . . .	7	October 24	November 8, 1898
Oberlin, Ohio . . . . .	4	October 26	November 2, 1899
North River, P. E. I. . . . .			October 15, 1888
St. John, N. B. . . . .	6	October 23	November 4, 1891
Southern Maine . . . . .	8	October 17	October 24, 1892
Central Massachusetts . . . . .	8	October 19	October 22, 1899
Central Connecticut . . . . .	4	October 26	October 30, 1900
Renovo, Pa. . . . .	5	October 25	October 29, 1900
New Providence, N. J. . . . .	7	October 23	October 29, 1892
Southeastern New York . . . . .	5	November 12	November 20, 1891
Germantown, Pa. . . . .	5	November 9	November 20, 1886



SOME SUGGESTIONS FOR BIRD HOUSES  
 Photographed from models made by W. C. Egan



CALIFORNIA VALLEY PARTRIDGE

From a group in the American Museum of Natural History

## A Brief General Classification

### Of the Songs of Eastern North American Wood Warblers

By GERALD H. THAYER, Monadnock, N. H.

(Those asterisked I know from descriptions only)

I. *Song rambling and desultory, without fixed form*: One—Yellow-breasted Chat.

II. *Song a comparatively short, more or less continuous strain, with definite beginning and end*: Forty-four—All but the Chat.

I. *Full-voiced Warblers*: Twenty-eight—Prothonotary, Swainson's\*, Nashville, Orange-crowned\*(?), Yellow, Black-throated Blue, Yellow-rump, Black-and-Yellow, Chestnut-side, Yellow-throated, Sycamore\*, Black-throated Green, Kirtland's\*(?), Pine; Ovenbird, Northern Water-thrush, Louisiana Water-thrush; Kentucky, Connecticut\*, Mourning; Maryland, Florida and Northern Yellow-throats; Yellow-breasted Chat; Hooded, Wilson's, Canada; American Redstart.

II. *Weak-voiced, or 'thin'-voiced Warblers*: Twelve—Black-and-White, Bachman's\*, Blue-winged (Brewster's\* and Lawrence's\*), Golden-winged\*, Parula and Northern Parula, Cape May, Bay-breast, Black-poll, Blackburnian, Palm, Prairie.

III. *Warblers with voice between full and thin*: Four—Worm-eating, Tennessee, Cerulean (much though this Warbler's singing resembles the Parula's, it is noticeably louder, sometimes at least), Yellow Palm.

I. *Full-voiced Warblers whose song-tones are smooth and clear*: Twenty-five—Prothonotary, Swainson's\*, Nashville, Orange-crowned\*(?), Yellow, Yellow-rump, Black-and-Yellow, Chestnut-side, Yellow-throated, Sycamore\*, Pine; Ovenbird, Northern Water-thrush; Kentucky, Connecticut\*, Mourning; all three Yellow-throats; Chat; Hooded, Wilson's, Canada; American Redstart (in part).

II. *Full-voiced Warblers whose song-tones have a pronounced 'beadiness'*: Three—Black-throated Blue, Black-throated Green, American Redstart (in part).

III. *Weak-voiced (and intermediate) Warblers whose song-tones are smooth and clear, or nearly so*: Eight—Black-and-White, Worm-eating, Cape May, Bay-breast, Black-poll, Blackburnian, Palm, Yellow Palm.

IV. *Weak-voiced (and intermediate) Warblers whose song-tones have a pronounced 'beadiness'*: Eight—Bachman's\*(?), Blue-winged, Golden-winged\*, Tennessee(?), Parula and Northern Parula, Cerulean, Prairie.

I. *Warblers with perhaps only one main song*: Twenty-one—Prothonotary(?), Swainson's\*(?), Worm-eating, Bachman's\*(?), Golden-winged\*(?), Orange-crowned\*(?), Tennessee(?), Cerulean, Black-poll,



Yellow-throated, Sycamore\* (?), Pine, Prairie, Kentucky, Mourning, all three Yellow-throats; Hooded, Wilson's, Canada.

II. *Warblers with at least two main songs*: Fifteen—Black-and-White, Nashville, Cape May, Yellow, Yellow-rump, Black-and-Yellow, Chestnut-side, Bay-breast, Blackburnian, Black-throated Green (Palm ?), Yellow Palm, Ovenbird, Northern Water-Thrush, Louisiana Water-Thrush, Connecticut\*.

III. *Warblers with at least three main songs*: Three—Blue-winged, (Parula ?), Northern Parula, American Redstart.

IV. *With at least four main songs*: One—Black-throated Blue.

V. *Warblers with flight-songs*: Ten—Nashville, Ovenbird, Northern Water-thrush, Louisiana Water-thrush, Mourning, all three Yellow-throats, Yellow-breasted Chat, Wilson's\*. (It is notable that these are all birds of the ground and low growth. Tree-top Warblers are more versatile perch-singers, on the whole, but few or none of them have flight-songs. Living high above the ground, they lack, it seems, the common impulse to 'tower' skyward, by which so many ground-birds,—Larks, Pipits, Sparrows, Warblers, etc.,—are at times possessed).

VI. *Warblers whose usual song is a trill, or barely more than a trill*: Five—Worm-eating, Yellow-rump, Pine, Palm, Yellow Palm.

VII. *Warblers with very loud songs*: Twelve—Prothonotary, Swainson's\*, Yellow-rump (?), Yellow-throated, Sycamore\*, Ovenbird, Northern Water-thrush, Louisiana Water-thrush; Kentucky, Connecticut\*, Mourning; Yellow-breasted Chat. (These too,—with others of nearly as high rank, like the Hooded, the Canada, and the Yellow-throats,—are mostly haunters of the ground and bushes. The tree Warblers excel them in variety of song-forms, but average weak-voiced).

VIII. *Warblers whose songs are very clearly enunciated throughout, or have certain syllables strongly emphasized*: Twenty-six—Prothonotary, Swainson's\* (?), Blue-winged (in part), Golden-winged\*, Yellow, Black-throated Blue, Black-and-Yellow, Chestnut-side, Blackburnian (in part), Yellow-throated, Sycamore\* (?), Black-throated Green, Prairie; Ovenbird, both Water-thrushes (though their songs are almost too hurried to belong under this head), Kentucky, Connecticut\*, Mourning, all three Yellow-throats, Yellow-breasted Chat; Hooded, Canada; American Redstart.

IX. *Warblers whose songs are comparatively inarticulate*: Nineteen—Black-and-White, Worm-eating, Bachman's\* (?), Blue-winged (in part), Nashville, Orange-crowned\*(?), Tennessee, Parula, Northern Parula, Cape May, Yellow-rump, Cerulean, Bay-breast, Black-poll, Blackburnian (in part), Pine, Palm, Yellow Palm, Wilson's.

# Notes from Field and Study

## Our Robin's Nest

The nest shown in the accompanying illustration was found by a member of the Pine Hills Junior Audubon Club of Albany, N. Y. It was built in a crotch of a young elm tree about fifteen feet from the street. In essential character it is not unlike an ordinary Robin's nest; but apparently this particular pair of Robins had an eye for beauty, for hanging from one side of the nest, about three inches apart, are two fringed white satin badges, fastened by mud and sticks. They bear the seal of New York and the words, "New York N. E. A. at Boston, 1903." The satin is as white and letters as fresh and new as if they had not adorned a Robin's nest for a whole summer. We have found that these badges were worn at a national educational convention held at Boston.

A little to the left of one of these badges, near the rim of the nest, is a knot of coarse white lace, not merely woven over and under the grass, but artistically coiled about the outside and securely fastened with mud and tiny sticks. Through this lace, woven in and out through its coarse mesh as neatly as any human being could do it, are two white chicken feathers.

The rest of this remarkable nest is decorated with long pieces of string; white string, brown string and yellow string, a piece of light blue embroidery silk, the hem of a fine handkerchief and a bit of white satin ribbon. Even the arrangement of the string shows artistic work, for it is woven and knotted-looped and coiled into an intricate pattern.

Turned upside down, the nest gives one the impression of a bonnet with satin strings



AN UNUSUAL ROBIN'S NEST

and trimmed with a little knot of white lace and two white quills. A truly wonderful nest! For what purpose were the badges and lace and feathers so carefully arranged if not for mere decoration? Surely those two Robins must have possessed thought and taste to build such a home as this!

And yet there are many good people who declare that birds do not think at all—that they act and live merely by instinct!—KATHARINE S. PARSONS, *Secretary, Albany, N. Y.*

[While the builders of the nest here figured assuredly employed unusual material, we cannot but fear that our correspondent has attributed to these Robins her own standard of beauty.—ED.]

#### Bird Notes from a Florida Porch

It was the writer's good fortune to spend the greater part of the month of March, 1904, at a cottage in Gulf Hammock, Levy county, Florida. When not off collecting natural history specimens or fishing, the greater part of my time was spent on the front porch, watching the numerous species of birds that came near the house. No shooting was allowed in the immediate vicinity of the house, which may partly account for the tameness of many of the birds observed. At least one-half of the species of birds mentioned in the accompanying list were noticed within twenty feet or less of the house, and all were observed from the front porch. The Mocking-bird and the Blue Jay were a study by themselves, the former always singing until one of the latter would approach too near, and then it was a case of scolding and fighting, accompanied by a fluttering of wings, the Blue Jay generally retiring, leaving the Mocking-bird in peace. Twenty-odd years ago the Carolina Paroquet was quite common in this neighborhood, and the same can be said of the Ivory-billed Woodpecker, but none of the former have been seen for twenty-odd years, while the latter is growing scarcer with each passing year. The following list of birds is appended with the hope that those who are confined to a porch will see that at times there is plenty of bird-life to be seen without going miles away from the house—if one will only keep

his eyes open. Following is a list of the birds observed during my four weeks' stay in this interesting part of Florida: Quail, Mourning Dove, Ground Dove, Turkey Vulture, Red-shouldered Hawk, Pileated Woodpecker, Red-bellied Woodpecker, Flicker, Humming-bird, Phoebe, Blue Jay, Common Crow, Meadowlark, American Goldfinch, Grasshopper Sparrow, Chipping Sparrow, Cardinal, Towhee, Purple Martin, Parula Warbler, Palm Warbler, Mocking-bird, Brown Thrasher, Carolina Wren, Tufted Titmouse, American Robin. Of the twenty-six species of birds here enumerated, all were more or less common excepting the Humming-bird, Carolina Wren and the Red-shouldered Hawk. Two or three species of Warblers, as well as a species of Flycatcher, were seen, but from my position on the porch I could not identify them with a certainty.—PHILIP LAURENT\*, *Philadelphia, Pa.*

\*For a list of birds seen by the writer during two short trips made to Gulf Hammock in the years 1886-87, see *Ornithologist and Oölogist*, Vol. 12, pp. 157-159.

#### Shoot the Evictor

In your May-June, 1905, issue of *BIRD-LORE*, Lieutenant Bennett writes an interesting article. Among other things he gives his experience and failure in trying to drive the pugnacious, abominable English Sparrow from his Wren-boxes. He desires to hear further from your correspondent in January and February number of 1905 as to his success in using a gun. I take it, however, that a word of experience from any one on this point will be acceptable as "in the mouth of two or three witnesses shall every word be established." Last spring I put up, in two trees near our house, two nest-boxes made from hollow sticks, say six inches in diameter. The Wren-box had an open door a scant inch in diameter; the other box, for Bluebirds, perhaps one and three-quarters inches. Neither of them had "To Let" cards on, yet prospective tenants began to arrive almost as soon as the boxes were hung in position. The Wren-house door being too small to admit Sparrows, the Wrens had a pretty good time for a day or two, until they decided to take the house and began to move

in. Then Mr. and Mrs. Sparrow perched themselves on the cage and began skirmishing whenever the Wren came with a stick. They also sat by the half-dozen, on and about the Bluebird's box, squawking and charging on them frequently. At this point I decided to carry the war into Africa, and purchased a 22-caliber rifle and some fine shot cartridges. Thus equipped, I watched my opportunity, and whenever I saw a Sparrow perched aloft or on the step at either door I fired to kill, and usually succeeded. I shot as often as possible when the other birds were absent, but killed Sparrows often when the Wrens looked on and seemed to twitter a song of rejoicing at the downfall of the enemy. Both Bluebirds and Wrens raised their broods in comparative peace with my aid and the good offices of the little gun.

I must now record something (regretfully) against our dear little, cunning, happy Wren. I never could have believed it if I had not seen it. After the Bluebirds hatched and reared their six or seven little bluets, and they had gone to care for themselves, I thoroughly cleaned their house, and puffed insect powder into it. The old birds soon returned, rebuilt their nest and laid their eggs. One afternoon, as my wife sat on the rear piazza, some fifteen feet from the little English walnut tree in which the nest hung, she heard such a chattering about the box as to attract her attention and, looking, she beheld a Wren with a shell of a Bluebird's egg in its beak and another in a great glee over the wreck. She called me, and I went to the rescue, but too late, for in the few minutes they had demolished every egg. The Bluebirds returned, examined the wreck and pilage, mourned about the box, going in and out, looking suspiciously at us, then left in seeming disgust and did not again return or attempt to rebuild. Notwithstanding all my shooting about the lot (a town lot), six kinds of birds besides the English Sparrow nested and reared their young on the premises, much to our delight. In addition to these, a Downy Woodpecker, attracted by suet kept tied in a cherry tree near the kitchen window for his benefit in winter, pecked a hole for a winter home in the limb of a tree near the front piazza where the Wren-box was located and

where I shot most of the Sparrows. However, after the hard and tedious work of the Downy in the completing of a winter home, it was driven from it by the beastly Sparrow. Shoot him!—J. C. ALLEN, *Hacketts-town, N. J.*

### A Tragedy

Walking back into the unfrequented part of the Glen one lovely autumn afternoon, I saw a large Hawk rise from the ground, and as the tail caught the sunlight, it was revealed as a Red-tailed—the comparatively leisurely flight seeming more surely to fix the identity.

It was so unusual to see *Buteo borealis* thus rise from the ground that my suspicions were at once aroused, nor were they quieted when I saw the ground strewn with feathers. The natural conclusion was that a Plymouth Rock had met an untimely end, but curiosity led me closer. To my amazement, the victim proved to be another Hawk, and an immature Red-tailed. The poor thing was still quite warm and limp, but the belly was ripped open by the murderous beak of the adversary and partly eaten. There had been a battle royal, for one wing was torn off and lay several feet distant. The toe of one foot was injured and bent about the adjacent one. It lay there a mute picture of vanquished greatness. A fine, majestic fellow it had been, and the upper breast with the delicately marked feathers still looked soft and vital. I tried to pull some of the tail-feathers, but they were too firmly grown. Fancy the terrific wrench required to sever the wing! It was too badly torn to make a good skin. The victorious Hawk loitered about, loath to give up its quarry, then finally flew quietly away.

It was, to me, most surprising and horrible that a mature Hawk (and a *Buteo* not an *Accipiter*) should fight to the death and eat an immature bird of the same species. We do not expect Hawks to be altogether above reproach in their conduct toward feathered creatures, but that this Hawk of good repute should be caught in the act of avian homicide, as it were, seems most revolting.—LUCY V. BAXTER COFFIN, *Richmond, Ind.*

## Book News and Reviews

CASSINIA: PROCEEDINGS OF THE DELAWARE VALLEY ORNITHOLOGICAL CLUB, NO. IX, 1905.

The opening article in 'Cassinia' is a sketch, by Spencer Trotter, of Charles Lucien Bonaparte, illustrated by a half-tone of the distinguished French ornithologist. Both Audubon and Wilson "were poet and artist rather than scientist. It was Bonaparte who first placed American ornithology on the firm basis of science."

The summer birds of three of the counties of Pennsylvania—two in the north-eastern corner and one on the southern border of the state—are treated by as many writers. In Monroe county Cornelius Weygandt found a number of species belonging to the Canadian fauna and a few of the Carolinian. The colonies of Cliff Swallows were of interest; fifty-one nests were found on a single barn. E. Seymour Woodruff also records a mixture of Canadian and Carolinian birds from Milford, Pike county. The Myrtle Warbler was noted there as early as August 20.

Of interest in the account of the June bird-life of Fulton county, by Witmer Stone, are the notes on the Wild Turkey, Red-bellied Woodpecker, Bewick's Wren, Blackburnian Warbler, and especially the Prairie Horned Lark; this being, as Mr. Stone believes, the southernmost summer record of this bird east of the Alleghanies.

An interesting article by R. F. Miller tells of the breeding of the Florida Gallinule within the city limits of Philadelphia.

Two Purple Grackle roosts in the vicinity of Philadelphia are described by Sanford Omensetter and C. J. Peck, respectively. In September and October as many as 50,000 to 75,000 birds, it is estimated, visit the Overbrook Roost every night. Here, as in other localities, many Robins roost with the Grackles, but no Red-winged Blackbirds have been observed in their company.

From the records of sixty observers, Mr. Stone has compiled a report on the spring

migration of 1905 in New Jersey and eastern Pennsylvania, the dates of arrivals at seventeen stations in the vicinity of Philadelphia being given in tabular form. The abstract of the proceedings of the Delaware Valley Ornithological Club for 1905, the Bibliography and 'Bird Club Notes' close this interesting number.—W. DEW. M.

WISCONSIN BIRD STUDY BULLETIN, 1906. Issued by C. P. CARY, State Superintendent. Prepared by Mr. and Mrs. I. N. MITCHELL. Edited by MAUD BARNETT.

The Department of Public Instruction of the State of Wisconsin continues to show its active interest in bird study by issuing this attractive pamphlet. It treats of eleven common birds at some length, and gives colored plates of ten of them.—F. M. C.

### Book News

MR. A. H. ESTABROOK, of Clark University, has inaugurated an inquiry into the present status of the English or House Sparrow, and asks us to publish the following questions. All information should be sent directly to Mr. Estabrook:

"Circular of inquiry with reference to the present status of the English Sparrow problem in America.

"1. Are you familiar with Bulletin No. 1, 'The English Sparrow in America,' published by the Agricultural Department in 1889; and do you agree with the facts there presented, and with its conclusions?

"2. Is the English Sparrow present in your locality? How numerous? Are they increasing or decreasing in numbers?

"3. What is being done to exterminate them? Please outline methods which you deem effective.

"4. What influence have you observed the English Sparrow to have upon native birds?

"5. Would public opinion in your locality favor the adoption of effective measures to exterminate this species?

"6. Please state the facts and arguments, pro or con, which decide this problem in your own mind.

"Everybody interested is requested to send in replies to the above questions before June 1, if possible, to the undersigned. It is proposed to gather a consensus of opinion from all parts of this country and Canada. The data will be made public as soon as possible. (Signed) A. H. ESTABROOK,  
March 5, 1906. Clark University, Worcester, Mass.

MR. C. J. MAYNARD, of West Newton, Mass., announces the publication, in ten parts, two of which will be issued each month, of a 'Directory of Birds of Eastern North America.' Mr. Maynard remarks, in the recently issued prospectus of this work:

"Of late years many books have been written with a view of aiding those who are beginning the study of birds. While some of these books are by trained ornithologists, hence accurate and helpful to students, many others have been written by amateurs, who are sometimes themselves mere tyros, hence more or less inaccurate. Some of these last-mentioned books are evidently compilations in which we find subtle truths and obvious errors strangely mingled. In others, the authors give condensed descriptions, at times with success, but we often note errors of commission and omission. In other words, the authors, through lack of a thorough knowledge of their subject, have, in many cases, mistaken individual peculiarities and unusual plumages for specific characters, and in other cases have given unimportant characters in place of those which are important and which should have been given.

"It is unfortunate that the work of compilation and abridgement in ornithology has so often fallen into the hands of incompetent amateurs, when both should be done, to be done successfully (as any one can see upon reflection), by experienced experts, but who, as a rule, avoid work of this kind."

THE report of the Chief of the Bureau of Biological Survey for the year ending

June 30, 1905, reflects the increasing importance and widening scope of the activities of this Bureau. The work of the year is summarized under "(1) investigations relating to the geographic distribution of animals and plants, including biological surveys and the determination of the life and crop belt, in charge of the chief; (2) investigations of the economic relations of birds to agriculture, in charge of Prof. F. E. L. Beal; (3) investigations of the economic relations of mammals to agriculture, in charge of Prof. D. E. Lantz; (4) supervision of matters relating to game preservation and protection and the importation of foreign birds and animals, in charge of Dr. T. S. Palmer."

A REPORT on the 'Ornithological Results of the Scottish National Antarctic Expedition,' by Wm. Eagle Clarke (*The Ibis*, Part I, 1905, 247-268; *The Ibis*, Part II, 1906, 145-187) contains biographical matter of the first importance and is illustrated with some of the best photographs of Antarctic birds we have ever seen.

WILSON'S PETREL was found nesting "in thousands" on Laurie Island. This bird "did not appear until late in the fall, namely, on November 11." The first egg was taken December 11.

MR. HERBERT K. JOB, so well known for his admirable photographic studies of birds, is engaged in preparing a book on the birds of Litchfield county, Connecticut, and requests the coöperation of all who are interested. Mr. Job's address is Kent, Conn.

MR. A. HYATT VERRILL issues, without place of publication, an unpagged, undated pamphlet entitled, 'Addition to the Avifauna of Dominica. Notes on species hitherto unrecorded, with descriptions of three new species and a list of all birds now known to occur on the Island.' One of the new species is described as *Setophaga ruticilla tropica*, Tropical Redstart. It is apparently based on highly colored specimens of our American Redstart.

# 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

Vol. VIII Published April 1, 1906 No. 2

## SUBSCRIPTION RATES

Price in the United States, Canada and Mexico  
twenty cents a number, one dollar a year, post-  
age paid.

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Bird-Lore's Motto:

*A Bird in the Bush is Worth Two in the Hand*

IN this issue of BIRD-LORE we had hoped to announce the publication of the Warbler Book, to which so many of BIRD-LORE's readers have made valuable contributions. Circumstances beyond our control have, however, denied us this pleasure, but at least we have the satisfaction of feeling that the enforced delay in the publication of the book will react advantageously on both its contents and appearance.

WE have long had in mind an organization within the Audubon Societies which should conduct courses in ornithology on lines somewhat similar to those so successfully employed by the Chautauqua Association. An important and attractive feature of this plan would be the establishment of summer camps at favorable places where, under competent leadership, local and general ornithology, bird photography, etc., could be studied to advantage.

We still hope that some day this plan may become more than an idea, but in the meantime its summer assembly side is developing independently at various places throughout the country in connection with biological laboratories, summer schools and camps. Some of these it has been our privilege to visit, but among them all we do not recall one more delightfully situated than Camp Agassiz, near Lake Tahoe, in the Sierras. The bird-life of this region varies as widely as the character of its topography. On the snow-covered, treeless mountain-tops are *Leucostictes*; in the magnificent coniferous

forests, Pine and Evening Grosbeaks, Solitaires, Clarke's Crows, Sierra Grouse and Hermit Warblers; in the broad marshes bordering Tahoe, water-birds of various species.

Although it has little apparent bearing in the bird-life of the place, we confess to so delightful a recollection of a certain cold, clear, bubbling mineral spring near Camp Agassiz that we are quite sure some mention of it should be made.

Camp Agassiz is in charge of Mr. W. W. Price, of Alta, and Mr. W. K. Fisher, of Palo Alto, Cal., both well-known Pacific coast ornithologists.

IN BIRD-LORE for December, two plans for ornithological work were proposed. One related to BIRD-LORE's Annual Christmas Bird Census, the other to a thorough study of the life-history of some one species of bird. The first was to be based on the result of a day's outing, the second on prolonged, serious study. Nearly one hundred observers responded to the first call, but to the second we have had but one reply, Mr. Gilbert H. Trafton of Passaic, N. J., having written us that he has selected the American Goldfinch as a subject for monographic study.

WHILE we confess a sense of disappointment that among the thousands of BIRD-LORE readers only one has announced his intentions of definitely devoting himself to a given subject, we realize that comparatively few people are so situated that they can take up a study of this kind. Nor is it necessary that every bird lover become an ornithologist.

Your real investigating naturalist realizes so fully the pleasures of original research that he is apt to think that every one who is interested at all should attack the subject in his own business-like, determined manner.

To by far the greater number of people the study of birds is a delightful recreation, to which they can turn for rest from the pressing problems of existence, and it is not to be expected that their attitude toward the bird will be that of the professional student.

# The Audubon Societies

*"You cannot with a scalpel find the poet's soul,  
Nor yet the wild bird's song."*

Edited by MRS. MABEL OSGOOD WRIGHT and WILLIAM DUTCHER

Communications relating to the work of the Audubon and other Bird Protective Societies should be addressed to Mrs. Wright, at Fairfield, Conn. Reports, etc., designed for this department, should be sent at least one month prior to the date of publication.

## The Millinery Trade Organ

It is interesting to read the editorials in 'The Millinery Trade Review,' as they undoubtedly voice the feelings of the millinery trade toward the Audubon movement.

An editorial, 'The Audubon Society Against the Fancy Feather Trade' says: "There can no longer be any doubt that one of the principal aims of the Audubon Society and its kindred organizations is to completely wipe out the sale of fancy feathers of all kinds. As the Audubon Society has taken such extreme grounds on the subject of wearing fancy feathers, there is no other alternative but for the importer and manufacturer to take up the gauntlet and meet these people in a battle royal; in other words, to fight the devil with fire—organization with organization." This is a fair proposition; now let the people be the judges and say whom they will support, the Audubon Societies that are trying to preserve the wild birds of America, or a fashion that decrees the death of birds to the verge of extinction of species.

An editorial in the same publication entitled 'To Fight the Aigrette Law' says, "The merchants of New Orleans are the first to take up the pamphlet of Audubon and test the constitutionality of the Louisiana law passed by its Legislature last year, forbidding the selling of aigrette plumage." After reviewing the brief of the attorney for the milliners, the editorial continues, "It is seriously to be hoped that there will be no let-up in this contest on the part of the New Orleans merchants, and that the case will be carried to the court of last resort in order that the commercial world may know what rights it has in the possession of merchandise bought in foreign countries, and which has been regularly passed through the cus-

tom-house, and on which the duty exacted by the government has been duly paid. Every woman and girl, not only in Louisiana, but in the United States, is interested in this case, as upon it rests their rights to determine what they shall be permitted to buy abroad and wear on their return to their homes in America."—W. D.

## In the Courts—An Important Decision.

In the last annual report (p. 309) under the head 'Aigrettes,' reference was made to an important suit that was in the New York Courts. Since then, the Court of Appeals has handed down a decision that will have such a far-reaching effect on bird and game protection in this country, that it is thought best to give a brief outline of the suit and some extracts from the decision which was written by Chief Justice Cullen and was concurred in by the full bench. The decision is notable from the fact that there was no dissenting opinion, which is an unusual occurrence.

John Hill, a hotel-keeper, and August Silz, a game-dealer, were arrested for violation of the game-law. The Special Term upheld the arrest, but, on appeal to the Appellate Division, the Special Term was reversed and the relators were discharged from custody. The two cases were then taken to the Court of Appeals. "The affidavit avers that on the 3d day of March John Hill did have in his possession one dead body of a bird known as a Golden Plover, and one dead body of a fowl commonly called a Grouse; that, as the affiant was informed and believed, the said Plover and Grouse were taken without the state of New York, to wit, from England and Russia, and thence brought into the Borough of Brooklyn. The game-law enacts that



Grouse shall not be taken or possessed from January 1st to October 31st, nor Plover from January 1st to July 15th. By Section 141 of the statute, the inhibition enacted by the other sections of the statute are made to apply to fish, game or flesh coming from without the state as well as to that taken within the state."

"We shall not discuss at any length the claim of the relator that the statute contravenes the constitution of this state as depriving the relator of his property without due process of law. That question has been settled adversely to that claim by the decision of this Court in *Phelps vs. Racey* (60 N. Y. 10) and *People vs. Bootman* (180 N. Y. 1), in which it was held within the power of the legislature, in order to effect the preservation of game within the state, to enact not only a close season during which the possession of such game should be unlawful, but further to enact that the possession in the state, during such season, of game taken without the state should be equally unlawful."

"To the argument that the exclusion of foreign game in no way tends to the preservation of domestic game, it is sufficient to say that, substantially, the uniform belief of legislature and people is to the contrary, and that both in England and many of the states in this country, legislation prohibiting the possession of foreign game during the close season has been upheld as being necessary to the protection of domestic game. The Act of Congress, passed May 25, 1900, commonly termed the 'Lacey Act,' empowered the state to enact the legislation before us (Sec. 141)."

"That Congress can authorize an exercise of the police power by a state, which, without such authority, would be an unconstitutional interference with commerce, has been expressly decided by the Supreme Court of the United States in *Matter of Rahrer* (140 U.S. 545). The question before us is merely the interpretation of the Lacey Act which the learned counsel for the respondents contend applies solely to interstate shipments and not to importations from foreign countries. The Act is entitled: 'An Act to enlarge the powers of the Department of

Agriculture, prohibit the transportation by interstate commerce of game killed in violation of local laws, and for other purposes.'

"The fifth section deals with the transportation into any state of animals killed without the state. It is as follows: 'That all dead bodies, or parts thereof, of any foreign game animals, or game- or song-birds, the importation of which is prohibited, or the dead bodies, or parts thereof, of any wild game animals, or game- or song-birds transported into any state or territory, or remaining therein for use, consumption, sale or storage therein, shall upon arrival in such state or territory be subject to the operation and effect of the laws of such state or territory enacted in the exercise of its police powers, to the same extent and in the same manner as though such animals or birds had been produced in such state or territory, and shall not be exempt therefrom by reason of being introduced therein in original packages or otherwise. This act shall not prevent the importation, transportation, or sale of birds or bird plumage, manufactured from feathers of barn-yard fowl.'

"It is contended that the title of the statute tends to show that the operation of Section 5 is confined to shipment from other states, and not to importation from foreign countries. If the title of an act could limit its effect, which it cannot (*Potter's 'Dwarris on Statutes,'* p. 102), still this claim is without foundation. The fifth section, which is the one before us, deals with an entirely different matter,—transportation into a state, not out of a state,—and is embraced in the title of the statute only under the designation 'and for other purposes.' As to this subject, therefore, the title in no respect tends to limit the effect of the act. It is difficult to see any reason why Congress should have sought to discriminate between bodies of game, song-birds or wild animals brought into a state from other states and those brought from foreign countries. The object of the legislation was to enable the states, by their local law, to exercise a power over the subject of the preservation of game- and song-birds, which without that legislation they could not exert."

"Every consideration that led Congress to

think it wise to confer on the state of New York, as well as on other states, a power (which is practically that of prohibition during the close season, at least for the purpose of sale) over the importation of partridges from New Jersey, Pennsylvania or Connecticut, is equally applicable to the importation of such birds from Canada. The obstacle to the successful enforcement of the game-law of the state would be as great in the one case as in the other; and, as Canada borders on the United States for a distance of three thousand miles, the practical danger would be as great in the one case as in the other, whatever it might be in the case of an importation from Europe. But it is said that Congress permits the importation of foreign game and collects duty thereon, and it cannot have intended to allow property thus imported to be confiscated. The proposition that Congress allows the importation of foreign game is true only in a restricted sense. By the 'Lacey Act' Congress determined to aid the states in the enforcement of their game-laws, but did not deem it wise to enact a game-law of its own, and this for the very obvious reason that the game-laws of the different states vary greatly, a variation justified in no small degree by varying climatic conditions. It would be unwise to prohibit entirely the importation of game into the country during a part of the year, when in some of the states the taking and consumption of such game is lawful. So it is said practically to the citizen: We do not prohibit the importation of foreign game, but subject it to the local laws, and you must see to it, at your risk, that you do not violate those laws. The term 'transported' is used in the Wilson Act of Congress relative to intoxicating liquors (enacted August 8, 1890) as in the present act. Yet, it seems incredible that Congress intended to suffer the state of Maine to seize liquor in original packages when brought from Massachusetts but not when brought from Canada or Europe. The words of the section before us are sufficiently comprehensive to include all game brought into the state from whatever place, and we do not think it profitable to enter into a verbal analysis, save in

one respect. It is urged that the concluding sentence of the section, 'This act shall not prevent the importation, transportation or sale of birds or bird plumage manufactured from the feathers of barn-yard fowl' excludes all birds from its operation. We think not. The qualification 'manufactured from feathers of the barn-yard fowl' applies as well to birds as to bird plumage. Birds mentioned in this sentence are plainly artificial birds, and so the Treasury Department of the United States has ruled. The case of Silz is somewhat different. Substantially all the questions raised by the affidavit, save one, are disposed of by the view we have already expressed. The exception is the statement in the affidavit 'that said imported Golden Plover and imported Grouse are different varieties of game-birds from the game-birds known as Plover and Grouse in the state of New York and from any birds native to America.' They are different in form, shape, size, color and marking from the game-birds known as the Plover and Grouse in the state of New York."

"Of course, if the birds, the possession of which is charged against the relator, are not Grouse or birds of the Grouse family, then no crime is stated in the affidavit, and the relator should be discharged. But in view of the express allegation at the commencement of the affidavit that the defendant was possessed of one imported Grouse, we are inclined to the view that the statement quoted should be construed as meaning not that the bird so possessed was not a Grouse, but that it was a different variety of Grouse from that which is native to the state of New York. So construed this fact constitutes no defense, nor does the allegation that they are different in form, shape and color from native birds. It was for the legislature to determine, in the protection of native game, how far it was necessary or wise to include within the penal provisions of the statutes birds of the same family and of a similar character, though differing in some respects. Of course, this statement is made within limits. To protect Pigeons, Turkeys could not be excluded. In the present case, however, we are clear that the legislature has acted within its power."

Under this decision it is very evident that it is unlawful in the state of New York to sell or have in possession the plumage of Herons, sold under the trade name of 'Aigrettes.'—W. D.

### An Important Meeting

One of the most important gatherings of men engaged in the protection of birds and game which has taken place in recent times was the National Meeting of State Game Wardens and Commissioners at St. Paul, Minn., January 25, 26 and 27. Here for three days the heads of game-protective departments from thirteen states and the Yellowstone National Park discussed questions which are so vital to the perpetuation of our American wild bird and animal life. The selection and employing of game-wardens, the best means of raising revenue, the non-shipment of game, the non-sale of game, bag limits, and prosecution of violations of the game- and bird-laws were some of the various subjects which claimed their attention. It was a convention, a conference, a congress of chieftains which here assembled for a time to sit and smoke in council by the Father of Waters. The good of such a meeting can hardly be overestimated. Men learned here that their problems were, in many cases, the problems of others, or that their long-cherished plans had been tried and were operating successfully elsewhere, or caught inspiration from the ideas of others.

For many years those engaged in the work of the Audubon Society have been proceeding along similar paths and in many cases going hand in hand with this force of men. The secretary of the National Association was, therefore, pleased to accept the invitation extended him to address this body on 'The Work of the Audubon Society.'

The subject was treated in considerable detail, with the result that many of the state wardens and commissioners expressed great interest in the work of the Audubon Society, and declared their intention of purchasing large quantities of the leaflets relating to the economic value of birds which are issued by the National Association, for the purpose of giving these leaflets a wide

distribution in their states.—T. GILBERT PEARSON.

### A Suggestion to Woman's Clubs

An excellent method of showing an interest in bird protection, one which ought to be followed by every Woman's Club in the country, was given by the New Century Club of Utica, New York, when they forwarded \$11 as a contribution to the work of the National Association. This made the club a sustaining member of the National Association of Audubon Societies, with dues paid for two years. Thirty of the members of the club pledged themselves "to refrain, for one year, from the use of feathers for ornament, whether feathers of domestic fowls or of other birds, except Ostrich feathers; being especially moved to this action by the murder of Guy M. Bradley, warden in Florida, who was killed while engaged in his duty of protecting the birds under his care."

'The Woman's Clubs stand for improvement. Can the forty-five hundred clubs in the General Federation, with their quarter million members, achieve any greater world benefit than to forbear to use aigrettes? If the National Federation Officers will decree that the use of aigrettes is forbidden because of the cruelty necessary to obtain them, the influence will be felt in all parts of the world.—W. D.

### Good Work in Mexico

The following letter (translation) shows that the cause of bird protection is receiving attention elsewhere, and eventually will result in a great international society.

"It now gives me pleasure to advise you of the receipt of your favor dated the 31st of last January, together with a clipping of the New York City (paper) (taken from 'Modern Mexico') relative to the excessive destruction of Herons in Mexico. As you know, I am formulating a game-law with the counsel of the Department of the Interior, and have hopes that it will be promulgated within the next few months.

"I have already addressed the authorities of Tehuantepec requesting data on the subject which inspired your letter, and recom-

mending consideration for these birds which are about to disappear.

"Thanking you for the notice, I remain, very respectfully,

"(Signed) A. L. HERRERA."

#### A Good Example to Follow

Among the many letters of commendation and encouragement that are received by the Association for its work in behalf of wild birds, none has brought greater cheer than the one from which the following extract is made: "I have left your Society \$5,000 in my will, and I hope that if there is any material life in the world to which we all must go, that the birds may welcome me as they do so many mornings in my country home."—W. D.

#### A Plea for the Robin in the South

As a most earnest believer in the God-given right of even the most helpless of his creatures to live and enjoy life, this plea for the Robin is made. In the South this bird is only a winter resident, and of course the people cannot possibly have the attachment for it that obtains in other parts of the country where it makes its breeding home. The Robin is the most familiar bird of the North; it is the sharer of our home-life; it builds its nests in the vines on our porches or in the trees on our lawns; its voice is the first we hear in the spring and it sings for us until the leaves fade in the fall; it is to us what the Mocking-bird and Cardinal are to the people of the South. It stirs our hearts deeply to think that our best-loved bird has not the same affection shown him in other parts of the country.

The National Association has waged a long and arduous fight for your Cardinal and Mocking-bird in all parts of the country, and can now truly say that none are sold for cage captives in the North. This result is due entirely to the efforts and hard work of this society. We now ask you to reciprocate and do for the Robin what has been done for your special bird pets. There is still another side of this question, i. e., the economic. The Robin destroys myriads of noxious insects wherever it breeds, and

undoubtedly will be found to do the same in its winter quarters. Its value as an aid to agriculture is too great to warrant its being killed for food. We ask you to try to have the Robin protected during the short time it is with you and also help us educate the public to spare it.—W. D.

#### Bird-Lists of the Massachusetts Society

The ten best lists of Massachusetts birds for the year ending December 31, 1905, were made by the following observers:

Name	No. of Species
Lilian E. Bridge . . . . .	192
James L. Peters . . . . .	151
Anna K. Barry . . . . .	125
Bertha Langmaid . . . . .	117
Arthur W. Fletcher . . . . .	116
Louise Howe . . . . .	114
Samuel D. Robbins . . . . .	110
Sarah K. Swift . . . . .	107
Florence Howe . . . . .	102
Georgianna M. Wheelock . . . . .	72

#### The White Badge of Cruelty

In view of the decision of the courts in regard to foreign birds, to which attention is called above, we sincerely hope that the wishes of the 'Millinery Trade Review' that "there will be no let-up" in the contest between the dealers in aigrettes and the Audubon Societies may be fully gratified.

As for the 'women and girls' whose



THE WHITE BADGE OF CRUELTY

rights, if we are to believe the 'Review,' are being violated, they have no more right to encourage a traffic which is speedily bringing to extinction one of nature's most beautiful creatures than they have a right to commit any other wanton depredation which will rob those who come after us of their heritage in nature.

And we suggest that no more fitting term can be applied to the bunch of aigrettes which apparently women can be prevented from wearing, not by an appeal to their sympathies and alleged tender-heartedness, but only by the strong arm of the law, than to designate them the *White Badge of Cruelty*. — ED.

The Mrs. Bradley Fund

Total subscriptions reported in February BIRD-LORE, including January 6 . . . . .	\$791 50
Subscriptions including March 15 . . . . .	632 50
Total . . . . .	\$1,424 00

ADDITIONAL SUBSCRIBERS TO FUND

Anonymous—	
From a friend . . . . .	\$25 00
Goldfinch . . . . .	2 00
Minnedosa . . . . .	4 00
Protectors of Passage Key Reservation . . . . .	10 00
T. G. M. . . . .	5 00
Avery, Mrs. S. P. . . . .	25 00
Beech, Mrs. Herbert . . . . .	25 00
Bell, James . . . . .	1 00
Blunt, Miss Eliza S. . . . .	1 00
Bradley, Mrs. Richards . . . . .	10 00
Brandegee, Robert B. . . . .	1 00
Bristol, B. B. . . . .	1 00
Brooks, S. . . . .	5 00
Brown, Elizabeth G. . . . .	1 00
Cammann, Miss Kate L. . . . .	25 00
Codman, J. S. . . . .	5 00
Crocker, J. L. . . . .	2 00
Cummings, Miss Annie M. . . . .	2 00
Florida Audubon Society . . . . .	50 00
Gannett, Lewis Stiles, and family. . . . .	5 00
Johnson, C. R. . . . .	1 00
Kenwood Bird Club . . . . .	1 00
Kerr, Mrs. John C. . . . .	15 00

Job, Rev. Herbert K., proceeds of story entitled "Bird Protection's First Martyr," bought by Collier's Weekly . . . . .	225 00
Lee, Miss M. A. . . . .	5 00
Lovett, Miss Charlotte B. . . . .	2 00
McConnell, Mrs. L. D. . . . .	3 00
Macy, Mrs. V. Everit . . . . .	10 00
Mandell, D. W. . . . .	1 00
Miller, Miss Elizabeth S. . . . .	10 00
Moore, Mrs. J. H. . . . .	1 00
New York Audubon Society . . . . .	50 00
Norwalk Bird Club . . . . .	8 00
Pennock, Aldrich J. . . . .	1 00
Perkins, Ellen G. . . . .	5 00
Richards, H. R. . . . .	1 00
Rives, Dr. William C. . . . .	25 00
Schroeder, Miss Lizzie H. . . . .	2 00
Schwab, Rev. L. Henry . . . . .	1 00
Shannon, William P. . . . .	10 00
Smith, Miss A. W. . . . .	3 00
Sprague, Mrs. Isaac . . . . .	5 00
Stringer, H. . . . .	5 00
Towne, Rosa M. . . . .	5 00
Tweedy, Miss Florence . . . . .	1 00
Vaughn, A. A. . . . .	3 00
Walley, H. B. . . . .	1 00
Webster, L. F. . . . .	1 50
Wharton, William P. . . . .	25 00
Zimmermann, Miss Mary . . . . .	1 00
	\$632 50

State Reports\*

Connecticut

The Connecticut Audubon Society has continued its work this year along educational lines, through the public schools mostly. We have added one thousand and sixteen new members to our number, the larger proportion of these being associate members, for children who sign a pledge not to harm birds, but do not pay a fee or receive a certificate. We have added ten new libraries to our numbers for circulation through the Board of Education. Instead of buying new bird-charts for the schools, we have pasted bird and nature pictures, about fifteen hundred of them, on heavy mounts, and they were arranged into portfolios by the

\*Lack of space has prevented the earlier publication of these abstracts.

Board of Education and distributed in the schools. This seems a good way to familiarize children not only with birds, but with animals, minerals, and with all nature subjects. Our society has contributed the usual amount to the Thayer fund. At present our interest is to have the state laws of recent date translated into Hungarian and Italian: these translations are now being printed in large type, to be posted in localities in our state where these people live, as we believe it is through ignorance of our laws that they kill so many of our song-birds for food. We may also send the laws to be printed in their own newspapers, which reach all the families.

Our Executive Committee has held eight meetings this year, with an attendance of from five to fourteen members. We have had the secretary of our State Board of Education with us at some meetings, and his suggestions we find of much help in the work.—MRS. W. B. GLOVER, *Secretary*.

#### Indiana

The work of the Indiana Audubon Society has been largely educational for the past year. New societies have been organized, and especial emphasis has been placed on the work with and for the children. The society assisted the State Superintendent of Public Instruction in getting matter for the 'Bird Day Annual,' which goes into the hands of all the teachers of the state, and is really a bird manual for teachers and pupils, in many cases.

The press of the state has most cordially coöperated with the society, and over three thousand bird buttons have been given out this year to school children in the state. These buttons are contributed by the Indianapolis 'News,' and each child receiving one signs a simple bird pledge and becomes usually a worker for and friend of the birds.

In many of the schools, bird talks have been given under the auspices of the society, and the children all over the state are interested, many of them planning to feed the birds this winter.

The bird-law of the state was modified at the last session of the legislature, making it possible to prevent the trapping of native

birds, and forbidding the sale of native wild birds. Thus we have been able to get after two wrongs,—the trapping of birds, especially cardinals, and the sale of all native wild birds in the bird stores.

Prosecutions of dealers who had Quail in cold storage last spring served notice on them that the law was "loaded," and, though they got off with fines of \$400 each, they learned their lesson, and are not taking any chances now.—FLORENCE A. HOWE, *Secretary*.

#### Texas

The bird- and game-law of 1903 remains unchanged, and is enforced as to game-birds and animals, but violated over three-fourths of the state as to birds generally. Plume-hunters operated on the Texas coast this year.

Lectures have been delivered by Professor H. P. Attwater. Mrs. Cardenas and the secretary of the Texas Audubon Society.

Over 10,000 cloth warnings have been posted.

Our best work has been done through the newspapers, a large volume of miscellaneous bird-protection matter having been prepared here and at Houston, which was used by the dailies and weeklies, often with displayed head-lines and endorsements editorially.—M. B. DAVIS, *Secretary*.

#### A Vicious Bill

When the few persons interested in the traffic in foreign game in New York State found they could not legally continue their sales during the closed season (see decision of Court of Appeals, p. 72), they immediately procured the introduction of a bill in the legislature to legalize the sale of European Black Cock, Rebhuhner, Redleg, Lapwing, Egyptian Quail and Hazel Hens. This bill should not pass, as it is special legislation of the worst character, and also because it will only be a cloak for the sale of native game. The Audubon and allied societies are determined to defeat this most vicious attempt to evade the game laws. *There never will be perfect protection until all sale of game is prohibited.*—W. D.





BELTED KINGFISHER  
(UPPER FIGURE, FEMALE; LOWER FIGURE, MALE)  
Order—COCYGES      Family—ALCEDINIDÆ  
Genus—CERYLE      Species—ALCYON



# The Belted Kingfisher

By WILLIAM DUTCHER

President of National Association of Audubon Societies

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## National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 19

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The Kingfishers are a large, interesting and curious family of birds, quite as much so as their relatives, the Cuckoos. They are distributed over the greater part of the globe, and some of the species will repay special study on account of their peculiarities or beauty of plumage.

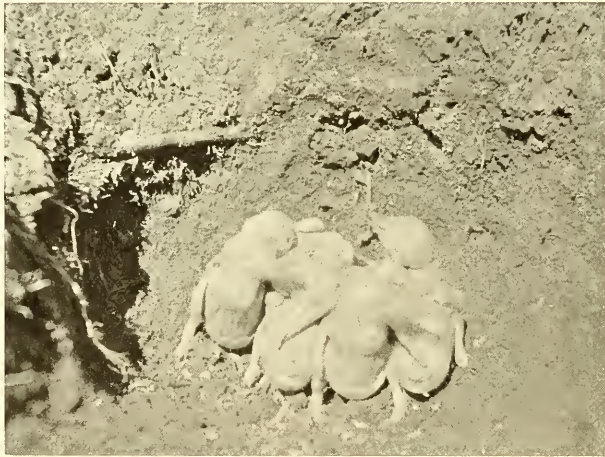
Australia possesses a very large species which has such a loud and discordant note that it is commonly known as the 'Laughing Jackass.' It is sometimes brought to this country for exhibition in zoölogical parks or traveling shows. The common Kingfisher of Europe, with its blue-green upper parts and its rich chestnut breast, is an example of striking and attractive plumage. Among the many legends connected with the Kingfisher, one tells us that originally all the members of this family were clothed in dull-colored plumage, but the Kingfisher that was liberated from Noah's ark flew toward the setting sun, and on its back was reflected the sky, while its breast was scorched by the rays of the heat-giving orb. Another fable states that Alcyone, daughter of Æolus, grieved so deeply for her husband, who was shipwrecked, that she threw herself into the sea, and was immediately changed into a Kingfisher.

Pliny says, "Halcyons lay and sit about Midwinter when daies be shortest; and the time whiles they are broodie is called the *halcyon daies*: for during that season the sea is calm and navigable." Even now the word halcyon represents calm and peaceful days devoted to pleasant outings in the woods or fields, along the ocean beaches, or paddling up some quite river, all the while learning to know the trees, or wild flowers, and the songs and forms of the birds that are everywhere seen about us.

Such are the restful days when the school and work are thrown aside and the tired brain and body drink in great draughts of life and vigor. It is then that we see our own Belted Kingfisher, a bird about twelve inches long, perched on some twig overhanging the water. It sits as motionless as though carved from stone until its watchful eye sees a fish in the water below it, when it dives for its prey, disappearing entirely beneath the surface. It rarely ever misses its aim, and on reappearing a wriggling fish is seen held in the bird's powerful mandibles. The feathered fisherman flies directly back to his favorite perch, from which the plunge was made, and, after beating its captive on the limb until it is dead, swallows it head

first. Sometimes before the bird reaches the surface of the water the fish has disappeared or is out of reach, when the Kingfisher changes its course and with an upward sweep resumes its former position. Again, during a flight over the stream the keen eye of the Kingfisher discovers a fish, when it will stop suddenly in its course and hover with extended wings over the spot for a few seconds, when it will dive with the same ease and accuracy as it did from the limb.

Kingfishers are not sociable with their own kind, nor with the human race. A pair will preëempt a locality, and no other Kingfishers are permitted to occupy the same territory. If we seek to approach this king of fishermen he permits us to get within a certain distance, usually a long gun-shot off, when his distaste for human companionship becomes so great that,



KINGFISHERS TWO DAYS OLD  
Photographed by H. L. Baily

with a loud, rattling cry, he leaves his post of observation and flies a few hundred yards up stream and alights. Again we try to approach, but the bird is even more suspicious than before, and soon takes another flight over the stream. This is repeated until the Kingfisher thinks he is getting too far away from his home, when, sweeping wide, he will circle past us and with loud, rattling cries, seemingly in derision at our futile attempts to catch him, will return to his favorite outlook to resume his finny quest.

The Belted Kingfisher is found throughout North America, but is nowhere very common, owing to its solitary and unsociable disposition. During the breeding season its range extends from the Gulf of Mexico to the Arctic Sea and from the Atlantic to the Pacific Ocean. When the ice closes the waters of the north the Kingfishers move southward, and their winter range is from the West Indies and northern South America to the Canadian border of the United States. Open water and a food supply are the factors that determine their winter quarters.

One of the singular habits of this peculiar bird is connected with its breeding. It does not build a nest in a tree or on the ground, but it excavates a hole in the side of a bank, usually near water, but not always, as railroad cuts are sometimes selected. The location of the burrow is probably determined largely by the character of the soil, the favorite kind being clay, compact sand, or mixed gravel and loam. Both the male and female bird join in the labor of excavation, which is done with their large and powerful bills, the feet being used to push out the loosened soil.

The passage is round and about four inches in diameter and extends inward, straight or with bends to a varying depth from four to twenty feet, and terminates in a round domed living-room. Here the clutch of five to eight pure white eggs are laid and the young are hatched. As the nestlings are protected from cold, heat and storms, there is little or no nesting material used, although in old excavations a considerable amount of fishbones and scales may be found. If the birds are not disturbed, a burrow will be used for a number of successive seasons.

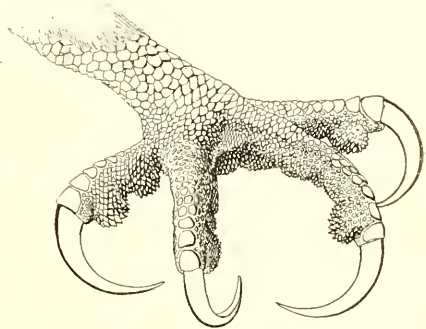
The young, when hatched, are naked, very helpless and their eyes are not opened. They grow very slowly. Kingfishers belong to the class of birds known as *Altrices*, or those whose young are helpless at birth and require feeding and care in the nest. They are in striking contrast to the *Præcoces*, whose young are able to run about and feed themselves as soon as they are hatched. One of the most interesting subjects in the study of birds is the difference in habits between the altricial and precocial birds; it will be a never-ending source of interest to the teacher and the pupils. Contrast, for instance, the helpless young of the Kingfisher with the downy, self-reliant young of the Spotted Sandpiper, that well-known bird that is seen in summer teetering on the margin of almost every river or pond in this country.\*

Another interesting subject is the investigation of the food of birds and their means of procuring it; in other words, how the bills and feet are adapted to the needs of the bird when procuring food.

Kingfishers subsist principally on small fish not over three inches in length which are of little or no value. They also eat crustacea, grasshoppers, beetles, crickets, frogs, lizards, etc. Major Bendire says, in 'Life Histories of North American Birds': "In southern Arizona, where streams are few, I have found Kingfishers breeding in localities where fish must



FEET OF KINGFISHER



FOOT OF OSPREY

\* Read 'The Kingfishers' Home-Life,' by William L. Baily, BIRD-LORE, Vol. II, p. 76, 1900.

have formed a very small percentage of their daily fare; I have more than once seen one of these birds perched on some twig overhanging a dry, sandy river-bed, where no water was to be found within several miles."

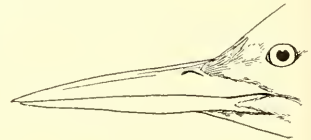
The only implement the Kingfisher needs in procuring its food, is its large and powerful bill. With this it seizes its prey, whether it is a slippery fish beneath the surface of the water or an insect on the land. Its feet are so small and weak that they are no help for grasping or holding, when securing food.

Contrast the implements of the Kingfisher with those of that other great fisher, the Osprey. Were it to plunge head first into the water for its prey, as the Kingfisher does, it would never secure food, for its hooked bill is not adapted for catching a fish. The Osprey, however, has a special implement, in large and powerful feet. When the bird plunges for a fish, its strong feet, with their long, sharp claws, are thrown downward and the fish is securely grasped. It is then carried to a perch, where it can be torn in pieces for eating or to be fed to the young.

In every line of study connected with birds, something of interest may be found. The leaflets published by this association are merely hints to the teachers, which may be elaborated by the pupil or bird club.



BILL OF OSPREY



BILL OF KINGFISHER

#### Questions for Teachers and Students

Has the Kingfisher a local name in your locality? Has it any song? Describe or imitate its call-note. Describe the shape of the Kingfisher, comparing it with some bird of the same size. What is the meaning of syndactyl? How does it apply to the Kingfisher?

Note the largest number of Kingfishers seen at one time. Describe nest, where placed, character of soil, how far from water; if one is found, record whether it is used the succeeding year. Describe the food used. Does the Kingfisher ever eat vegetable food? Name several species of fish eaten by the Kingfisher; describe them; are they found in ponds or running streams? Name a number of altricial birds that live in your locality; also some precocial birds; in what respect do they differ?

NOTE.—In order to economize space, the series of questions is not so full as it might be made. The teacher and pupil are expected to examine the questions in previous leaflets for suggestions.

NOTICE.—This leaflet, with outline figures for coloring, can be obtained of the National Association, 141 Broadway, New York. Price, per dozen, 15 cents; 100, \$1; 1,000, \$9. Leaflets are ready for distribution the 20th of the month of publication.

# Bird-Lore



EDITED BY  
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES  
BY

**The Macmillan Company**

HARRISBURG, PA.

NEW YORK

LONDON



COPIES OF BIRD-LORE WANTED.—We will give 50 cents each for the first 50 copies of Bird-Lore for February, 1905, Vol. VII, No. 1, returned to us at Harrisburg, Pa., in good condition. Mail copies flat under three cents postage.

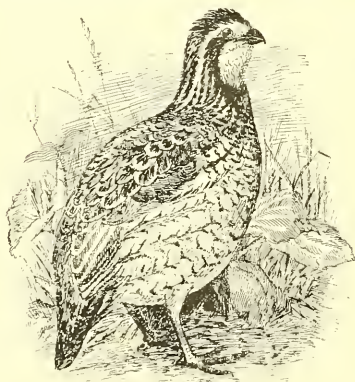
# Bird = Lore

May - June, 1906

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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.



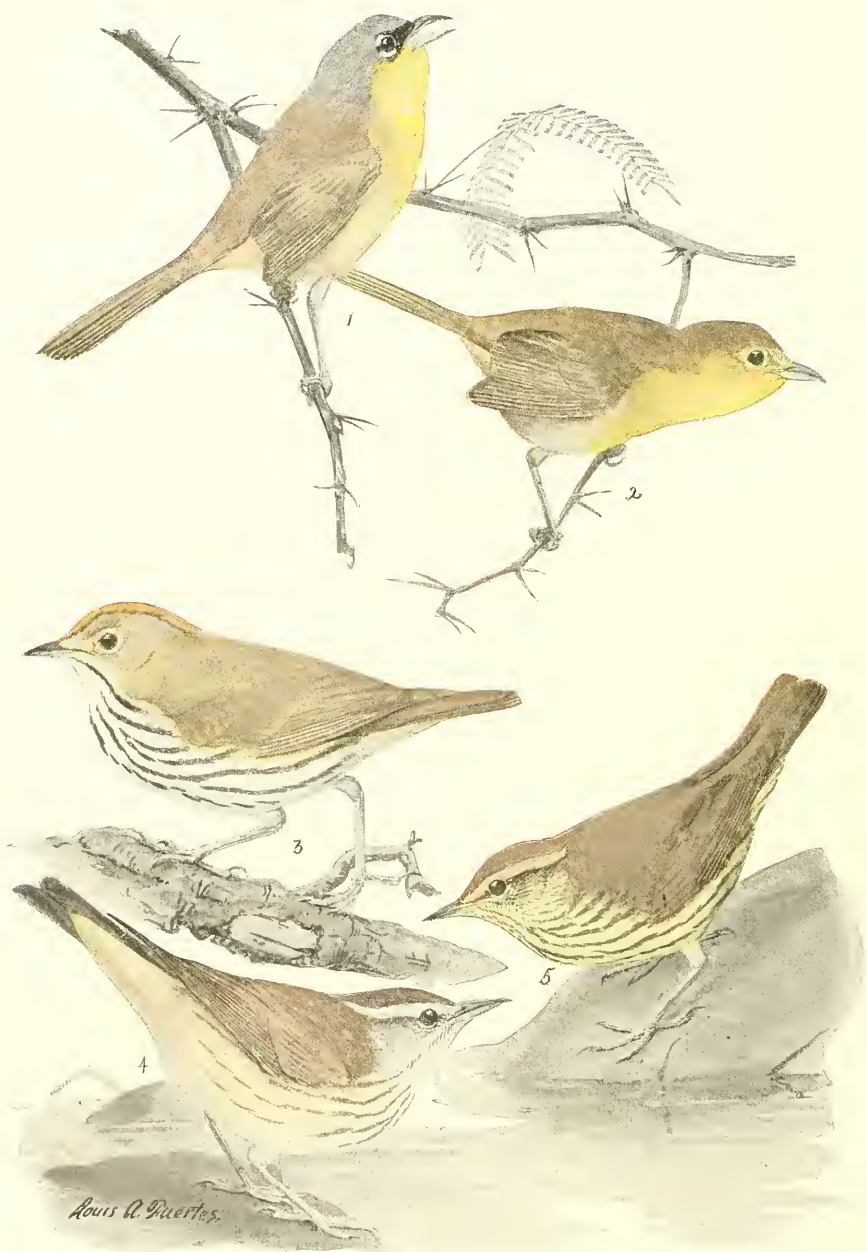
Reduced facsimile of the reproduction of Ernest Thompson Seton's drawing of the Bobwhite. Presented to every subscriber to Vol. VIII, 1906, of BIRD-LORE. The original, printed on heavy plate paper, suitable for framing, is nearly life-size.

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

On receipt of your renewal we will send you the Seton Bob-white picture, which should be considered due notification of the entry of your subscription.

If you do not care to renew, will you please notify us.





1. RIO GRANDE YELLOW-THROAT, MALE.  
 2. RIO GRANDE YELLOW-THROAT, FEMALE.

3. OVENBIRD, ADULT.  
 4. LOUISIANA WATER-THRUSH, ADULT.  
 5. NORTHERN WATER-THRUSH, ADULT.  
 (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. VIII

MAY — JUNE, 1906

No. 3

## With the Whip-poor-wills

By A. D. WHEDON

With photographs from nature by the author and R. W. Wales

NO woodland note brings to me such a flood of recollections as the call of the Whip-poor-will. Long before I knew the bird by sight I found my greatest pleasure during the gathering twilight of May evenings in lying by my open window and giving myself up to the lonely charm of the sound.

Of late years my acquaintance with this bird has grown. When passing along some forest road as darkness was coming on I have sometimes caught a glimpse of his dusky wing flitting away to deeper shades, and I have always stopped to see and hear. Again, I have lain in camp in the deep woods, and, from boughs overhead, his call has gone to dreamland with me. Thus we have had occasional meetings, but not until the past spring did our acquaintance become intimate.

Not many miles from my home is a district, which, for Iowa, is wild and rough. We call it Turkey Creek, from the small stream that winds through it to the Iowa River. Both streams have cut their valleys deep into the limestones, forming high, precipitous bluffs and long, rocky ledges. Along this little stream are found the choicest wild flowers, and in these woods dwell our most timid and seclusive birds.

For years I have used a camera to record some of the phenomena which I meet in my rambles afield. This spring a friend joined me on these excursions, his major interest, as mine, being with the birds. The morning of the 20th of May last found us tramping over these thickly wooded hills, pushing our way through the dense undergrowth and climbing over dead logs and branches in search of a subject for study. Springtime was surely holding sway, covering winter's traces with all haste. The branches above us were half hidden by young leaves of green, while down on the earth beneath our feet still lay those that were faded and dead, crumbling to mold and the possibility of the green of years to follow. Every open was crowded with spring flowers.

My companion had been in this locality the day before and had stumbled, as he put it, upon the nest of a Whip-poor-will. The place had been marked by the breaking of twigs along the line of easiest approach, and now we were back, armed with camera and plates, to spend the day.



WHIP-POOR-WILL ON NEST

Carefully we crept up the hill, intent upon avoiding the noise of crackling twigs and keeping our way.

Our destination was at last reached, but where was the nest? All that could be seen besides the underbrush were dead leaves and branches. Only the keenest search revealed it. Not twenty feet away sat the old bird on her eggs. Motionless as the brown leaves around her, she showed confident faith in her resemblance to surroundings for concealment. We were allowed to come almost within an arm's length before she gave any indication of life, and it was no wonder that my friend first found her by "stumbling" over her. If we had not stopped to focus our cameras she would probably have allowed us to walk by. However, our method of becoming acquainted through the camera must have seemed questionable, or at least have been bad taste with the goatsucker family, for she quietly slipped off into the bushes, uttering no other protest than a low, guttural *chuck*.

The nest — a little hollow in last year's leaves — contained two creamy white eggs thickly blotched with delicate shades of brown and lavender. While the old bird sat on a log near by, I photographed the eggs and then placed the camera as near as was advisable to the nest; using the long tube, I retired with the bulb to a partially hidden nook to await her return.

In a few moments she came back to within ten feet, but, seeing that there was still something unusual about the landscape, she squatted length-

wise of a dead limb near the ground, and to all intent settled herself for the day. Nothing with life could have looked more like a stub on a decayed limb. I watched her closely for a time, and if she was worried by the intrusion (and I know she did not take kindly to it), she gave no sign. In fact, I believe she even yawned now and then while waiting for me to take my little black box away.

Minutes passed and still no change. The sun crept into my covert and, at last, tired in eye and nerve, I drew more into the shade and turned my thoughts to other of nature's attractions.

Lost in my surroundings, I forgot my hostess for the moment. Suddenly I missed her clucking—she was a veritable old hen, having kept up a constant "chuck-chuck" since being driven from the nest—and I looked at the log where she had sat so like a wooden bird but a few moments ago. She was gone. The nesting site was examined carefully, but eggs and bird had disappeared and nothing remained but dead leaves. Another search, however, gave me her outline. There she was, full side to the lens, cover-



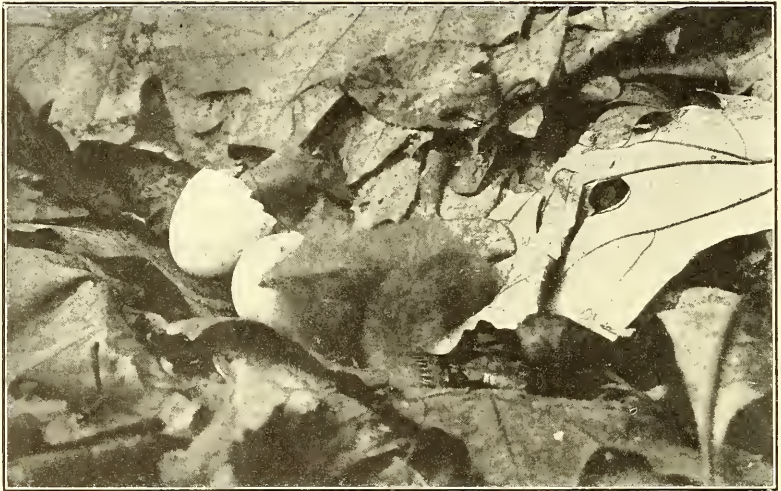
"PERCHED ON HER FAVORITE LIMB *CHUCKING* ANGRILY"

ing her eggs with all motherliness. I reached out and squeezed the bulb, the deed was done, but she did not know it.

It seemed a ruthless act to drive her from her nest a second time, but my plate-holder must be turned, and so I stole softly up to the camera.

Her reserved nature again revolted against such gross familiarity (I was within six feet of her), and she flew, or rather tumbled and flopped, off through the bushes as if I had used other ammunition than light-rays in my shooting. Soon she stopped, and for some time gave spasmodic evidence of being mortally wounded.

Set my camera and wait as long as I would, she could not again be induced to return to her nest, though the afternoon had begun to wane when I gave up the attempt. She had been all the time within a short distance, and when I came to remove the camera she glided to a half-fallen sapling beneath the brush, resting there motionless in her characteristic position parallel to the stem. A ten-second exposure got the accompanying picture.



NEWLY HATCHED WHIP-POOR-WILL

It was May 27 before we again visited the nest, and during this interval Mrs. Whip-poor-will, with the aid of Mother Nature, had wrought radical changes. One of the large oval eggs had been transformed into a fuzzy little chick; the other egg, also, was chipped. On our approach the old bird again put on the air of being hurt, and tried to lead us from the precious young, but, seeing that all her efforts availed nothing, she came back and perched upon her favorite limb some six or seven feet away. The presence of the chick seemed to have removed much of her fear, for she sat there chucking angrily, and very little difficulty was experienced in photographing her.

And the chick,—what a tiny ball of buff down he was! From his appearance and the fact that the other egg was about to hatch, it was safe to say that he was not over a day or two old, and yet he showed more temper and pluck than many older birds. Propped up on his weak little

legs, not strong enough to creep out and hide, he would strike viciously at the hand extended toward him.

Much to our disappointment, cloudy weather and rainy days prevented further observations, and the exact future of the young bird and the remaining egg was never ascertained. The home-life of these young birds is very short, for, like the Bob-White and the Grouse, they soon leave the open nest for the safer shelter of the dry leaves and grass. Before we again had a chance to return to it, the nest had probably long been empty.

## To a Chimney Swift

By DORA READ GOODALE

Uncumbered neighbor of our race !  
Thou only of thy clan  
Hast made thy haunt and dwelling-place  
Within the walls of man.

Thy haughty wing, which rides the storm,  
Hath stooped to Earth's desires,  
And round thy eery rises warm  
The smoke of human fires.

Still didst thou come from lands afar  
In childhood days as now,—  
Yet alien as the planets are,  
And elfin-strange art thou.

Thy little realm of quick delights,  
Fierce instincts, untaught powers—  
What unimagined days and nights  
Cut off that realm from ours !

Thy soul is of the dawn of Earth,  
And thine the secrets be  
Of sentient being's far-off birth  
And round-eyed infancy.

With thee, beneath our sheltering roof,  
The starry Sphinx doth dwell,  
Untamed, eternally aloof  
And inaccessible !



WOOD THRUSH AND NEST  
Photographed from nature by E. Van Alena

## Stray Birds at Sea

By F. M. BENNETT, Lieut. Commander, U. S. N.

IN January and February of the present year the writer crossed the Atlantic Ocean as a member of the naval expedition engaged in towing a large floating dry dock from Chesapeake Bay to the Philippine Islands, which employment is mentioned as a preliminary explanation of the slow progress that is shown by the following notes.

We left the capes of the Chesapeake the evening of December 29, 1905, and stood offshore on a southeast course. A number of Herring Gulls, probably about forty, had followed the ships down the bay and continued with us for four days at sea, the number remaining apparently undiminished from day to day. The morning of the fifth day, when we were about four hundred miles from Cape Henry, they were all gone and we saw them no more. The eighth day out we passed within sight of Bermuda, but, to my disappointment, no birds of either land or sea came within sight of the ship.

January 10, we met a large German steamer standing to the westward. Soon after she had passed out of sight I observed a large bird flying wildly about our ships, from one to another as though lost. I did not see this bird close enough to identify it, but from its size and color would without hesitation have pronounced it a Herring Gull but for its wider spread of wings. We had then progressed to the southeast nearly one thousand miles from Cape Henry, and the nearest point in the United States was Cape Hatteras, more than eight hundred sea-miles away. I am sure this bird had not been following our ships, and it would be interesting to know if it had followed the German steamer from Europe, more than two thousand miles, or if it was a sea wanderer lost from its kind. It continued with us all that day, but the next morning had disappeared.

The evening of January 14, I found on deck, partly hidden under a tarpaulin hatch cover, a small, dark-colored bird so exhausted that it made no resistance to being taken up in the hand, and it remained passive on my desk while I measured and examined it for purposes of identification. It was a Leach's Petrel, and my experience was certainly unique in having one of these wild, storm-loving birds alive and quiet in my hand. The tired look of its eyes, in combination with the shape of the head, gave it a peculiarly gentle and dove-like expression quite at variance with the generally supposed boisterous character of the weather in which the bird is so often pictured as delighting. No such birds had been seen about the ship, and in many years of sea-going I never before saw a Petrel in a warm latitude, nor have I ever heard of one flying aboard a ship. The accepted theory is that they sleep and rest on the water. At the time we were 1,120 sea-miles in a straight line southeast of Cape Hatteras, or nearly 1,300 land-miles.

Being called away by duty for half an hour, I put my bird in a hat-box for safe keeping. When I returned I found it had recovered its strength, and its wings, as I held it, gave proof of great power in proportion to the diminutive size of the bird. Having examined it to my satisfaction, I took it up on deck, where, with a quick sweep of wing, it vanished into the darkness, alone in a vast solitude of waters. It was a peculiar circumstance that I should have been the one to discover this bird on a ship crowded with men, the most of whom would, I fear, have killed it on sight, and none of whom, so far as I know, would have taken any interest in it.

The next day I looked many times for my bird, but the ocean yielded no sign of life except flying fish. These *do* turn and change direction in the air, notwithstanding what John Burroughs says (in 'Far and Near') to the contrary. One hesitates to dispute such an authority and one whose writings give us so much pleasure, but when I read 'Far and Near' about a year ago I felt that there was something wrong with his flying fish, as I have been seeing them for many years in many seas. Since then I have spent about eight months in tropical waters where flying fish abound, and have observed them critically with a view to this point. They certainly change direction in flight,—sometimes almost at right angles and frequently as much as thirty or forty-five degrees. I have watched some the day that I am writing.

The afternoon of January 17, I discovered three Gulls flying about the ships, and from as good observation as I could get of them on the wing I was reasonably sure they were Kittiwakes, both young and adult birds. Our squadron was then in latitude  $28^{\circ}$  north, longitude  $50^{\circ}$  west, or nearly sixteen hundred land-miles from Cape Hatteras. A week later, January 24, in making my daily observation of these birds, I noticed that their number had suddenly become five. The evening before we had met a British steamer bound west, which may or may not account for the increase in our little flock. If the two new birds had not been following the British steamer they must have been wandering aimlessly at sea, as the nearest land then was the Canary islands, about twelve hundred miles to the eastward of our.

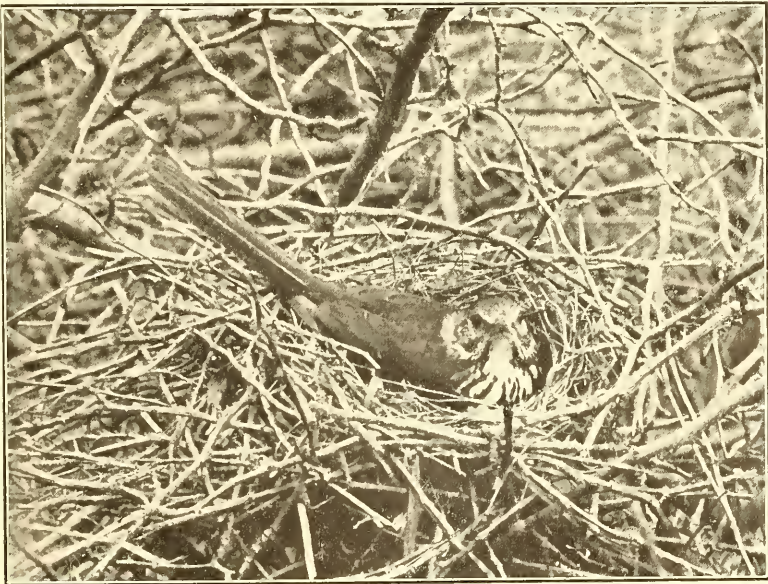
A gale soon after parted our tow-lines, scattered our ships in a tempestuous sea, drove us backward more than a hundred miles, and gave me plenty of employment more important than watching birds. Five days later, when the weather had moderated and we had resumed towing to the eastward, after a chapter of adventures in no way connected with ornithology, I had time to notice that the five Kittiwakes were still faithfully following us. If not Kittiwakes, they were some African or European species of Gull not known to the A. O. U. 'Check-List,' but I believe my identification was correct, as in apparent size and in markings they agreed very well with the descriptions of the Kittiwake.

Then ensued a period of about a week of high easterly winds (ahead) with furious squalls of driving rain that prevented any satisfactory observa-



tion of birds. The ship to which I belong was towing at the head of the line, and, as it was more than a mile and a half to the stern of the dock, it required clear weather as well as good marine glasses to make sure whether or not there were any birds about any of the ships. The bad weather came to an end at last, and by thorough search I found that only two of the Kittiwakes were still with us. The others, I suppose, had attached themselves to passing vessels that we did not see. I suppose this because the birds are so large and seem to require so much food that I doubt if they can subsist themselves at these great distances at sea without the aid of garbage thrown overboard from ships.

Daily for two weeks thereafter I saw these two birds and no others: at least it is fair to assume that they were the same two, as it is quite improbable that they should at any time have left and been at once replaced by two others just like them. February 21, we came into the Canary group of islands, where the majestic Peak of Teneriffe dominates the scenery, and here I lost sight of my birds, not by their leaving, but by numerous sea-birds gathering about the ships and putting a stop to individual identification. Some of these were of the same species as those that had followed us so long and some were smaller, with dark heads like the Bonaparte Gull. The most, however, were Great Black-backed Gulls (*Larus marinus*), and after we had entered port, at Las Palmas in the Grand Canary island, these large birds were very numerous and the only species we saw, except, of course, Canary birds brought off in cages.



BROWN THRASHER ON NEST

Photographed from nature by F. M. C., Bloomington, Ind., May 8, 1901

# Photographing a Bluebird's Nest by Reflected Light

By ROBERT W. HEGNER

With photographs from nature by the author

**B**LUEBIRDS are so numerous that, during the breeding season, almost every abandoned Woodpecker nest-hole or weather-worn cavity hides within its walls one of their nests. It is therefore no difficult task to find one suitable for studying and photographing the home-life of its tenants.

The Bluebird shown in Fig. 1 built its nest in a cavity in a plum tree,—probably the last year's home of a Downy Woodpecker. It was only four feet from the ground and



BLUEBIRD AT ENTRANCE TO NEST



NEST AND EGGS OF BLUEBIRD, SHOWING OLD METHOD OF PHOTOGRAPHING BY REMOVING PART OF THE TREE.

easily within reach of the camera on its tripod.

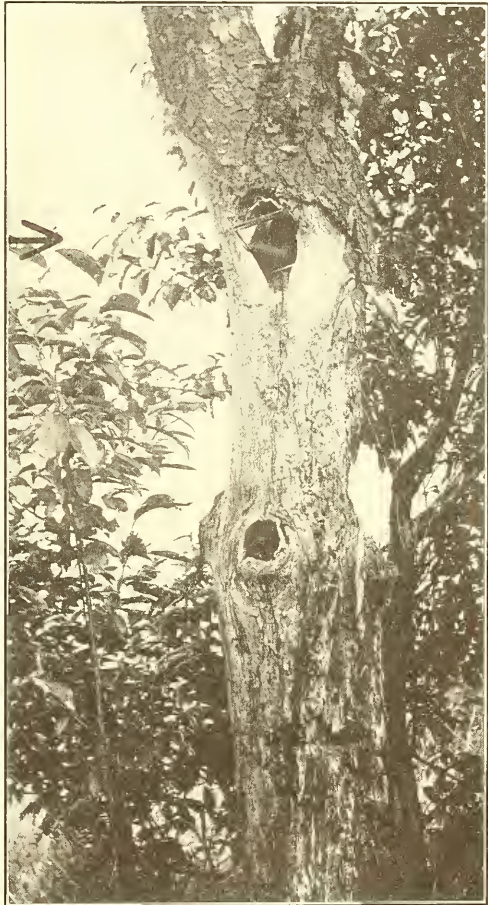
The Bluebird's fearless confidence in man makes his study a work of considerable interest. No dummy camera, artificial brush heap or tree is necessary in order to take his photograph. This fearlessness is delightful after the many exhausting waits in photographing other birds. He pays little attention to the camera placed near his nest, but often uses it as a convenient perch before entering his home, and very quickly forms the habit of resting on it a moment on every trip to the nest. Several times, when my camera has been in place before a Vesper Sparrow's nest in the

open field, a Bluebird had taken it as a new and advantageous point from which to feed. As he flies down and swerves about to catch a grasshopper, his flight is marked by a quick flash of blue from his back, which is followed directly by a glimpse of the brick-red from his breast as he returns.

The nest of the Bluebird presents a problem that is not as easily solved as most of those that interest a bird photographer. The nest shown in Fig. 2 was laid bare by cutting away a large piece from the side of the plum tree. This allowed free access to the eggs, and a picture was taken without difficulty. The part removed was replaced after the operation, and the Bluebird's household duties continued as though nothing had happened.

A year after this nest was photographed another nest was selected for an experiment in the use of mirrors, whereby the tree was not damaged; no possible harm came to this bird or nest, and the eggs were photographed *exactly* as they are in nature. The nest was built in a cavity in a cherry tree five feet from the ground. The entrance was about four inches in diameter and was fourteen inches from the nest at the bottom of the hole. The tree is shown in Fig. 3, with an arrow pointing to the entrance to the nest-hole. Fig. 4 illustrates the methods used and Fig. 5 the photograph obtained.

The rays of the sun were reflected from the mirror on the ground to the mirror in the entrance, then down upon the nest, back again to the mirror, and finally into the camera. In this way a *reflection* of the nest and eggs on the mirror in the entrance was photographed, the real nest being fourteen inches below where it appears in the picture.



TREE CONTAINING BLUEBIRD'S NEST, SHOWING MIRROR IN POSITION

The adjustment of the mirrors was a very delicate operation, and a number of negatives were made that did not contain the reflected nest because of a very slight error in directing the rays of light.

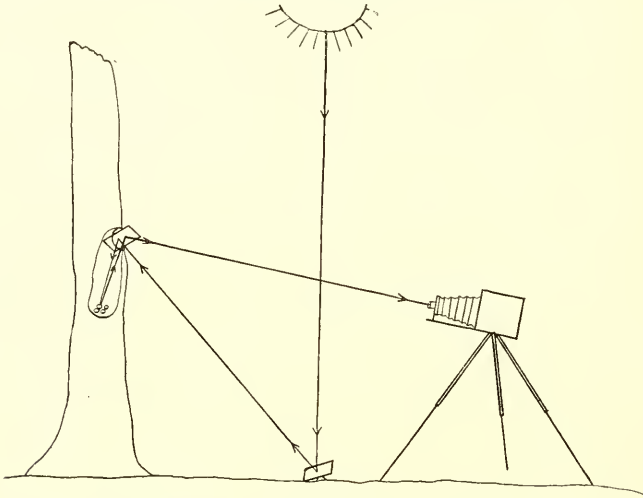
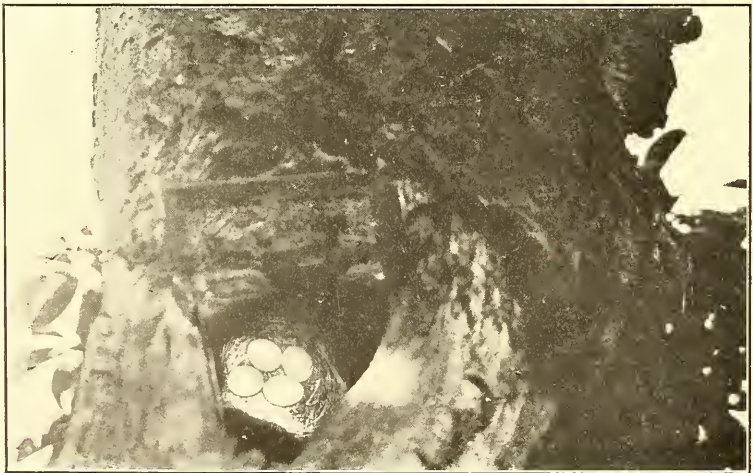


Diagram showing the direction of the rays of light from the sun to the mirror on the ground; then to the mirror in the nest hole; then to the eggs, back to the mirror, and finally into the camera.

There are an infinite number of cases where the mirror method may be used with success. I have in my collection photographs of Cliff Swallows, Chimney Swifts, Lark Sparrows, Louisiana Water Thrushes, Phœbes, House Wrens, and several other birds made with the aid of these reflectors.



BLUEBIRD'S NEST AND EGGS. PHOTOGRAPHED BY REFLECTED LIGHT

# The Amount of Science in Oölogy

By THOS. H. MONTGOMERY, Jr.

(University of Texas)

THE term oölogy, as now generally employed, means the study of the eggs of birds alone. Thus, it has come to be a branch of ornithology and takes no count of the eggs of other animal groups. And it is a still more circumscribed subject than its name would seem to imply, for egg collectors amass simply the external shells of eggs and have no interest in the other envelopes nor in the embryos themselves. This is a fair statement of what is included under oölogy, in the general usage of the term. Strictly speaking, the nidification of birds is not a part of oölogy, for nest-making falls rather into the broad category of avian architecture that includes much besides the receptacles for the eggs. And the mating and breeding habits lie, also, outside the domain of oölogy, although oölogists frequently give some attention to these subjects.

It is our intention to examine briefly how much of scientific value has been derived from the collecting and comparison of the egg-shells of birds.

There are many who take out state licenses to collect eggs "for scientific purposes" who do not seem to have a clear idea of what science is. Collecting alone is, at the best, only a preparation for science, and often it is not that much. All those, accordingly, who rest satisfied with large or representative collections, and with their suitable arrangement and exhibition, are not prosecuting scientific work, and show that they have neither desire nor ability to do it. They should, on this account, and to be in perfect harmony with the spirit of protective legislation, not be permitted to collect unless it is their purpose to hand over their collections to men who will make a scientific use of them.

Certain oölogists go further, in that they publish, to greater or less extent, descriptions and figures of their specimens. There has grown up quite an extensive literature of this kind. But description alone is not science, it also is only a step toward it. If a collector has described most accurately every set of eggs in his possession, and drawn no conclusions, he is no more than a cataloguer. There is no particular virtue in either collecting or describing unless one thereby enlarges his comprehension of the phenomena and teaches others.

The reason for this is not far to seek : science is interpretation of phenomena, it has to seek out uniformity in the apparently diverse, or, to use a term that has become somewhat old-fashioned but is nevertheless satisfying, to establish laws. Exactly in so far as oölogists attempt to do this they are scientific. If this were not so, the child who picks up bright pebbles and tells his parents about them would be a scientist.

The great fault with oölogy lies with its friends and banner-bearers.

The great majority of them are no more than collectors ; some are describers, but very few are those that try to explain. The incentives with most of them are, the esthetic one,—to hoard objects beautiful in color and form ; and the huntsman's instinct,—to seek what is difficult to discover. This aspect of collecting is like that of the bibliophile, who seeks beautiful bindings, rare editions, first imprints, but never reads his books ; or like that of the collector of china and pottery, or of postage stamps. Are not the pages of the catalogues of the dealers in birds' eggs full of advertisements of postage stamps and curios ? These dealers understand their public. Oölogists may be painfully exact in keeping notes of their specimens, but have an abhorrence for an egg-shell punctured at both ends, because this spoils its beauty for them. They have just the same delight in an abnormal specimen as a bibliophile in a unique print with the title-page omitted.

This form of oölogy can be justified on the esthetic side ; but it is no more than a pleasurable hobby, is in no manner scientific, and its licenses should rather read "for esthetic purposes." Such men are seeking beautiful oddities, with the instinct of a jeweler, but do not enlighten the world in any degree.

Let us ask what interpretative value might be derived from the study of blown egg-shells ? They present characters of size and form, of color, number, sculpturation, thickness and consistency. Qualities such as these any broad taxonomist immediately recognizes as of trivial value, because minimally conservative and therefore of small use in tracing genetic affinities of the birds producing the eggs. Only one comprehensive work is known to me,—that of Des Murs, which attempts to base racial connections of birds upon the characters of their egg-shells. An examination of his conclusions shows how full they are of exceptions, though undoubtedly his work deserves more consideration than it has generally received. A later paper by Shufeldt states a number of supposed laws in regard to form and coloration, but none of these hold for all cases, and one turns from its perusal with a doubt as to the ultimate value of such study. Newton has pointed out in his ' Dictionary of Birds ' that the study of egg-shells promises few interpretations of any broad significance. The number of eggs in a set is, to some extent at least, dependent upon the relative size of the eggs ; the explanation of the size cannot be obtained by any investigation of egg-shells, but must be founded upon the phenomena within the ovary. The number of sets, also, cannot be elucidated from any study of the egg-shells ; it is probably rather a function of the environmental condition of the length of the annual period favorable for brooding. The form of the egg must be explained from a knowledge of the shape of the oviduct and cloaca. The degree of roughness of a shell's surface is dependent, so far as we know, upon the consistency of the calcareous secretion, and that, as well as its thickness, upon the nature of the genital organs. Not one of these characters can be explained by a knowledge of egg-shells alone.

The color of egg-shells, as demonstrated many years ago by Carus and supported by later workers, is due to chemical decomposition of blood poured over the egg as it descends the oviduct; the color exhibits that the parturition is accompanied by pain, but does it show much more? White eggs are colored in the same way, but by white pigments. If any laws of this coloration are to be worked out, they must be on the basis of a chemical study of the blood of the living bird at the time of oviposition, with due consideration to the length of sojourn of the egg in the oviduct and the vascular supply of the latter. Nothing with respect to their origin is to be explained from the colors of the deposited eggs.

The most that has been accomplished by the comparison of egg-shells is that certain patterns of coloration hold for particular groups of birds. At the same time, however, it is known that in other groups, and apparently quite as natural ones, there is no such uniformity. This should make us cautious in ascribing particular genetic value to color patterns of egg-shells. Indeed, it appears to me probable that such patterns frequently have neither teleological nor phylogenetic worth, may be without relation to the light or other conditions of the environment, are merely expressions of the chemical nature of the parent bird, and, therefore, doubtless readily influenced by food changes. If oölogists were scientific they would commence with the study of the eggs of the ancestors of birds, the reptiles, and seek among extant birds for the ones with reptile-like eggs.

In regard to abnormalities of form, size and color of egg-shells,—conditions so inexpressibly and yet so inexplicably dear to the heart of the egg collector,—these we shall not be able to understand until we can explain the normal conditions. Today examples of runt eggs and their like have no other value than that of curios. Their explanation is to be sought in abnormalities and malformations of the reproductive organs; they are to be associated with malnutrition or disease.

These considerations might be carried out at much greater length, but they suffice to show, in the first place, that the great majority of oölogists do not deserve the name of scientist, and, in the second place, that the subject of dead egg-shells admits of very limited scientific treatment. For scientific explanations are interpretations of genesis, and to understand we should study the parent in the first instance, and not the dead shell.

The scientific study of eggs is that of the embryologist who considers the germ and its differentiation. But how many oölogists are familiar with the names and thoughts of Wolff, Pander, von Baer, W. K. Parker, His and Balfour? These men have taught us more about the eggs of birds than all the thousands of oölogists who have collected egg-shells. Oölogists can tell one the technical name of the species, perhaps quote the 'A. O. U. number,' and recall numbers and colors, and thereby think they hold the quintessence of knowledge, but this is no more than statisti-

cal learning. They see the egg-shell, but what do they know of the egg? The oölogist keeps the calcareous test simply because it is colored and easily preserved; he blows out the living contents to save this husk. How the oölogist hates the "badly incubated egg!" But that embryo is a bird in process, while the shell is little more than salts of lime.

A museum of infinite value to the anatomist and evolutionist would have resulted, had oölogists collected embryos instead of empty shells. The subject of oölogy today is neither a science nor does it bid fair to become one, until its followers become trained embryologists with an enthusiasm not for collecting but for interpreting. He will achieve results who leaves his desert of empty shells, his cabinets strewn with chalky skeletons, and strives to compare and correlate the differences in architecture, nesting sites, communalism, the feeding of the young and that most complex process, their education.

I wish to have it plainly understood that I take no stand against the few oölogists who honestly try to interpret, but an uncompromising one against the multitude who blindly collect without any scientific results. The latter are effecting an enormous destruction of bird life, much greater than those who collect the birds themselves, and altogether out of the idle love of possession. Much is called science that does not merit the name. They kill not only through the collecting of the eggs, but usually also by killing one or other of the parents for purposes of identification. All this destruction is the more effective in that it must needs be carried out during the breeding season, at the very time when it most securely tends to exile birds from their home areas. The argument that the taking of the nests and eggs is necessary to establish breeding records will not hold, for the sight of the nest or as frequently the behavior of the old birds demonstrates whether they are breeding in a particular locality or not. Oölogists are verily annihilating both the goose and its golden eggs, and they deceive themselves when they consider it scientific work.

## The World-Problem

By S. S. TOWLES

The bees hum it over and over'  
To the nodding heads of the clover,  
And every sweet-throated rover  
Calls it aloud from the trees.

It sounds in man's ears forever,  
And he hears—but listens to it, never—  
For he is far, far too clever  
To be taught by the birds and the bees.





CALIFORNIA MOUNTAIN PARTRIDGE

From a group in the American Museum of Natural History

# For Teachers and Students

## The Migration of Warblers

SIXTEENTH PAPER

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

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

### OVENBIRD

#### SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Raleigh, N. C. . . . .	15	April 14	April 7, 1892
French Creek, W. Va. . . . .	5	April 24	April 19, 1891
Variety Mills, Va. . . . .	9	April 26	April 19, 1891
Washington, D. C. . . . .	7	April 23	April 10, 1904
Beaver, Pa. . . . .	6	April 28	April 24, 1902
Berwyn, Pa. . . . .	12	May 1	April 22, 1897
Renovo, Pa. . . . .	8	May 2	April 29, 1896
Englewood, N. J. . . . .	8	April 29	April 25, 1902
New Providence, N. J. . . . .	10	May 3	April 28, 1894
Southeastern New York . . . . .	15	May 2	April 26, 1890
Alfred, N. Y. . . . .	17	May 8	May 2, 1902
Northeastern New York . . . . .	10	May 8	May 3, 1886
Hartford, Conn. . . . .	9	May 3	April 26, 1893
Framingham, Mass. . . . .	9	May 3	April 30, 1893
St. Johnsbury, Vt. . . . .	9	May 9	May 5, 1894
Southern New Hampshire . . . . .	8	May 7	May 3, 1899
Southern Maine . . . . .	8	May 10	May 7, 1899
Montreal, Can. . . . .	7	May 13	May 8, 1887
Southern New Brunswick . . . . .	10	May 20	May 13, 1904
Central Nova Scotia . . . . .	3	May 23	May 17, 1895
North River, Prince Edward Island . . . . .			May 19, 1887
<i>Mississippi Valley—</i>			
New Orleans, La. . . . .	3	April 8	April 6, 1895
Eubank, Ky. . . . .	10	April 10	April 3, 1888
St. Louis, Mo. . . . .	4	April 14	April 12, 1887
Brookville, Ind. . . . .	6	April 23	April 14, 1883
Waterloo, Ind. . . . .	12	April 27	April 21, 1896
Oberlin, Ohio . . . . .	9	April 26	April 22, 1899
Chicago, Ill. . . . .	6	May 3	April 21, 1902
Southern Wisconsin . . . . .	9	May 1	April 27, 1899
Petersburg, Mich. . . . .	12	April 27	April 23, 1885
Detroit, Mich. . . . .	12	May 1	April 24, 1891
Southern Ontario . . . . .	16	May 4	April 30, 1899
Parry Sound District, Ont. . . . .	11	May 12	May 7, 1902
Ottawa, Ont. . . . .	13	May 16	May 10, 1897
Keokuk, Iowa . . . . .	10	April 29	April 26, 1903
Sabula, Iowa . . . . .	9	April 30	April 27, 1896
Grinnell, Iowa . . . . .	6	April 30	April 27, 1888
Lanesboro, Minn. . . . .	8	May 6	April 27, 1888
Elk River, Minn. . . . .	7	May 7	May 5, 1888
Aweme, Man. . . . .	8	May 14	May 10, 1905
Red Deer, Alberta . . . . .	2	May 28	May 27, 1892
Athabasca Lake . . . . .			May 29, 1901
Nulato, Alaska . . . . .			May 30, 1867

# The Migration of Warblers

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## FALL MIGRATION

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Aweme, Man. . . . .	5	September 13	September 23, 1899
Lanesboro, Minn. . . . .	2	September 18	September 22, 1888
Grinnell, Iowa . . . . .	5	September 13	September 16, 1885
Ottawa, Ont. . . . .	4	September 23	September 29, 1900
Livonia, Mich. . . . .	3	September 18	September 24, 1891
Detroit, Mich. . . . .	12	September 29	October 12, 1905
Chicago, Ill. . . . .	7	September 28	September 30, 1898
Waterloo, Ind. . . . .	4	October 2	October 7, 1887
North River, Prince Edward Island . . . . .	2	August 26	September 2, 1888
St. John, New Brunswick . . . . .	2	September 24	September 29, 1891
Montreal, Can. . . . .			September 14, 1887
Renovo, Pa. . . . .	6	October 5	October 7, 1902
Germantown, Pa. . . . .	5	October 7	October 9, 1887
Washington, D. C. . . . .			October 17, 1890
Raleigh, N. C. . . . .			October 23, 1885
Eubank, Ky. . . . .			October 27, 1886

## NORTHERN WATER-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	April 24	April 18, 1894
Washington, D. C. . . . .	5	April 30	April 24, 1904
Germantown, Pa. . . . .	5	May 6	May 4, 1888
Renovo, Pa. . . . .	5	May 6	May 1, 1897
Portland, Conn. . . . .	4	May 5	May 1, 1891
Boston, Mass. . . . .	5	May 8	May 2, 1896
Southern New Hampshire . . . . .	4	May 7	May 3, 1902
Southern Maine . . . . .	6	May 10	May 7, 1902
Quebec, Can. . . . .	6	May 7	May 2, 1902
Scotch Lake, N. B. . . . .	6	May 12	May 6, 1905
Lake Mistassini, Que. . . . .			May 19, 1885
Hamilton River, Labrador . . . . .			May 31
<i>Mississippi River—</i>			
St. Louis, Mo. . . . .	6	March 27	April 21, 1883
Waterloo, Ind. . . . .	5	April 26	April 23, 1886
Oberlin, Ohio . . . . .	7	April 29	April 26, 1904
Listowel, Ont. . . . .	12	April 28	April 25, 1896
Guelph, Ont. . . . .	8	April 30	April 28, 1905
Parry Sound District, Ont. . . . .	7	May 5	May 2, 1897
Ottawa, Ont. . . . .	3	May 10	May 8, 1905
Detroit, Mich. . . . .	6	May 2	April 28, 1886
Southern Wisconsin . . . . .	8	May 2	April 27, 1901
Keokuk, Ia. . . . .	6	May 3	April 30, 1895
Lanesboro, Minn. . . . .	9	May 5	April 30, 1890
Minneapolis, Minn. . . . .	4	May 6	May 3, 1890
Northwestern Minnesota . . . . .	4	May 9	May 7, 1896
Aweme, Man. . . . .	5	May 15	May 12, 1902
Fort Simpson, Mackenzie . . . . .	5	May 19	May 14, 1904
Columbia Falls, Mont. . . . .	5	May 20	May 18, 1895

## FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Shelter Island, N. Y. . . . .	4	August 16	August 11, 1896
Englewood, N. J. . . . .	3	August 14	August 8, 1897
Washington, D. C. . . . .	4	August 5	July 28, 1889
Raleigh, N. C. . . . .	8	August 11	July 29, 1893
Mount Pleasant, S. C. . . . .			July 27, 1897

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Lanesboro, Minn. . . . .	3	September 22	September 24, 1889
Ottawa, Ont. . . . .	2	September 16	September 17, 1891
Chicago, Ill. . . . .	8	September 20	October 1, 1895
Detroit, Mich. . . . .	6	September 26	October 8, 1905
Renovo, Pa. . . . .	4	October 3	October 5, 1902
Raleigh, N. C. . . . .	6	October 1	October 6, 1894

## LOUISIANA WATER-THRUSH

## SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Gainesville, Fla. . . . .			March 8, 1887
Mt. Pleasant, S. C. . . . .			March 21, 1904
Raleigh, N. C. . . . .	11	March 31	March 26, 1889
Asheville, N. C. (near) . . . . .	5	March 28	March 25, 1894
French Creek, W. Va. . . . .	4	April 3	March 27, 1890
Washington, D. C. . . . .	5	April 11	April 2, 1905
Waynesburg, Pa. . . . .	4	April 13	April 8, 1894
Englewood, N. J. . . . .	7	April 17	April 14, 1886
Renovo, Pa. . . . .	7	April 23	April 11, 1901
Portland, Conn. . . . .	3	April 17	April 13, 1892
<i>Mississippi Valley—</i>			
New Orleans, La. . . . .			April 2, 1898
Eubank, Ky. . . . .	9	March 27	March 24, 1889
St. Louis, Mo. . . . .	6	April 8	March 29, 1884
Waterloo, Ind. . . . .	5	April 7	April 5, 1893
Oberlin, Ohio . . . . .	4	April 14	March 28, 1904
Petersburg, Mich. . . . .	9	April 17	April 4, 1890
Lanesboro, Minn. . . . .	9	April 22	April 18, 1887

## FALL MIGRATION

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Lanesboro, Minn. . . . .	3	August 3	August 26, 1888
Renovo, Pa. . . . .	6	September 8	September 30, 1903
Englewood, N. J. . . . .			October 2, 1885
French Creek, W. Va. . . . .			October 7, 1890

# Notes from Field and Study

## A Robin-Oriole Nest

I enclose a photograph of a nest which I have been told is quite unique. I have spoken of it to a number of ornithologists in this city, and none of them ever heard of an occurrence before of such a combination. As may be seen, a Robin built its nest in an old nest of the Baltimore Oriole.

When I was visiting at Lowville, Lewis county, N. Y., two years ago, I saw that an Oriole had built a nest in a small sugar-maple in front of the house. The next summer I saw a Robin fly up to the nest, and an examination showed that its nest was built upon the Oriole's nest. My brother, Romeyn

B. Hough, cut off the branch and made the accompanying photograph. The location was quite unusual for an Oriole's nest, as it was on a small limb about a foot from the trunk of the tree.—E. C. HOUGH, *Washington, D. C.*

## A Robin Episode

Ever since I was twelve years old, I have carried in my memory a bird episode which still seems to me one of the best of its kind that I have ever known. It occurred in our own garden, and I have often meant to hand it over to BIRD-LORE. Here it is.

One day, I took from a Robin's nest one of its two eggs, while the male bird fluttered about in the usual distress. His wife, as it later proved to be, was not there; but an hour later I found her choking to death with a cherry, though still too vigorous to let me catch her and relieve her. Her mate followed me in great fury, as I chased her about, and two hours later I found her dead.

All this happened just before I left home for a week's absence. On my return, my first visit to the garden carried me under the big apple trees, in the first of which was the Robin's nest, and in the next, two others,—one of Kingbirds, the other of a pair of Chippies. I chanced to be looking down upon the grass as I came along, when, to my amazement, I was violently struck on the head by the male Robin, and then by one of the owners of each of the other nests! And for a week or two, if my memory serves, certainly for a good many days, it was my most exciting experience to go out there, feigning absorbed contemplation of the grass,



A ROBIN'S HOME IN AN ORIOLE'S NEST  
Photographed by R. B. Hough

always to be struck in the same way by all three birds, or, for all I know, by both the Chippies and both the Kingbirds. It was as if they knew the Robin's grievance and believed only his side of the case,—believed that, after robbing his nest, while his little heart was already breaking at his wife's plight with the cherry, I had chased her about, to kill her, and they felt, with him, that I must be exterminated. Presumably they had witnessed all my offenses, although I particularly noticed the fact that they had given no indications of this at the time,—a fact that gave extraordinary force to the sense that they *must have been* TOLD. It does seem that if birds and we "be of one blood" and differ only in *degree*, there could be nothing more primitive, and therefore impartable than what this Robin had to tell: "That boy is a murderer; see how my hatred proves it!"

Now here is the sequel to this remarkable affair. Weeks went on and I had forgotten to notice that the poor widower still sat, with briefest absences, on that one egg, or on whatever there now was in that nest, in place of the egg. I suppose I must have discovered that, at last, he was feeding a young bird there; but he sat on, so much too long that the strangeness of it all dawned on me one day, and I re-climbed the tree, while the poor father went nearly out of his head. A strange spectacle met my eyes; a full-grown, full-feathered, long-tailed young Robin, pressed out wide with being so long sat on, filled the nest from rim to rim. I didn't ascertain whether his spread-out aspect was merely of his feathers, or whether his anatomy had really suffered.

I put my finger under him and gently raised him, capping, in the poor widower's frenzied belief, all my series of deviltries, till suddenly he flew away, perfectly normally as far as I remember, but for many days or weeks I do remember that I could recognize him with his parent about the place.—ABBOTT H. THAYER.

#### Bird-Life Along Sucker Brook

Not a very high-sounding name for a creek,—in fact, I believe that there is another name, Bay Brook, but to me the old name

given by the first inhabitants of this region has a more pleasant sound.

Sucker Brook is a small stream flowing into the west side of the east branch of Lake Keuka, one of the prettiest in central New York. The brook is a small creek, which has its rise about one and one-half miles back from the lake in a small swamp. It flows through low, wet meadow-land for about three-fourths of its length, and the remaining distance is through a beautiful grove. The brook receives its name from the fact that in spring suckers come up into its mouth to spawn, though the number grows less year by year.

During the summer the lower part of the brook usually dries up, leaving only a stone-strewn channel through the grove. In the spring crayfish and frogs are very abundant along its course. Twice this stream is crossed by a trolley line, and three times by a public highway. Near its mouth are located the power-house for the trolley line, a basket factory and a cooper's shop. From any point along its bank one can hear the whiz of the trolley-car and the rumble of the farmer's wagon as he passes along the road.

Yet in spite of its publicity, I find it the best place for bird study in my neighborhood. Its thicket-covered banks form a paradise for Warblers in their season; in fact, it is the only place hereabouts where I do see the more retiring of these bits of color. Here I have seen eighteen different Warblers, among them the Mourning Ground, Wilson's, Parula, Blackpoll, Black-throated Green and Blue, Louisiana Water-Thrush, Canadian, Kentucky, etc.

About April 21 the Hermit Thrush puts in his appearance, and during the summer evenings the Veery charms me with his rich soprano-alto notes. The Spotted Sandpiper, of course, is present with his sharp *peet-weet*. The Kingfisher obtains many a good meal from its waters during the first part of the season. Five kinds of Swallows are seen along the course of the creek during the summer, the Rough-winged sometimes nesting near the mouth of the stream.

As I follow the bank and come out of the grove I find Sparrows in abundance, and in the marshy border the noisy Red-

wings are to be seen from early spring until autumn. When I have penetrated the small swamp which forms the source of the creek, I find the Marsh Hawks, Mourning Dove, Purple Finch, and, in the early spring, the Fox Sparrow.

It is in my winter rambles that I really enjoy the tree-covered banks of Sucker Brook the most. When standing in the shelter of a friendly oak I can watch the Nuthatches and Chickadees make merry while cleaning out the little remaining meat from the hickory-nuts which the red squirrels have discarded. It is at such a time as this that I have about my only chance of watching a Nuthatch on the ground, and then he does not stay long. He will poke about among the leaves until he finds a nut unto his taste, then, flying to a near-by shagbark, he will place the nut securely in a crevice of the bark, stand on his head and extract the last bit of meat from the shell, then away for another.

Flickers, Hairy and Downy Woodpeckers are also to be seen, and last winter a group of some ten or twelve male Redheads made the grove noisy with their continual yelping. At dusk the little Screech Owl is more often heard than seen. And all the year round that crafty old fellow, the Crow, keeps a close watch on all the doings along the creek. Yesterday I surprised one. I was just crossing a rustic bridge, when the Crow flew up with a caw of surprise and anger; I had interrupted his repast from kitchen refuse. For once there seemed to be no sentinels posted.

In the more open parts the Winter Chippy feeds, and once in a while I find my friend of the early springtime, the Song Sparrow, in their company. Some winters the Snow Buntings visit the bordering meadows, though they are by no means regular in their appearance in this section. Altogether I have seen some ninety different kinds of birds along Sucker Brook.—NELSON A. JACKSON, *Keuka Park, N. Y.*

#### A May Snow-storm

The following notes relate to observations made at Grass Creek, Pine Ridge Reservation, S. D. On May 3, 1905, a cold rain

prevailed all day, coming from the north. In the evening the rain-storm changed to a snow-storm, which continued all night, all the next day, and into the succeeding night. It was practically a blizzard. Western Lark Sparrows had arrived on May 1, and the storm rendered them very uncomfortable, to say the least. They huddled close to the south sides of the buildings, seeking shelter, and looking for food where the ground was bare. I threw out crumbs of bread to them, many of which they picked up. They slept under the door-steps and in a stable well sheltered by a hill, as well as in spaces among cord-wood in the wood-pile.

The Horned Larks did not appear to mind the storm greatly, at first, but ultimately they began to flock with the Lark Sparrows. They did not, however, so far as I could ascertain, eat any of the crumbs that I had thrown out. But the cold had made these birds, as well as the Sparrows, almost fearless of me.

A White-rumped Shrike had killed a Lark and thrown the body over a wire on the fence, thus enabling him to hold it easily. He was eating the decapitated carcass, and returned to it after I had frightened him off.

When the snow had nearly disappeared I saw a large number of the Sparrows and Larks feeding together. A Shrike flew over them, a few feet above the ground. The Larks nearly all took alarm and flew away, but the Sparrows fed on unconcernedly with the few Larks that remained.

The flocks of Blackbirds that had previously been with us disappeared while the blizzard was in progress and did not return until it had cleared; but a single Bronzed Grackle, accompanied by a male Cowbird, sought at times for food about our doors, during the storm.

The morning after the storm had ended I saw a Say's Pewee at one of the windows of the house in chase of a fly that was on the outside; and afterwards I saw him trying to secure one or two of these insects that were on the glass within doors. When the storm was raging I had seen him upon the ground, searching for food as ordinary ground-dwellers do.—H. TULLSEN, *Manderson, S. D.*

# Book News and Reviews

## The Ornithological Magazines

THE CONDOR.—In the leading article of the January number of 'The Condor' Wm. L. Finley gives an account of the nesting habits of the Golden Eagle, illustrated with reproductions of six striking photographs, by Finley and Bohlman, of the nest, eggs and young. From observations made on a nest in the coast region of California, he estimates that it required four months for the eagles to rear a brood and that they killed about 540 ground squirrels as food during the three months that the young were fed by the parents. Three papers entitled 'A Collecting Trip to Calayan and Fuga,' in the Philippines, by R. C. McGregor; 'A Collecting Trip to Southeastern Colorado,' by E. R. Warren; and 'The Birds of Cheney, Washington,' by Roswell H. Johnson, illustrate the wide range of field work of members of the Cooper Ornithological Club. The series of portraits of European ornithologists is continued, with photographs of Dr. Ernst Hartert and Arthur H. Evans, of England, Dr. A. B. Meyer, of Dresden, and John A. Harvie-Brown, of Scotland.

Some idea of the varied contents of the March number can be gained from the following brief summary of the principal articles: Finley gives an illustrated account of the nesting habits of the Great Blue and Black-crowned Night Herons, and Bowles describes the finding of a nest of the Hermit Warbler (*Dendroica occidentalis*) near Tacoma, Washington, in June, 1905. Ray contributes brief notes on 44 species of 'Summer Birds of San Francisco County, California'; Joseph Mailliard, 'Summer Notes from a Santa Barbara Garden'; and Emerson tells of the 'Habits of a Mocking Bird' at Haywards, Calif. Ridgway discusses the status of *Pipilo maculatus atratus* and *P. m. megalonyx*, and concludes that the two forms are distinct. Emerson describes two new species of White-rumped Petrels from the North Pacific coast. *Oceanodroma beali* from Sitka Bay, Alaska, and *O. beldingi*

from Netarts Bay, Oregon. McGregor describes two convenient 'Methods of Filing Reprints' which will be useful to readers who have not found a satisfactory way of keeping separates readily accessible. Among the notes 'From Field and Study' the editor has a timely article on the 'Foolish Introduction of Foreign Birds,' based on the capture of a European Chaffinch near Monterey, Calif., and summarizes the question in the following terms: "Bird students should take pains to curtail the popular spread of this idea that the importation and release of foreign birds is desirable. It may even be dangerous."—T. S. P.

THE AUK.—The April number opens with a crisp article entitled 'Random Notes on Pacific Coast Gulls,' by A. W. Anthony. The great abundance of Gulls of many species along the whole of our western shores is well known, and all of us can enjoy Mr. Anthony's portrayal of the striking traits of these dainty, kid-gloved scavengers of the blue ocean. On later pages the reader is taken, under 'Stray Notes from Alaska,' to the bleak tundra of Seward Peninsula, and a solution of 'Where does the Large-billed Sparrow spend the Summer,' is suggested. It seems probable that its unknown nest and eggs will be found near San Diego, California.

'The Florida Gallinule Nesting on Long Island, N. Y.,' is reported by Dr. W. C. Braislin, who has found the birds within city limits where streets have been filled in over salt marshes, leaving slimy cat-tail beset pools into which the enthusiast may wade to his neck, if he wishes, to examine nests and eggs.

Local lists are furnished by J. H. Bowles on the Birds of Tacoma, Wash., by R. W. Williams, Jr., on Leon county, Florida, and by Dr. C. W. Townsend on the birds of Cape Breton Island. 'Variation in the Hairy Woodpecker' is the theme of H. O. Jenkins' paper. It is a pity he did not find some *similarities* in this wide-ranging



group of birds, but, to be sure, this would have been a rude shock to the systematists who only look for *differences* and name them all! 'Unpublished Letters of Audubon and Baird,' by R. Deane, are pleasant reading, being filled with ornithological topics of the day. Incidentally, the clumsiness of the duodecimal system is well illustrated.

An important paper by F. W. Carpenter on 'An Astronomical Determination of the Heights of Birds during Nocturnal Migration,' shows that these heights are not as great as was estimated by earlier observers. He gives the credit of modern experiments to Prof. J. Stebbins, of the University of Illinois.

A new form of Petrel (*Oceanodroma monorhis chapmani*) from California, is described by Von Berlepsch, while J. Grinnell offsets this addition by discrediting the validity of the San Francisco Titmouse. A bird new to the North American Check-List, the Gray-breasted Martin (*Progne chalybea*) is added by W. De W. Miller, and other records of value may be found among the general notes.—J. D., Jr.

JOURNAL OF THE MAINE ORNITHOLOGICAL SOCIETY.—In the December, 1905, number the leading articles are 'The Ducks of Merry-meeting Bay,' by F. T. Noble, and 'Contributions to the Life History of the Myrtle Warbler,' by O. W. Knight. The March, 1906, number contains the proceedings of the Tenth Annual Meeting of the Society, which indicate the prosperous and active condition of the organization. Other articles are an account of the 'Nashville Warbler in Maine,' by O. W. Knight, and a series of Christmas 'Bird Census Reports.' The usual valuable local notes complete the number.

THE WILSON BULLETIN.—The first number of Vol. XVIII contains an annotated list of the birds of Scott County, Iowa, by B. H. Wilson; 'August at Lake Tahoe and a Hammock List of Sparks Nevada,' by Esther Craigmile, and 'November Aspects in Spokane County, Washington.' by W. L. Dawson. P. A. Taverner treats at length of the status of the Yellow-breasted

Chat as a Michigan bird, and gives an interesting account of a young Flicker tagged with an aluminum band on the tarsus, at Keota, Iowa, in May, 1905, which was shot at Sabine Parish, Louisiana, on Christmas day. Mr. Taverner has had many other young birds tagged in the same way and looks with interest for information as to their capture.—W. S.

In the second number of The Ontario Natural Science Bulletin (1906) is an article by Dr. J. Dwight, Jr., on the 'Use and Abuse of the Subspecies,' written chiefly for those not already familiar with the subspecies problem. The differences between species and subspecies, the origin of subspecies and the naming of them are the questions discussed.

Dr. Dwight believes that we should have an exact and consistent vernacular as well as technical nomenclature for subspecies. For instance, the three geographical forms of *Merula migratoria*, *migratoria*, *propinqua* and *achruster*, should be known respectively as the Northern American Robin, the Western American Robin and the Southern American Robin, and the name American Robin, now used exclusively for the northern form, should be applied to the species as a whole. This is a matter which should be given consideration by the revisers of the A. O. U. Check-list.

In concluding, Dr. Dwight states "there are \* \* \* two abuses of the trinomial that greatly detract from its value: one is naming at sight every variation, and the other is, naming races the variations *within* which are considerably overlapped by adjacent races already described. As an example of the first-mentioned abuse, we have some of the pallid or desert races that bleach in the sun for a season, although the new plumage is as dark as that of birds of humid areas."

As an example of the second abuse, the finely divided eastern races of the Downy Woodpecker and the Maryland Yellowthroat are cited, and Dr. Dwight argues that naming intermediate races simply results in a "horde of new intermediates." W. DEW. M.

# 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

Vol. VIII Published June 1, 1906 No. 3

## SUBSCRIPTION RATES

Price in the United States, Canada and Mexico twenty cents a number, one dollar a year, postage paid.

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Bird-Lore's Motto:

*A Bird in the Bush is Worth Two in the Hand*

THIS is the season for practicing, not for preaching ornithology; the season of plenty to which, during the winter, we look forward eagerly. Books and specimens now seem a sad substitute for the bird in its haunts, and we welcome the opportunity to go to Nature itself to see for ourselves phenomena with which we are familiar only through the descriptions of others, and with the always inspiring possibility of observing some fact which has escaped record.

It may be only a new date for an old bird; it may be some noted phenomenon in bird-life; in either case the observation is original and possesses the incomparable force of a personal experience. Since the last number of BIRD-LORE appeared, we have, for example, seen the Migrant Shrike at Englewood, N. J., for the first time in the spring (April 16), and have watched, under exceptionally favorable conditions, the 'booming' Prairie Hen. The experiences differ widely in interest, but they possess, in common, the educative value attached to those things we see with our own eyes.

No bird-protective law should be without a provision providing for the granting of permits to collect birds for scientific purposes; and, be it said to the credit of the Audubon Societies, they have invariably advocated the inclusion of such a provision when urging the passage of bird-protective measures. These permits are usually issued by the State Forest, Fish and Game Commission, and the present tendency is not only to make it exceedingly difficult to se-

cure a permit, but to restrict the number issued. The conditions under which a permit may be secured may well be determined by those who give it; but we believe it to be unwise so to restrict the number of permits in force that deserving applicants are denied the privilege of securing specimens legally. With purposeless collecting we are not in sympathy, but in this country at least, truly scientific collecting for a definite object has never, to our knowledge, perceptibly diminished the numbers of any species of bird, and it seems a poor policy to turn a reputable ornithologist into a law-breaker or law-hater by refusing to accord him permission to pursue his studies within the limits of the law.

WE have been much impressed recently with the character of the work being done by certain State Bird Clubs or Unions. The purely ornithological results which may accrue from coöperation of this kind are too obvious to require mention; it is rather the benefits derived by the ornithologist to which we would call attention. The knowledge that one's every-day observations are of interest and value to one's fellow members stimulates effort; while in the light of the records of others, one's own records often acquire a new significance. There is, too, the pleasure to be derived from contact with those who possess our tastes. In short, organizations of the kind we have in mind so widely increase the local ornithologist's possibilities for effective work, and so add to his enjoyment of it, that we wish every state had its own Bird Club.

In addition to the opportunities for instruction in bird-lore, offered by Camp Agassiz in the Sierras, mentioned in our last issue, we learn that Mrs. A. H. Walters, joint author of 'Wild Birds in City Parks,' is offering a course on bird study at the summer session of the biological laboratory of the Brooklyn Institute of Arts and Sciences, Cold Spring Harbor, Long Island, N. Y. Full information may be obtained from the director, C. B. Davenport, Station for Experimental Evolution, Cold Spring Harbor, Long Island, N. Y.—*Tucson, Arizona*, May 12, 1906.

# The Audubon Societies

*"You cannot with a scalpel find the poet's soul,  
Nor yet the wild bird's song."*

Edited by MRS. MABEL OSGOOD WRIGHT and WILLIAM DUTCHER

Communications relating to the work of the Audubon and other Bird Protective Societies should be addressed to Mrs. Wright, at Fairfield, Conn. Reports, etc., designed for this department, should be sent at least one month prior to the date of publication.

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### Notice to Members and Teachers

All members and contributors to the working fund of the Association are entitled to receive BIRD-LORE free; therefore, it is unnecessary for them to *subscribe* for the magazine. If they prefer to pay for BIRD-LORE, in order that the entire amount of their dues or subscriptions may be used for bird protection, the extra dollar should be

sent to the office of the Association instead of to Harrisburg. If this is not done it is impossible to keep the mailing list correct.

All teachers who are subscribers to BIRD-LORE, and desire to receive the extra copies of Educational Leaflets and the outline figures for coloring, should send their subscriptions to the Association office. The offer of extras was only made to teachers who subscribe through the National Association.

### The Present Need of the Association

More members are needed at once in order to recuperate the treasury of the Society, which is now at a low ebb, owing to incessant drafts upon it for legitimate expenses. The Finance Committee cannot, with the utmost business perspicacity, make one dollar do the work of two dollars. Our members and contributors are generous and loyal, and they are not expected to do more financially than they have already done this year (1906). There is, however, something each one can do to help in this emergency; it is for each person to get a new member for the Association before the mid-year. We have gained thirteen life members since the last report, but their fees cannot be used, but must be invested, which has been done. One thousand new sustaining members will place our organization on such a sound basis that it can not only carry on its present work, but can expand, especially in its educational efforts among children.—W. D.

### Legislative Season

Although 1906 is one of the off years when only a few States have legislative sessions, yet in some of these the National Association has had to do strenuous work in order to help the State Society defeat bad bills. There has never been a legislative season that more emphatically has shown the absolute necessity for Audubon Societies and their work. If it had not been for the determined opposition and persistent efforts of these Societies, several exceptionally bad bills would have now been laws. There is not the slightest doubt that if the Audubon Societies were to disband, in a very few years all of the present excellent bird laws would be so amended that protection would cease. It is true that game-birds would not suffer to the extent that the non-game-birds would, because real sportsmen would naturally urge good legislation for them. However, sportsmen are not organized so well as the State Audubon Societies and the National Association. It is also a fact that these Societies exert almost as much influence for game-birds as they do for the other species.

NEW JERSEY.—Was a hotbed of vicious

bills. Three were introduced, as follows: To make the Mourning Dove a game-bird, with an open season from August 15 to October 1. The only reason given by the enlightened Assemblyman who introduced the bill was because many of his constituents were glassblowers, and this date was their vacation period and they wished something to shoot. This gentle and beneficial bird was to be sacrificed to make a politician solid with his constituents. Why a bill was introduced to remove all protection from the Kingfisher was never discovered. Both of these vicious measures were finally defeated. The Flicker narrowly escaped being made a game-bird. The bill was introduced in the Assembly very late in the session,—too late, in fact, to start a systematic opposition. This was probably the intent of the introducer. Next to the last day of the session the bill was passed in the Assembly, but thanks to some earnest and vigilant friends of the birds in the Senate, it was defeated there. There were also some good friends of the birds in the Assembly, but unfortunately some of the members of the Assembly Game Committee were not only prejudiced but ignorant. One of them told your President that the Reedbird came from the South, and expressed strong disbelief when he was told that the bird was the Bobolink in its fall plumage. This Committeeman certainly was not a fit person to legislate for birds, or, in fact, on any other subject.

OHIO.—In this State an Assemblyman introduced a bill "To better protect Quail, birds and domestic fowls by the payment of a fee for the heads of Hawks." Section 1 reads as follows: "Any one killing a bird known as a Hawk, shall, on the presentation of such dead bird to the clerk of the township where he or they may reside, be entitled to a certificate to the amount of fifty cents for each Hawk so produced." Like all other bills of this character, it was introduced because of prejudice and a corresponding ignorance of the economic value of most of the *raptores*.

The model law is now in force in Ohio and the only species of Hawks that are not beneficial are in the excepted list. This bad bill was defeated largely through the efforts

of the Ohio Audubon Society and a liberal use of educational leaflets on Hawks. Several bills were introduced for the purpose of improving the present game- and bird-laws, but, unfortunately, they were all lost.

VIRGINIA.—Several bills were introduced for the purpose of establishing a Game Commission to be supported by resident and non-resident hunters' licenses.

Three of the officers of the Association visited Richmond for the purpose of speaking before the Senate Game Committee in behalf of the measures, but the effort was not successful. The work done, however, was not without its value, as it was educational and will have a good effect on future legislation.

Only one amendment to the present game-law was made; in some respects this was beneficial, as it makes it unlawful to kill or capture any wild water-fowl or Wild Turkey at night, or to capture them in traps, nets or other contrivances, or to use reflectors or other lights or sneak-boats or artificial islands, or to use a gun larger than an eight bore. In other respects the amendment was retrograde, as it makes an open season on Robins from February 15 to April 1. This feature was protested against, but without avail.

KENTUCKY.—Some bad bills were introduced in the Assembly, but fortunately they all failed of passage, with the result that the game and bird statutes remain unchanged. One was to repeal the non-sale provision of the present law relative to Wild Ducks, Pheasants, Grouse, Partridges or Quail killed within the state; a second was to repeal the present law prohibiting the taking of Quail, Partridge or Pheasant by means of net, box, trap or snare; another was to repeal the following: "No person shall catch, kill or pursue with such intent, or have the same in possession after it has been caught or killed, any Quail, Partridge or Pheasant between the first day of January and the fifteenth day of November of each year," and still another was to amend the present law relative to Wild Geese and Wild Ducks by making the open season close the first day of May instead of the first day of April.

On the other hand, House Bill No. 403, introduced for the purpose of making the open season on Doves only six weeks instead of six months, was unfortunately defeated. The lack of a large and active Audubon Society in Kentucky is very much felt.

MASSACHUSETTS.—Large numbers of bills relative to birds and game were introduced in both branches of the legislature, and, as usual, they created a great deal of debate. An attempt was made to amend the section of the statute which permits the killing of the Herring Gull and the Great Black-backed Gull between the first day of November and the first day of May following, practically the only time when these birds are found in Massachusetts. It is greatly to be regretted that the bill failed of passage, and that these birds still receive no protection.

Massachusetts is the only Atlantic coast state that does not protect these two species of Gulls. It does not seem right for this Commonwealth to refuse to protect birds that are so carefully guarded by all the other states. Further, it is a great hardship for the Audubon Societies to spend large amounts of money each year to protect the Herring Gull on its breeding-grounds and then to have them killed on the Massachusetts coast after the breeding season is over. The bird-loving public of Massachusetts should take this important matter in hand, and should be so insistent about it that the next General Court would have to respect their wishes.

A decided gain was made relative to shortening the open seasons for wild fowl; an especially wise provision being a close season on the Wood Duck until the first day of September, 1911.

An act to prevent the extermination of the Heath Hen is now a law, having been approved March 7. It reads as follows: "It shall be unlawful to hunt, take or kill that species of Pinnated Grouse called Heath Hen, and scientifically known as *Tympanuchus cupido*, or to buy, sell, otherwise dispose of, or have in possession the same or any part thereof, previous to the first day of November in the year 1911.

"Whoever violates any provision of this act shall be punished by a fine of one hundred

dollars for each bird or part thereof in respect to which such violation occurs."

This law was passed in order to try to prevent the extermination of this species of Grouse, which formerly was common in southern New England and parts of the Middle States but now is confined to a restricted district on the island of Martha's Vineyard.

The experiment of trying to save this race of birds will be an exceedingly interesting one.

There were several bills introduced for the amelioration of the condition of Cats, but none of them received more than humorous consideration.—W. D.

Lack of space prevents publication of very interesting and important legislative notes from New York, Iowa, South Carolina, Georgia, Alabama and Louisiana, also news of interest from the reservations. This matter will appear in the August issue.

**The Mrs. Bradley Fund**

Total subscriptions reported in	
April BIRD-LORE, including	
March 15 . . . . .	\$1,424 00
Subscriptions including May 8 . .	364 25
<b>Total . . . . .</b>	<b>\$1,788 25</b>

**ADDITIONAL SUBSCRIBERS TO FUND**

E. B. F. . . . .	\$5 00
H. S. B. . . . .	5 00
L. S. H. . . . .	2 00
M. M. . . . .	50 00
Montclair, N. J. . . . .	5 00
Salem, Ohio . . . . .	1 00
Sympathizer . . . . .	2 00
Banks, Misses . . . . .	3 00
Banks, Mrs. Talcot . . . . .	1 00
Blossom, Miss Katherine E. . . .	5 00
Brooks, Allan . . . . .	5 00
Bulkley, Mrs. Edwin M. . . . .	10 00
Bullard, E. P. . . . .	1 00
Burr, Mrs. Isaac T. . . . .	2 00
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Collins, Miss Ellen . . . . .	5 00
Conn. Audubon Society . . . . .	19 00
Curtis, Louis . . . . .	10 00

Davis, Eldred H. . . . .	1 00
DeRonde, Mrs. Frank . . . . .	1 00
Duncan, Mrs. Fred S. . . . .	3 00
Ehrich, Louis R. . . . .	3 00
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Kerr, Miss Lois . . . . .	2 00
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Lemmon, Miss Isabel McC. . . . .	3 00
Lyon, William S. . . . .	5 00
Maurice, C. S. . . . .	20 00
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Norwalk (Conn.) Bird Club . . . .	6 00
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Snare, Mrs. Frederick . . . . .	1 00
Social Science Club of Newton, Mass. . . . .	16 00
Speer, Mrs. R. E. . . . .	1 00
Stone, Miss Ellen J. . . . .	10 00
Vermilyea, Mrs. W. Gerard . . . .	1 00
Whitten, Thomas . . . . .	25
Williams, Arthur H. . . . .	1 00
Wood, Mrs. Henry . . . . .	5 00
Yenni, Mrs. Clementine . . . . .	2 00
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	\$364 25

Mrs. Bradley has abandoned the chicken-farm project and has expressed a preference for a home within the city limits of Key West. Accordingly, negotiations are under way for the purchase of a six-room cottage selected by its future occupant. It is the intention of the Association to keep the property in repair, to pay the taxes on it and to give Mrs. Bradley the use of the home during her life, and at her death to convey the property to the two children of Guy M. Bradley should they survive their mother. The cost of the house selected will leave an unused balance of the fund of nearly three hundred and fifty dollars (\$350), which will be invested; the income received will be paid half-yearly to Mrs. Bradley. Any further contributions, and it is hoped there may be some, will be added to the invested fund.—W. D.





ROSE-BREADED GROSBEAK

(UPPER FIGURE, MALE ; LOWER FIGURE, FEMALE)

Order—PASSERES	Family—FRINGILLIDÆ
Genus—ZAMELODIA	Species—LUDOVICIANA



# The Rose-breasted Grosbeak

By WILLIAM DUTCHER

President of the National Association of Audubon Societies

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## National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 20

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After a long period of winter weather, with its bare and brown or snow-covered fields, its frozen streams, and its leafless trees, how the lover of out-of-doors watches for the first indication of the coming of spring! The vitality that has been dormant, but is commencing to awaken with the lengthening of the days, and the increasing power of the sun is watched with daily growing interest. Every new shade of green that the grassy carpet of the earth assumes is a delight, the first dandelion blossom that shows itself on the lawn is a thing of beauty, the opening of the arbutus and the modest violet increases our joy, the arrival of the advance guard of winged hosts that we know will soon follow, thrills us with pleasure and a desire for the culmination, when every tree in orchard or forest is bursting forth with blossom and leaf and every place is vocal with music. Then it is, some morning early in May, we are greeted with a glory of song and the flashing beauty of the Rose-breasted Grosbeak. During the winter months it has lived in the tropical regions of the West Indies, Mexico, Central America and northern South America; but with spring comes the longing for home, and it journeys, by night, through the trackless sky to its birthplace. This is anywhere in eastern United States and the more southern British provinces, from the Atlantic coast to eastern Kansas and Manitoba. During its semi-annual migrations it passes through the gulf states. One of the most wonderful and interesting subjects in Nature is migration. The cause of the migration of birds is still a puzzle to scientists, and, although theories have been advanced from time to time by learned students, yet none have been universally accepted. The changing seasons, from heat to cold, has been suggested as a cause; the lack of food as another. The latter cause might well explain the necessity for the southward movement of birds in the autumn, but it hardly seems a reason for the return of the birds in the spring from tropical countries where Nature is prolific with plant and insect-life. The most attractive theory is that birds return to their breeding-places from a passionate fondness for home, which even the dangers and fatigue of a long journey cannot overcome. Setting aside the reasons for migration, let us consider for a moment migration itself, and the more we think of it the more wonderful it seems. Take, for instance, the Rose-breasted Grosbeak, that has spent the winter in Colombia. How

does it know when to start for its home in the temperate climate where its offspring were reared the previous year? Can it calculate the days and hours that it will take to accomplish the distance? How can it retrace the path traversed the previous autumn? It reaches its old home about the same date each year, having traveled thousands of miles to do so. Most of this journey was made in the night, sometimes at an altitude of many thousand feet. The vision of all birds is very acute, and the Grosbeak may fly from one landmark to another, which, when it is reached, may disclose still another in the distance, and so on until home is reached. These journeys are not continuous; during the daytime the traveler descends to the earth for rest and food and at night resumes its journey again. During the height of the migratory period, the upper air must be filled with thousands of feathered wanderers, who are sometimes met by storms or thick weather when all landmarks must be blotted out. It is known that they then fly at a much lower altitude, for on such occasions they are attracted by light-houses, and thousands of birds of numerous species are killed by flying against the glass of the lantern. This wonderful phenomenon of Nature, migration, is well worth extended study, and the scholar is advised to read the exhaustive treatment of the subject by Prof. Alfred Newton\* and Mr. W. W. Cooke.†

The Rose-breasted Grosbeak selects as its home, most frequently, second growths of oaks on the borders of large timber, but does not confine itself exclusively to such localities. It builds a rather bulky nest of weed-stalks, twigs, rootlets, etc., in bushes or trees from five to twenty feet from the ground. The eggs are usually four in number, of a pale green color profusely speckled with brown.

The song of this bird is the theme of every nature-writer, and all unite in pronouncing it of the highest type. In some respects it resembles that of the Robin, but it is thought to have a more refined and musical quality. The description of the song of the Rose-breasted Grosbeak by Audubon is such a delightful exhibition of the character of the man, showing so perfectly his childlike faith in a Creator, and his absolute absorption in the beauties of Nature, that the passage is given in full:

"One year, in the month of August, I was trudging along the shores of the Mohawk River, when night overtook me. Being little acquainted with that part of the country, I resolved to camp where I was. The evening was calm and beautiful, the sky sparkled with stars, which were reflected by the smooth waters, and the deep shade of the rocks and trees of the opposite shore fell on the bosom of the stream, while gently from afar came on the ear the muttering sound of the cataract. My little fire was soon

\* 'Dictionary of Birds,' Part 2, pages 547-572, London, 1893.

† 'Report on Bird Migration in the Mississippi Valley' in Bull'n. No. 2, United States Department of Agriculture. Division of Economic Ornithology, Washington, 1888.

lighted under a rock, and, spreading out my scanty stock of provisions, I reclined on my grassy couch. As I looked around on the fading features of the beautiful landscape, my heart turned toward my distant home, where my friends were doubtless wishing me, as I wished them, a happy night and peaceful slumbers. Then were heard the barkings of the watchdog, and I tapped my faithful companion to prevent his answering them. The thoughts of my worldly mission then came over my mind, and having thanked the Creator of all for His never-failing mercy, I closed my eyes, and was passing away into the world of dreaming existence, when suddenly there burst on my soul the serenade of the Rose-breasted bird, so rich, so mellow, so loud in the stillness of the night, that sleep fled from my eyelids. Never did I enjoy music more: it thrilled through my heart, and surrounded me with an atmosphere of bliss. One might easily have imagined that even the Owl, charmed by such delightful music, remained reverently silent. Long after the sounds ceased did I enjoy them, and when all had again become still, I stretched out my wearied limbs, and gave myself up to the luxury of repose."

With this delightful tribute of the artist naturalist to the esthetic qualities of this bird, let us turn to its practical or economic value.

The Colorado potato-beetle dwelt near the base of the Rocky Mountains, feeding upon the sand-bur until about the year 1859. At this time it began to be a pest in the potato-fields of the settlers in that region. Having acquired the habit of feeding upon the cultivated potato, it began its eastward march across the continent, spreading from potato-patch to potato-patch. At first the migration took place at about the rate of fifty miles a year, but later it was more rapid; and in 1874 the insect reached the Atlantic coast (Comstock, 'Study of Insects').

The spread of the potato-beetle pest caused an enormous loss to the farmers of the country, not only by the failure of the potato crops, but also by the cost of insecticides, principally Paris green, used to destroy this voracious beetle. It is doubtful whether the farmers of the country would have been able to successfully contend with the potato-beetle had not Nature interposed one of her powerful checks. As the beetle extended its range and became more numerous, the Rose-breasted Grosbeak developed a newly acquired taste for this pest. Professor Beal, of the United States Department of Agriculture, has furnished the following very interesting statement, which shows conclusively the very great value of this bird:

"No stomachs of the Rose-breasted Grosbeak have yet been examined by the Biological Survey, but the bird's habit of eating the Colorado potato-beetle is a matter of common observation. The first published report upon this work was made, as far as I know, by Prof. C. E. Bessey, of the Agricultural College of Iowa, more than twenty-five years ago, when the insect first made its appearance. At about the same time a woman writer in

'Forest and Stream' noted the same habit. A few years later I made some interesting observations in a small field of potatoes near my house. No remedial measures were applied to the crop, but both beetles and birds were given a fair field and no favors. At first the insects increased in numbers in spite of the daily visits of the birds, but when the young of the latter were hatched, the numbers of the beetles began to diminish rapidly, and when the young birds were fledged and were brought by their parents and placed in a row upon the fence around the field, the insects rapidly disappeared, and when I examined the field a week later I could not find a single beetle, either young or adult. About this time the birds began to prey upon some peas in my garden, and I shot one of them and examined the contents of its stomach. It consisted of one large green caterpillar (*Sphingidæ*), several potato beetles, and a few fragments of peas. My conclusion was that the few peas taken had been well paid for. However, I hung an old coat on a pole near the pea vines, and the birds came near them no more. All of the above observations were made in the state of Iowa, which was one of the first states to suffer from the attacks of the beetles on their eastward march.

Since then this habit of the Grosbeak has been confirmed by thousands of observers in all parts of the country where the potato-beetle and the bird are found. As this insect is eaten by but few species of birds, it is especially desirable that this one, that eats it so freely, should be preserved and its increase be encouraged in every possible manner. Forty years ago this bird was rare in New England,—in fact, was entirely unknown in many places, but it is now fairly abundant there, and it may be that it has been attracted to that section of the country by the presence of the potato-beetles, which furnish so large a portion of its food. I believe it is possible to prevent its depredations upon peas (the only harm that I have ever heard it accused of), and its value as an insect-destroyer forbids its wanton destruction."

#### Questions for Teachers and Students

What is the local name of the Rose-breasted Grosbeak in your locality? Describe or imitate its song. What is its alarm or call-note? Can you identify the Rose-breasted Grosbeak, Robin and Scarlet Tanager by their songs if the birds are not seen? How do the songs of the three birds differ? What is the peculiarity of the bill of the Rose-breasted Grosbeak? How does it differ from the bill of the Robin? Compare size and shape of these two birds. Describe nest of Rose-breasted Grosbeak, materials, size, height from ground, location, in bush or tree, kind of tree. Is it saddled or pendent? Trace winter and summer habitat on map. Tell what you know of migration. When does the Rose-breasted Grosbeak arrive in your locality in spring? When does it leave? Describe its food. Make drawings of Colorado beetle in adult and larval form. Does this beetle destroy the fruit or plant? What other food does the Grosbeak eat, insect and vegetable? In what locations have you found the Grosbeak? What is an insecticide? Describe the arbutus; where is it found? When? How many species of violets are found in your locality?

# Bird-Lore



EDITED BY  
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES  
BY

**The Macmillan Company**

HARRISBURG, PA.

NEW YORK

LONDON

# Bird = Lore

July - August, 1906

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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.



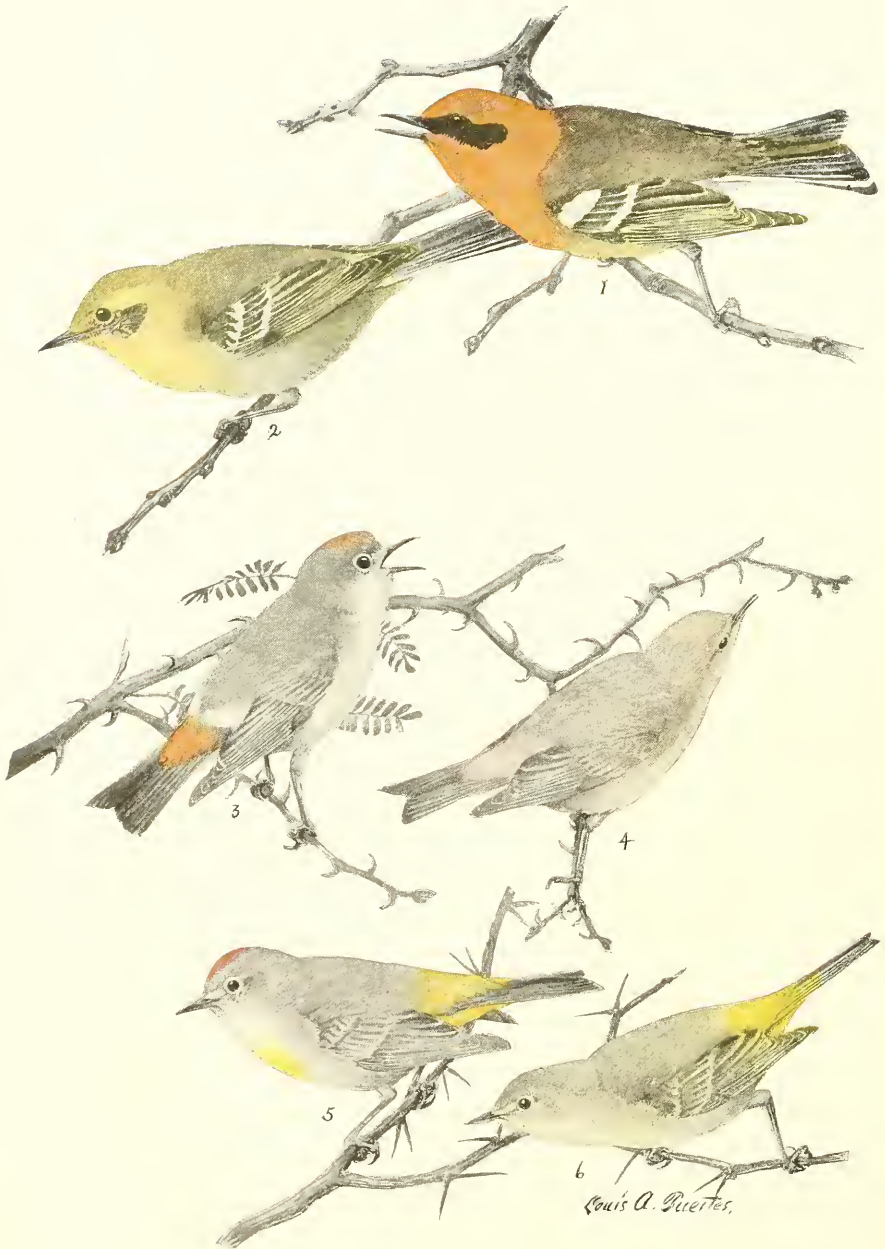
Reduced facsimile of the reproduction of Ernest Thompson Seton's drawing of the Bob-white. Presented to every subscriber to Vol. VIII, 1906, of BIRD-LORE. The original, printed on heavy plate paper, suitable for framing, is nearly life-size.

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

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1. OLIVE WARBLER, ADULT MALE.  
 2. OLIVE WARBLER, ADULT FEMALE.  
 3. LUCY'S WARBLER, ADULT.

4. LUCY'S WARBLER, YOUNG.  
 5. VIRGINIA'S WARBLER, ADULT.  
 6. VIRGINIA'S WARBLER, YOUNG.

(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. VIII

JULY — AUGUST, 1906

No. 4

## A Kingbird Family

By A. D. WHEDON

With Photographs by the Author

THE life of a Kingbird is not the purely tyrannical existence that popular opinion would lead us to believe. In spite of the fact that he is tyrant of tyrants (*Tyrannus tyrannus*) among flycatchers and usually master elsewhere, he often suffers undeservedly, even from others of the feathered kind. However this may seem to those acquainted with the bird, it is certain that misfortunes did not come singly to the pair that nested last spring in my garden.

The only result of their first attempt at home-making was the addition of a set of eggs to the collection of some youthful naturalist. The fruitlessness of the effort did not wholly discourage them, for, late in the season, a new nest was built in an old apple tree. They placed it in the highest suitable crotch, and when I first visited them in early July the nest contained two eggs; a few days later the number was increased to four.

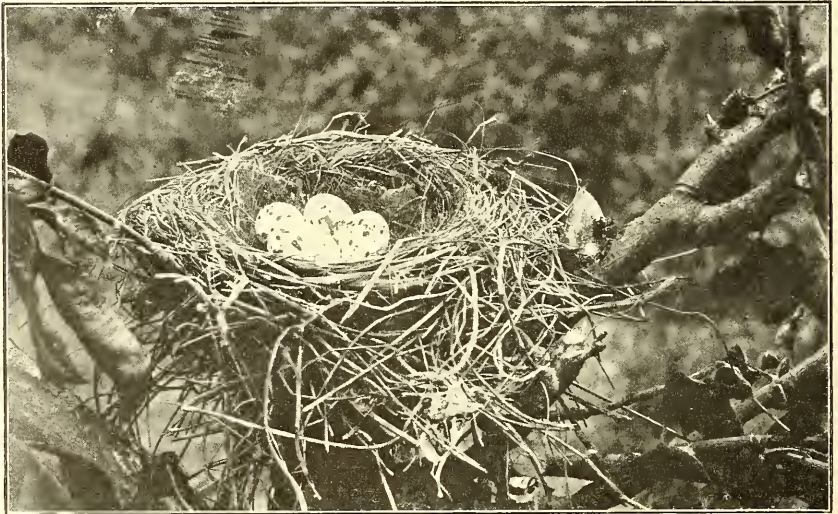
But even their second venture was not an entire success. The new location was frequented by noisy and meddlesome neighbors. Whole flocks of English Sparrows often settled around, and almost upon the nest, being made to retreat from the royal stronghold only by the continual and determined activity of the owners. Just across the garden was a Blue Jay's nest and consequently a center from which more vexations came, while, to prevent anything like peaceful life, a scolding Catbird was a constant occupant of the tree.

The anxiety of the Kingbirds, together with a knowledge of the doubtful character of their avian visitors, made me watch affairs closely, but notwithstanding my care two of the four eggs disappeared soon after being laid, without the culprit being discovered.

As I desired to study the life at the nest, a blind was arranged for myself and camera near the apple tree; and when the eggs had hatched and the two little birds were nine or ten days old I brought their home, branch and

all, down to within range of the lens. The parents, of course, were panic-stricken for a few minutes, but very soon again decided to take the ups and downs of life lightly and settled upon a dead branch just above the nest, only leaving their lookout station to drive away an occasional meddler or to snap up a passing insect.

In less than half a day the female was feeding the young again, rather shyly it is true, but coming often with food. More suspicious than his mate, the male lingered for a while in the tree-top and then, to all appearance, forsook his family, not being seen again until the young were fully feathered and flying as they pleased. During the eight days that passed before this



KINGBIRD'S NEST AND EGGS

occurred, I spent hours in concealment watching the mother about her household duties and seeing the little ones come to maturity.

Some care was necessary in entering the blind, as the female became very much excited if she saw me, and it was rarely that she was far enough away to permit of getting in unperceived. At such times she would sit on the top of a stake near at hand and cry, refusing to return to the young. However, as the days passed her fears lessened, for, though always alarmed as I entered, she became quiet more quickly than at first. She seemed unable to remember for more than fifteen minutes that I was there, invariably going back to work within that time.

The main part of the parents' duty is the supplying of food, and these little birds did not fare poorly even when we neglect to consider the embarrassments under which the mother worked. While I had the family under observation a record was kept of the number of times food was brought,

and, as far as possible, of the kind. The average intervals between her returns was three to four minutes. There seemed to be no limit to the capacity of the young.

The food consisted in large part of grasshoppers, katydids and crickets, with an occasional butterfly or caterpillar. I thought once that a raspberry was given them, but fruit formed no part of the regular diet. The insects were picked up in the grass within sight of the nest, and given to the young with most of the legs and wings on.

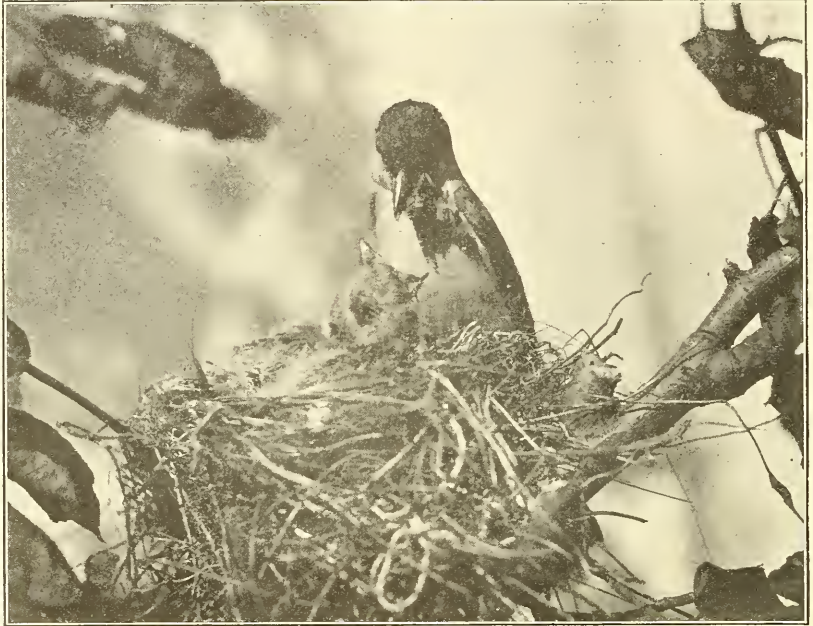


CLEANING THE NEST; YOUNG THIRTEEN DAYS OLD

The mother frequently went through a very amusing performance when feeding her nestlings. Her behavior on alighting at the nest and finding two yellow, wide-open mouths extended toward her as far as the supporting necks would allow, was indicative either of indecision or of a very malicious desire to tease. My first glimpse of these actions was a very interesting one and will serve as an illustration of her habit.

She had brought a large grasshopper and received the usual welcome from the children at home. After a momentary hesitation, it went to the one that held his head the highest and opened his mouth the widest. Sturdy as he was, he could not swallow such a huge and not very smooth

morsel, and so it was very abruptly snatched away and given to the other. Of course the weaker one was unable to do what the older and stronger had failed in, and in turn he lost it to the first. This had been repeated at least three times, when she seized it firmly and, with a motion like that of a Blue



GIVING YOUNG (AGED THIRTEEN DAYS) A BUTTERFLY

Jay when cracking acorns, thrust it head foremost down the gaping throat of her first choice. This performance was witnessed a number of times subsequently, and it often occurred when there could be no doubt that the morsel was small enough to be swallowed by either of the young birds.

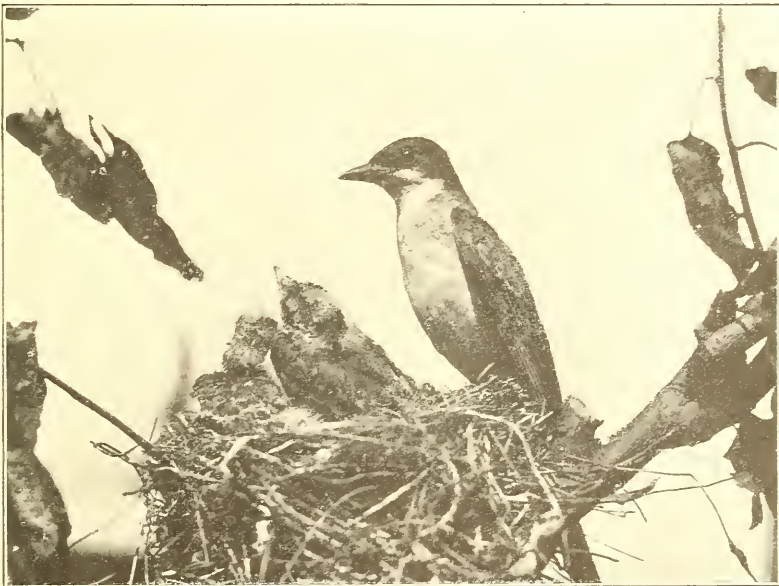
While feeding the young is the heaviest work that falls upon the parent, the care of the nest claims the first attention. The mother never left after feeding without giving the nest a careful scrutiny, and even when too much alarmed by my presence to bring food, she would dart down to remove the refuse that her ever-observant eye had detected from a distance. The excreta were sometimes taken as they left the body of the young. The membranous sac which covers such matter not only aids in its removal but prevents soiling the nest.

Sleep came to the young very readily. If they were not more than usually hungry they would nestle down immediately on being fed, close their eyes and, as far as I could tell, fall fast asleep. But the rustling of the mother's feathers or that of a dry leaf in the wind would cause the two long necks to be stretched and the yellow-lined mouths to open widely with

expectation. If disappointed, they dropped back to their slumber with nothing more than a gentle *peep*.

When her charges were resting quietly, the old bird would often sit perfectly still on a twig above the nest or on the post to one side, her head constantly turning and her bright, dark eyes searching earth and sky. Now and then she would fly at some Brown Thrasher or Catbird that ventured too near, or mount into the air to capture an insect for her own meal.

While the growth of such birds is very rapid, requiring in this instance about eighteen days from the hatching of the eggs to produce fully fledged birds, it is not so remarkable when considered in the light of the quantity of food consumed. The study of such life histories is all the more interesting because the time required for development is short. As the birds grew, much pleasure was taken in noticing the acquisition of voice. When seven or eight days old they were comparatively voiceless, a little later the only cry was a *peep* like that of a chick, and several days before leaving, the young were giving in a rather subdued tone the *ching, ching* of the adult. At



HER DUTIES DONE: YOUNG FIFTEEN DAYS OLD

this time I found it hard, when the old bird was off in search of food, to determine whether I heard her cries in the distance or those from the nest.

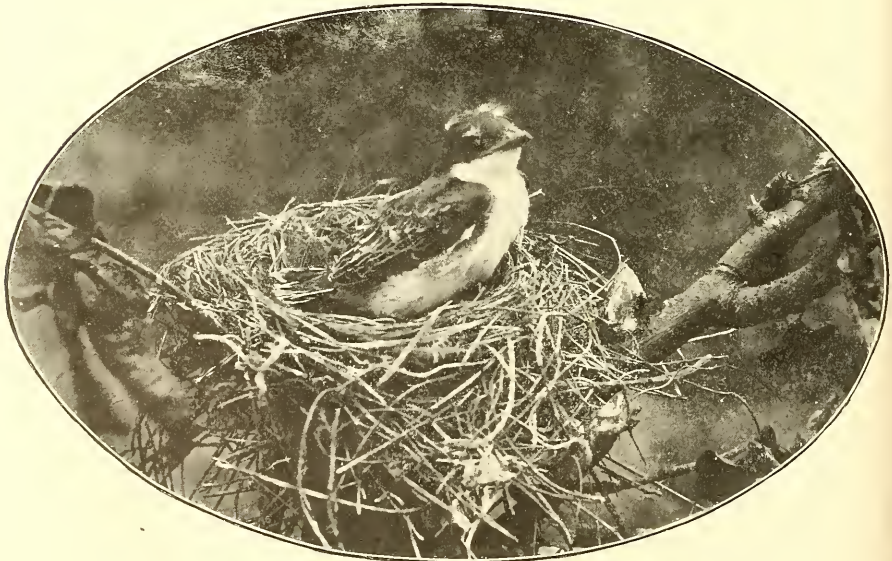
At the pin-feather stage no other exercise was taken than what might be termed cervical and mandibular. But during the last few days of their stay, the young were constantly moving about when not asleep. At first their

exercise was limited to stretching, but, with increasing strength, not only were their legs tested but their wings and whole body.

With the coming of the restless spirit of young animals about to enter life on their own responsibility, came fear. When my observations began fear was not shown, and only when they began to anticipate flight did they do more than nestle closer on my approach. But during the last day or two they even started at the click of the shutter, and the slightest movement on my part put them on the alert. When all was quiet they occupied themselves with exercise rather than in sleeping—climbing to the edge of the nest, stretching both wings, and giving their miniature *ching, ching* perfectly.

On the day the birds took wing, I was in the blind. The sky was cloudy and I waited long, without reward, for a chance to get a picture of the whole family. Seeing that success was out of the question, I stepped from my cramped quarters, bringing my camera with me in the hope that I could get a nearer view of the young, at least. Without hesitation the stronger of the two shot from the nest and off across the garden to the tree where the mother was. The remaining one was photographed as he sat in the middle of the nest eyeing me, his snowy breast fluffed up and the downy tufts that still persisted upon his crown blowing in the breeze. As the shutter closed, he gave me a parting glance and joined the others in the tree.

It was some time before the family left the neighborhood, thus affording occasional glimpses of them. The father returned to the assistance of his mate and the feeding went on much as usual until the young were scarcely distinguishable from the old birds. Then they left us for the season.



THE LAST TO LEAVE HOME; EIGHTEEN DAYS OLD

## My Experience with a Blue-headed Vireo

By EMILY R. LYMAN

ON June 30, 1905, during my summer vacation among the Pocono Mountains, I was so fortunate as to be taken to the spot which had been selected by a pair of Blue-headed Vireos for their building operations. Their nest was firmly suspended from one of the lower branches of a small red maple, about six feet from the ground. The maple stood on the edge of the wood, twenty feet from the public road, where the constant passers-by in no wise disturbed the birds. Near by a cottage was being built, about which workmen were continually hauling and hammering; the noise, apparently, never annoying the birds.

I had been told that the female, while sitting upon her nest, had permitted herself to be gently stroked upon the back, by a bird-lover who had visited her. I felt sure that I, also, could gain her confidence, and enter into friendly relations with her. I determined never to pry into her nest, nor to disturb her in any unnecessary way. My sole aim was to make her feel that she need not fear me.

I began my overtures by walking slowly and silently toward her; my arm slightly extended, my hand closed, my forefinger held out, upon the end of which I had placed crumbs of cracker and hard-boiled egg mashed together. When standing directly under the nest I could just reach up to it, holding my finger within an inch or two of the little mother's head. There I awaited her pleasure.

The first time I offered the food she seemed surprised, but not much startled; for she flew off her nest, only to return in a few moments, to eat from the branch, where I had placed it, the morsel which she had refused from my finger. I repeated the experiment two or three times, when, gaining in confidence, the bird ate directly from my finger. I continued feeding her for quite a while, sometimes twice a day; nearly always finding her upon the nest, willing to indulge in an extra luncheon.

I have not made any account of the male, for my business was not with him; I think he was doing all that was required of him, and in my absence, no doubt, was a devoted mate. Occasionally he would make known his presence, and in answer to his call his wife would join him. My affection was for his better half, for such I believe she was.

Not only did I continue feeding her for days, but I emulated Mr. Torrey's example, got out my old-fashioned silver teaspoon, from which I offered the Vireo dame a liquid mixture of water, cracker and egg. This she daintily partook of, while leaning over the edge of her nest to get it; rather preferring, I imagine, a plainer table, that of the accustomed finger.

Upon one occasion, she seemed particularly happy and confident. While I, a creature large enough to have crushed her in an instant, stood by her

watching her, she calmly closed her eyes and settled herself down for a nap. I had been hoping, from day to day, to have some one photograph her while in the act of feeding, or at least, while upon her nest. But I had taken too much for granted in believing that this happy state of affairs could last. Upon going to the nest one morning, everything seemed strangely quiet—no little mother there: thinking it only right to see what had happened, I pulled down the branch, and looked into the nest, finding left in it but one small dead bird. My feelings of disappointment and regret cannot be expressed; my anger toward the robber knew no bounds.

Scarcely could I leave the spot, where, lingering, I hoped to discover some clue to the tragedy. While I waited, suddenly both birds came back; the mother (as I supposed) flying directly to the nest, looking into it, and picking at something she found there. Immediately it occurred to me, to try feeding her as usual. I walked up to her, offering the accustomed food, which she refused, flying off a short distance, but returning quickly and perching near her nest. I again tried her with the crumbs, which she then took from my finger, just as she had done many times before.

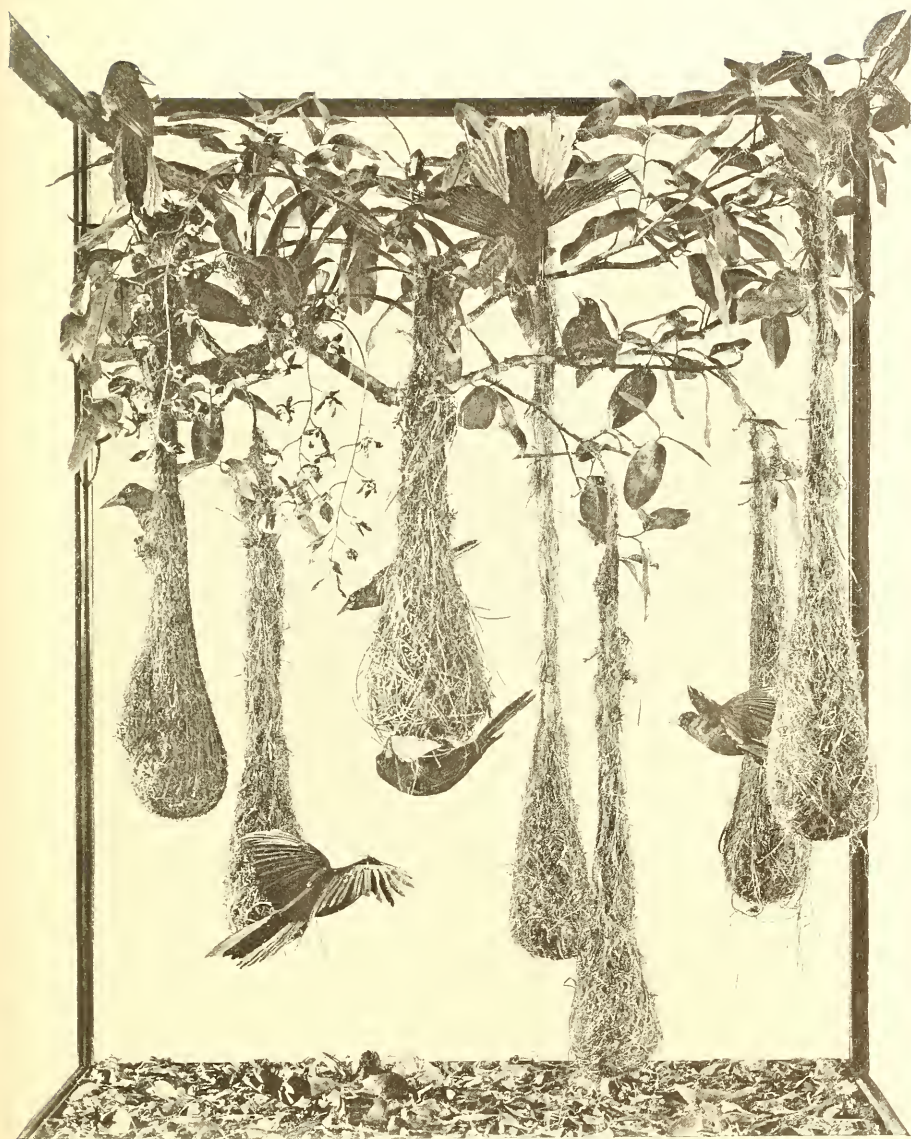
This last act of hers, especially, touched me; it showed such fearless confidence. I experienced a feeling of great relief in believing that she, in no wise, connected me with the ruin of her home.



TOWHEE AND YOUNG

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





NESTS OF THE CASSIQUE (*Ostinops decumanus*)  
From a group in the American Museum of Natural History

## A Bit of Robin History

By EUGENIA CHAPMAN GILLETTE, Lake Geneva, Wisconsin

With photographs from nature by the Author

THEY had gone to housekeeping the preceding summer in the hard maple just opposite my window; and, though they built well above the level of the chimney-top, tragedy overtook them when the young were but half-fledged.

The following season, they built where they could command the protection of their friends who had locks and keys. On Saturday morning, April 18, 1903, as I sat long at the breakfast table, idly watching the boughs blowing about in the high wind, my attention was attracted by a piece of white cord that came sailing across the upper sash of the window. Before I arose from the table the same, or a similar piece of cord blew across that window for the third time. Then I bestirred myself, and went out to see what wind was bringing us such an abundance of white string.

And there was my friend Mrs. Robin, of the previous year. I knew her by having only the left outer tail-feather tipped with white.

She busily wrought, against discouraging odds, at the foundation of a new home, on the ledge of my chamber window, above. Every time she succeeded in getting a considerable collection of material on the ledge, a particularly prankish gust would come along and sweep it clean again. And at nightfall, after a hard day's work, there was the merest suggestion of building material there.

Sunday morning dawned bright and still, and with the first glimmer came Madam Robin with string and coarse grass, which she plastered securely to the ledge with the mud she carried up from beneath our neighbor's pump. "The better the day, the better the deed," and Mrs. Robin worked buoyantly all that bright Sabbath day, making minute-and-a-half trips for her lumber and plaster, and by late afternoon she was lining the nest with fine grass, tucking the ends in carefully with her beak, and 'carding' with her little feet, which flew with lightning speed, as she pressed her breast against the walls, and turned round and round in the nest, moulding it to the right curve.

When all was done she flew up into the maple tree, made repeated descents upon this joy of her heart, alighting first upon the brink, and then cuddling down ecstatically. During all this time her spouse had not appeared, and about sundown she flew away, and was gone for five long days.

I wearied for her return, and wondered if she had found other quarters she considered preferable, or if, perchance, she had gone a-visiting her relations, or was taking the precaution to have the plaster thoroughly dry before moving in. I never learned the reason of her absence, but on the morning of April 24, she came, with Mr. Robin, and took possession of

the home she had built unaided, while he sat up in the maple tree and sang. That evening there was a beautiful blue egg in the nest.

I think Mrs. Robin and I would have become friends sooner, if her interfering spouse had not ruffled up his crown feathers, and wriggled his shoulders, and protested from his maple bough whenever I made any advances. But as it was, by the end of the week she was quite accustomed to my presence, and, if I made no abrupt movements, did not object to my being very near her. As I devoted most of my time to her, it was not so sudden a friendship as might appear, either.

She knew me—or my blue house-gown—from the other members of the household, and recognized in me a harmless, friendly, queer, big bird,



THE SITTING BIRD

with blue calico feathers. She never really liked the click of the camera, and positively declined any lunches of my serving, whether a tempting fat angleworm, or a bit of very ripe fruit. Her wise husband never offered her a bite to eat.

Each day, for four days, a priceless blue gem was placed in their treasure-house, and on April 28, she began to sit very closely, and Mr. Robin's song grew more wildly joyous.

On the 29th, I begged the privilege of photographing her on the nest, and she somewhat reluctantly consented. In the photograph one can see the distinguishing one white moon on the left tip of her tail.

When she heard the camera click she immediately regretted her compliance, and flew away from the detested sound; but it greeted her again on her return, as she stood an instant on the edge of the nest, the breeze stirring the soft red feathers of her breast.

She sat happily, and her mate mounted guard and sang on without interruption—and then came the mystery.

One day, shortly before the birdlings were due, one blue egg disappeared from the nest—disappeared completely and absolutely. Down on my knees, I searched every inch of the lily-of-the-valley bed beneath the window, the lawn for many feet beyond, and under each neighboring tree, for a fragment of blue shell. But the mystery was never solved. The ledge I thought inaccessible to squirrels, and if a Blue Jay had been pillaging I thought I would see some trace of it. On May 9, I hastened home from an absence of several days in a neighboring town, because I thought there should be young birds in the nest that day, and, scarcely waiting to throw off my



TO FILL THOSE ASTONISHINGLY LARGE YELLOW MOUTHS

wraps, I flew up to take a peep at the nest, and behold! three wee wriggly, squirmy, grub-like creatures, where the three blue eggs had been!

I would not photograph them. I thought it would be taking an unfair advantage of the defenceless little hideous beasties.

Now this is where Cock Robin comes in. He turned to and worked valiantly for those little promises, he and their mother alternately bringing worms and Cisco flies, and an occasional mouthful of some over-ripe fruit.

They stretched and wriggled every instant of the fleeting space between the calls to open those astonishingly large yellow mouths, which, supported on their slender doddling necks, looked, as a friend well said, like a bowl of yellow lilies.

They grew apace, became much sunbrowned, acquired some tiny tufts of fuzz along their little spines and over their ears, and at last, on May 16, their eyes opened.

Often both parents would perch on the edge of the nest together, but the male would not tolerate that horrid eye that winked aloud, and I never succeeded in catching him with the camera.

As this week wore on, I ceased to wonder about the disappearance of that fourth egg. The nest was full to overflowing with the three babies. What would have become of a fourth?

There came a rainy spell these latter days, and the little mother was obliged to stay at home and convert herself into an umbrella, standing in among the clamorous young, with wings slightly uplifted, while the male brought the worms.

One stormy night when I went up to close the window, I found Mrs. Robin's tail protruding into the room, beneath the sash. I tried very gently to turn her around, but she flirited her tail out of my hand with a sleepy, querulous sound of protest, and settled it in exactly the same position again, so that window remained open all night, with mop cloths beneath it to catch the rain-water.

It was a marvel how those young birds grew, and feathered out, and 'handsomed up' this fleeting week!

Their last days at home were the most discouraging of all for the photographer, being rainy, lowering black days, almost too dark to attempt instantaneous photography, and only one exposure was in any degree successful,—that taken on May 22, the last day before they left the nest. When they flew, their first venture was in at the open window, where they perched on the back of a willow chair.

As there are too many objects in the House People's abode for untried little bird brains to get knocked against, they were guided to the window, from which their second flight was made into a wider and safer field.

They remained the summer with us,—"*our* Robins," we called them,—and after the first few days of sedulous guarding from marauding cats and bullying Jays, proved their ability to take care of themselves.



## Not of a Feather

By FLORENCE A. VAN SANT

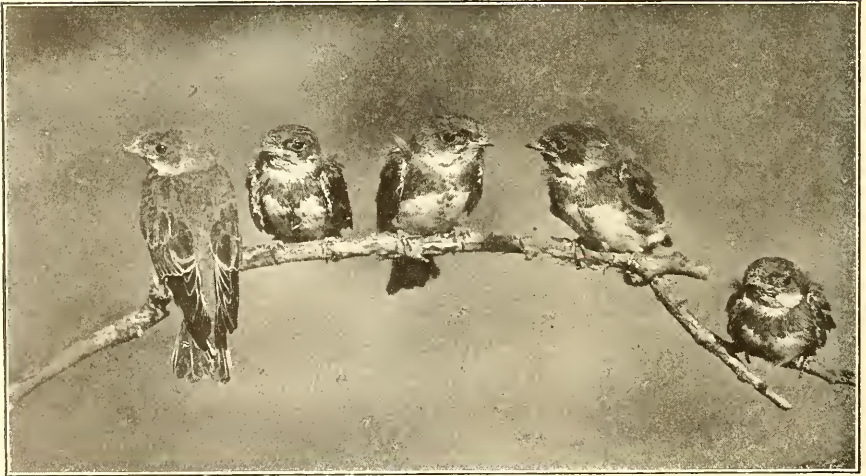
A Mourning Dove and a Laughing Gull  
Met during bird migration,  
And, out of courtesy, they both  
Joined in a conversation.

The Dove, the land-bird, said, "I dwell  
By fields of golden grain";  
The Gull said, "I'm a mariner  
And roam a vast domain."

In everything they disagreed  
From sentiment to diet;  
One loved the tumult of the sea,  
The other liked things quiet.

When one was happy he would mourn,  
A truth as strange as fiction;  
The other, he would laugh when sad,  
'Twas quite a contradiction.

The Dove said, "I am glad we met,"  
And then moaned, "*Coo a-coo*";  
The Gull at parting felt too bad,  
But laughed, "Hah, hah, adieu!"



YOUNG BANK SWALLOWS

Photographed by James H. Miller, Lowville, N. Y.

# The Yellow-breasted Chat

## A Character Sketch

By P. A. TAVERNER

THE Chat is the most elusive of birds. He is brought up most strictly upon the principle that Chats "should be heard, and not seen," and, unlike the infantile hopeful of the "lords of creation," really learns and practices this version of the old saying most steadfastly. You will hear his voice from a near-by tangle whistling to you. But as you pursue, it passes from bush to bush like a 'Will-o'-the Wisp' leading into all sorts of morasses of blackberry tangle, and mosquitos. Now you hear the bird close, just out of sight behind the foliage; there it will chatter and gurgle, giving fine monologic selections for your benefit, or else taunt you most fearlessly with his private opinion of you, your family, and all your ancestors *seriatim* in a most provoking manner. He does not deal in broad generalizations, but goes into most minute details of your family history, and most carefully drags into the garish light of day each and every gristly skeleton the family closet most decently strives to hide—the calumniator always keeping just, and only just, out of sight.

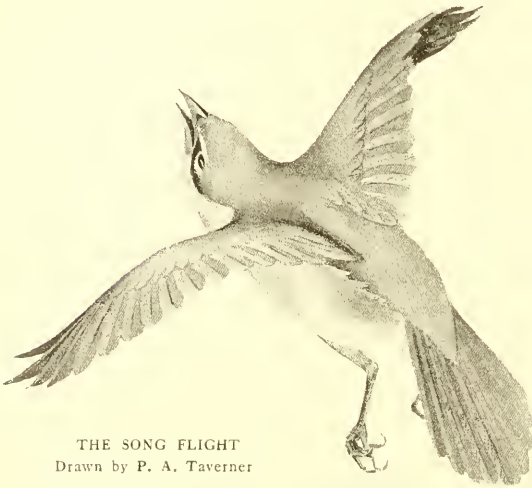
However cautiously you circle the bush, the result is the same; he is still on the opposite side, until an incautious movement on your part alarms him or perhaps he wearies for the time of the hide-and-seek, and the soliloquy is brought to a finish, and a loud quietness reigns. Perhaps you catch a glimpse of a neutral olive streak crossing just over the tops of the near-by bushes, but more often not, and the only indication of the scoffer's new position is given by the sound of his mocking whistles, and cat-calls from a bushy clump a hundred yards away. The Chat has spells of quietness, too, when one may be for hours in its chosen haunts and not suspect its presence. Then all at once it will start up again and take the most prominent place in the avifaunal chorus.

I suspect that its mercurial nature is peculiarly susceptible to meteorological changes, for my experience has been that the bird is very noisy at times just preceding a thunder-storm. In fact, I always associate the bird with intense sultry heat, dense shadeless tangle, innumerable mosquitos and big thunder-heads piled up in high masses from the horizon. No bird has a more marked individuality or possesses more of wild charm that, in spite of these usually unpleasant associations, always arouses my enthusiasm and admiration.

With his stealthy elusiveness, wild outpourings of song and fund of vituperation, the Chat is a droll imp—a merry troll that "has the recipe for fern seed and walks invisible, yet mocks you from every bush." He is full of life and boiling over with animation. It bubbles out of his throat in all

manner of indescribable sounds. He laughs dryly, gurgles derisively, whistles triumphantly, chatters provokingly, and chuckles complacently, all in one breath. He throws himself about through the bush regardless of consequences, never still, scrutinizing the intruder in all attitudes. Viewing him now from under a branch, and then from over it, talking always excitedly, rather incoherently and usually indelicately. In fact, one throat is not sufficient to relieve the pressure of his feelings, and he presses into service his long tail, and with it wig-wags things such as even he, irresponsible little sprite that he is, dare not say out loud.

Should I stop here, however, in my description, an entirely inadequate and one-sided impression would be made of a very complex and many-sided individual. It is only the presence of man that brings these evil characters to the surface, and arouses the worst in him. When alone in his own solitudes the better side of his nature is exhibited, and he shows himself in other colors, a happy roisterer, a fervid lover, a solicitous parent. As a husband, however, I should judge the Chat to be somewhat of a braggadocio, and should suspect him of bulldozing his wife if it were not for the reflection that she is a Chat also, and is, therefore, perfectly able to take care of herself. As it is, they seem to be a happy pair, and get along together fully as well as other couples that promise better as examples of domestic felicity. His love-song is a woodland idyl and makes up for much of his shortcomings. From some elevated perch from which he can survey the surrounding waste for a considerable distance, he flings himself into the air—straight up he goes on fluttering wings—legs dangling, head raised, his whole being tense and spasmodic with ecstasy. As he rises he pours forth a flood of musical gurgles, and whistles that drop from him in silvery cascades to the ground, like sounds of fairy chimes. As he reaches the apex of his flight his wings redouble their beatings, working straight up and down, while the legs hanging limply down remind the observer of those drawings we sometimes see from the brushes of Japanese artists. He holds his hovering position for an instant, then the music gradually dies away; and, as he sinks toward the ground, he regains his natural poise, and seeks another



THE SONG FLIGHT  
 Drawn by P. A. Taverner

tion that she is a Chat also, and is, therefore, perfectly able to take care of herself. As it is, they seem to be a happy pair, and get along together fully as well as other couples that promise better as examples of domestic felicity. His love-song is a woodland idyl and makes up for much of his shortcomings. From some elevated perch from which he can survey the surrounding waste for a considerable distance, he flings himself into the air—straight up he goes on fluttering wings—legs dangling, head raised, his whole being tense and spasmodic with ecstasy. As he rises he pours forth a flood of musical gurgles, and whistles that drop from him in silvery cascades to the ground, like sounds of fairy chimes. As he reaches the apex of his flight his wings redouble their beatings, working straight up and down, while the legs hanging limply down remind the observer of those drawings we sometimes see from the brushes of Japanese artists. He holds his hovering position for an instant, then the music gradually dies away; and, as he sinks toward the ground, he regains his natural poise, and seeks another



perch like that from which he started. What mistress could turn a deaf ear to such love-making as that? And we can rest assured that his does not. Proof? You will find it in some near-by bush but a few feet from the ground. A nest rather roughly but strongly made, sufficient for its purpose, and filled with four or five creamy eggs marked with reddish brown spots and a few lilac flecks, which the mother bird nestles into her golden bosom as tenderly as though neither she nor her jolly spouse ever thought such things as are imputed in former paragraphs. On second thought, perhaps, the previous reflections are base slanders. One cannot gaze upon the happy pair when they suspect no human biped is near, without wondering whether, if we really understood Chat language, we would interpret it just as we do. It may all mean entirely different subject matter,—and then, again, it may not. To human ears it sounds bad and, as Dr. J. M. Wheaton has pointed out, the Chat has a black mouth, and that certainly was not given him for nothing.

I have often seen it stated that the Chat was a ventriloquist. Some other birds are also pretty generally accused of the same offense, but I could never really substantiate this in any case. True, the notes of some species are difficult to place, but I have observed that it is only the distance that the originator of the sound is from the hearer that is actually misleading, and not the direction from which it comes. True, again, it is somewhat difficult to locate the direction in certain low sibilant notes that seem to have great carrying power, but I never observed any more than this, and I never heard a bird note that actually seemed to come from a false quarter. When one can hardly locate a sound, and sees a locality that looks as though it might contain the origin of it, we are very apt to make our eyesight and judgment influence our ears, and jump at a false conclusion; but this is an entirely different matter from true ventriloquism inasmuch as the origin of the imposture lies in the self-deceit of the hearer, and not in any actively misleading quality in the sound itself.



# For Teachers and Students

## The Migration of Warblers

SEVENTEENTH PAPER

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

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

### LUCY'S WARBLER

Western United States, breeds commonly in Arizona and rarely north to the lower Santa Clara Valley, southwestern Utah. Winters in northwestern Mexico. Its arrival in Arizona was noted at Fort Lowell, March 20, 1902; Oracle, April 1, 1899; Fort Mojave, March 25; Whipple Barracks, March 31, 1892, and in the Huachuca Mountains, April 8, 1902.

### VIRGINIA'S WARBLER

Rocky Mountains of the United States, north to Colorado (common), Utah (Wasatch Mts., Salt Lake City) and Nevada (East Humboldt Mountains). Winters in Mexico. The first migrant was seen at Cooney, New Mex., April 10, 1889; Huachuca, Ariz., April 10, 1902; Beulah, Colo., May 6, 1905; Monon, Colo., May 3, 1905.

### OLIVE WARBLER

Breeds in central Mexico and in southern Arizona. Winters in the highlands of Mexico and Guatemala. A few may winter in southern Arizona, as one was taken there February 21. The arrival of the first was noted April 6, 1902, in the Huachuca Mountains, Arizona.



1. DOWN-COVERED NEST OF BLUE-WINGED TEAL, AS LEFT BY THE INCUBATING BIRD WHILE ABSENT FEEDING



2. THE DOWN RAISED, SHOWING THE ELEVEN EGGS IT HAD CONCEALED  
Photographed by F. M. C., at Shoal Lake, Manitoba

# Notes from Field and Study

'Nothing New Under the Sun'

Recently while delving among the old books in the library of the Academy of Natural Sciences of Philadelphia, in search of some of the forgotten bird names, which are at once the delight of some ornithologists and the despair of others, I came across a curious little volume printed in old German black letter and bearing date of 1706—just two hundred years ago!

This work deals exclusively with the capture and slaughter of wild birds, and a

dible purpose of photographing birds, but which, as it now appears, is not an invention of the twentieth nor yet of the nineteenth century!—WITMER STONE, *Philadelphia, Pa.*

## A Little Black Rail in Massachusetts

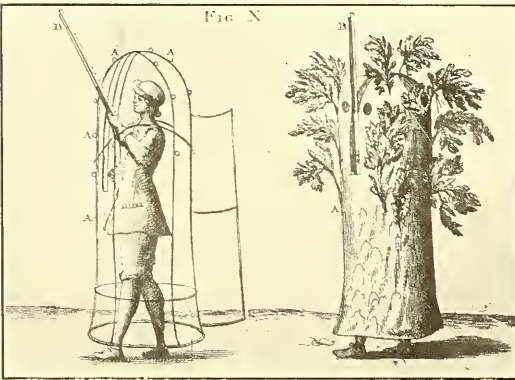
An extract from my log of May 16, 1904, reads: "As I was standing by the B-s spring today, I heard something among the branches of a small pine near by. On looking up, I saw a small bird come tumbling down through the soft pine tips, now

and then clinging to one for a second. Finally he landed on the ground. Here he stopped for a minute on the wet pine needles as if to recover his balance, and then made for cover. While this was going on I had stood watching the proceedings with interest, but as soon as the bird started to run I saw at once, by his diminutive size and peculiar shape, that he must be something unusual. I quickly gave chase, and, with the help of my terrier, soon cornered the bird in some underbrush; but, after getting close enough to touch him with my

hand, he escaped to another hiding-place. Knowing now that he was the rare Black Rail, I redoubled my zeal, and, at last, after an exciting quarter of an hour, I caught the little fellow.

"The strange thing about the chase was that he never attempted to fly more than a few yards. If chased into the open, he would take wing and flutter into the nearest cover, but never once did he try a prolonged flight. In running on the ground he was very skilful, and, had it not been for the open character of the piney hillside on which he fell, I never should have seen him an instant after he struck the ground.

"The only explanation that I can give of the little Rail's strange appearance is that, tired out by a long migration and bewildered in the fog, he had lost his way



glance at its numerous plates shows that it was prepared before Audubon societies or similar organizations were even thought of. There are shown all manner of spring guns, cage traps, nets, bird-lime devices, automatic arrows which shoot up a hollow post and impale a bird which alights on top, and horizontal perches which close together and catch birds by the toes. Also a great board full of spikes, which descend on a flock of feeding birds, and an open wire affair like the arm of a windmill, which when liberated revolves rapidly, knocking down the birds which are feeding on bait close to it. What interested me most, however, was the device shown in the accompanying figure, which is almost a counterpart of that used by Mr. Chapman and others a few years ago for the far more lau-

and fallen to earth exhausted. This theory complies well with the weather conditions. There was a northeast breeze driving in a fog from the ocean, and, whenever the fog lifted, hurrying clouds could be seen passing across the sky."

This little incident took place near Milton Hill, in eastern Massachusetts, at a point about four miles from the nearest seashore. Before releasing my chance captive, I determined to study him for a time. I therefore made a cage of fine wire, large enough to hold a pan of water and a little forest of ferns.

The bird seemed happy in his new quarters, but the food question was at first a difficult problem. Knowing that his relative, the sora, was very fond of wild rice, I tried him on cooking rice, but this he refused to eat. While I was watching him, however, he solved the question for me. Peeping timidly about the ferns, he saw a little insect on the under side of a leaf, and quickly snatched it. He was insectivorous! I went out to the garden and got some insects and worms; a few of these I dropped into his cage. The result was gratifying in the extreme; he rushed at them and, taking a large worm by one end, he quickly ate it. Two or three more worms followed, and, as each was taken as eagerly as the first, I emptied my can into the cage. By keeping him in a corner until all the worms had hidden, I made him hunt for his food in his natural manner.

He lived in good health for three days, but on the fourth he died, after eating several hard bugs. It seems very probable that these were the cause of his death.

During his period of captivity he only twice made any sound; both these times it was a hoarse *cra-a-a*, made when angry and frightened. I several times saw him run through the ferns a few inches from the ground, by grasping the stalks on right and left. He was always very stealthy in his actions, and to see him peering about among the green ferns, with his frightened red eyes, was indeed singular. He often flew around the cage, and at these times his flight was fluttering and as silent as that of a butterfly.

He was a very attractive pet and, if he had only lived longer, some very interesting facts concerning this little-known species might have been discovered. — STANLEY COBB, *Milton, Mass.*

#### Martins and English Sparrows

While traveling in northern Minnesota during July and August, 1905, I noticed how common a practice it was with the farmers to put up boxes for the Martins, and all these seemed to be occupied.

I questioned one man about his colony of Martins, and he told me he thought he must have thirty now (this was after the young had left the nest), but he came near losing them in the spring. A flock of about a dozen English Sparrows arrived about the time the Martins had commenced to build and started to drive them out, but he shot four or five and the rest disappeared. He said they were the first he had seen in this section of the country.

I also found, at a house about two miles distant from this man's, that a smaller flock of Martins had been driven from a large house to a much smaller one near it by two pairs of English Sparrows which I saw nesting in the larger box. This man also said that these were the first English Sparrows he had seen in the country, although he had seen them at the nearest railroad station, which was thirty miles distant.

This only helps to show in a small way how the English Sparrow is advancing from the large cities into the sparsely settled sections of the country and its effect upon our native birds.—A. W. HONYWILL, *New Haven, Conn.*

#### Do Snakes Charm Birds?

In my reading on venomous snakes I again and again noticed the statement that snakes could charm birds. This summer I decided to look into this matter more fully and try and find a solution more satisfactory to myself if possible. I caught a young Catbird which had left the nest, and put it in a cage. I took a position near the cage and remained perfectly quiet, but did not try

to conceal myself. The parent birds became quite brave in trying to drive me away; after noticing that I remained perfectly quiet they became more daring as time passed, and finally so daring as to peck me in the face. These birds were many times within the striking distance of a rattlesnake.

I next took my position near a Robin's nest containing young. After I had remained quiet for some time, the female came very close—close enough for the rattler's forward cast.

I have repeated these observations in the field, with the same results. I therefore have concluded that snakes have no charm, but that the snake in search of food or in its wanderings approaches a young bird or a bird's nest. The parent birds, in trying to drive the intruder away, become more daring until finally they come within striking distance. I have had one experience, and in this case the snake remained perfectly quiet while the bird was flying about it. The snake, however, was not a venomous one.—J. PARSONS SCHAEFFER, *East Greenville, Pa.*

#### Photographing a Red-tailed Hawk's Nest

Bird-lovers have their 'Mecca,' some favored place where bird life is abundant and undisturbed and where flower and beauty of surroundings add their charm. Our 'Mecca' is all of this, where an upland farm runs down to a perpendicular ledge, 100 feet high beneath which brush lots run into a swamp and woodland.

Beneath the ledges a colony of Hooded Warblers had nested for years, and Black-throated Green, Worm-eating, Blue-winged and most all of the common birds nest freely. In the midst of this place in a tall chestnut tree a pair of Red-shouldered Hawks repaired their nest year after year, and when in 1904 we found the nest repaired and a new kind of scream came down to us as a large Hawk flew high above, we were loath to believe it could be a Red-tailed Hawk, until from the top of the ledge we had seen the sun strike the reddish tail feathers, as the birds flew screaming back and forth, and had found a tail feather beneath the nest, for it is very rarely

that the Red-tail nests in this vicinity. This spring (1905) the same birds (presumably) repaired the same nest and we determined to photograph the nest and young if possible, so on May 14, we made the attack with climbing irons and ropes. There was no possible chance to work from the nest tree, but a straight chestnut stood some fifteen feet away and this I climbed, though not without some misgivings, for I was not at all sure but that the old birds might attack me.

As I climbed, the screaming birds flew higher and higher until they were almost out of sight in the blue; and in fact, it was very difficult at any time to get near enough to see the old bird on the nest, as she would leave her nest at the first sight of us. At a height of fifty-four feet I could look into the nest, and only one newly hatched, downy chick was there; so, tying myself to a limb above and resting on the spurs, I strapped my tripod to the trunk and, using my coat as a focusing cloth, secured the picture of the nest and chick, while my friend photographed me and the nest from the ground; which shows well both the height of the nest and the difficulties under which my picture was obtained.—WILBUR F. SMITH, *South Norwalk, Conn.*

#### Notes from Plainfield, New Jersey

Least Flycatcher.—This species has been far less numerous this year than usual. The Kingbird also appears to be less common than it was a few years ago.

Carolina Wren.—On June 10 I found the first nest of this species ever known of here. The four young left the nest safely on June 22. As far as I know, this family of Carolina Wrens is the only one within eight or ten miles of Plainfield, although it is not improbable that there are a very few others.

I first met with this Wren in the vicinity of Plainfield on July 4, 1898. It steadily increased in numbers from that date until February, 1904, during which month the heavy snows cut off the food supply and all perished from starvation and cold with the exception of the pair mentioned above and possibly a few others.—W. DEW. MILLER, *Plainfield N. J.*

## Book News and Reviews

THE B. O. C. MIGRATION REPORT FOR 1905. Bull. British Ornithologists' Club, Vol. XVII, Report on the Immigrations of Summer Residents in the Spring of 1905. Edited by W. R. OGILVIE-GRANT. Witherby & Co., 326 High Holborn, London, 1906. 8vo, 127 pages, 32 maps.

Students of migration will find much of interest in the first report of the Committee on Migration of the British Ornithologists' Club. This committee was appointed in order to obtain from lighthouses along the coasts and from inland observers in England and Wales, certain detailed information which was lacking in the inquiry conducted by the Migration Committee of the British Association some years ago. The present report deals chiefly with twenty-nine species of summer visitors, and an effort has been made to ascertain "when and where these birds entered the country, how they dispersed themselves over it, when they reached their breeding-places, and finally, how some of them passed through and out of the country." The account of each species is accompanied by a map on which the data are plotted by symbols ingeniously devised to show the locality, date, direction of flight, and the different immigrations, which, in the case of the wheatear, are separated into six distinct movements. The number of observers and the comparatively limited area covered, have enabled the committee to work out the migration of the species observed with greater detail than has ever been attempted in the United States, although, as in all work of the kind, the reports show many gaps to be filled in from future observations.—T. S. P.

BIRD-GUIDE, PART I. WATER BIRDS, GAME BIRDS AND BIRDS OF PREY EAST OF THE ROCKIES. By CHESTER A. REED, B. S. Charles K. Reed, Worcester, Mass., 1906. Oblong,  $5\frac{1}{2} \times 3\frac{1}{4}$  inches. 254 pages.

This book should prove a very useful and handy pocket guide to the birds of the extensive region east of the Rocky Mountains. Its small size and flexible covers adapt it to

this end no less admirably than its method of illustration and treatment. The first volume embraces all the orders from the Grebes to the Owls, inclusive, in the order of the American Ornithologists' Union's Check List.

The introductory matter includes a figure showing the topography of a bird, and a synopsis of the orders and families, illustrated with small line-cuts of bills and feet.

With few exceptions, one page is devoted to each species. Sub-species are briefly mentioned under the head of the species. The illustrations are of uniform size, and occupy the terminal third of each page. These are not intended as finished works of art, but as aids to identification. No attempt has been made to represent every tint and shade, but to give the general effect by the addition of one or two colors, when needed, to the black and white of the cut. The result is, in most cases, very satisfactory; in fact, a large proportion of the figures will be as useful for purposes of identification as the most expensive plates.

After the common and scientific names, the bird's length is given in inches. Below these is a short description of the bird and its distinguishing characteristics, its haunts, food and habits, all in one paragraph. In many cases, a few words are then devoted to "Notes." Under "Nest," the nest and eggs are briefly described, and frequently the breeding date is given. The final paragraph is devoted to "Range."—W. DEW. M.

BABY BIRD-FINDER. Illustrated. Volume II. A Pocket Guide to the Common Water and Game Birds and Hawks and Owls of New England, with blank pages for notes. By HARRIET E. RICHARDS, Associate of American Ornithologists' Union. W. A. Butterfield, Publisher, 59 Bromfield St., Boston, Mass., 1906. 129 leaves.  $2\frac{1}{4} \times 4\frac{1}{8}$  inches.

This is a companion volume to the "Baby Path-Finder to the Birds" (the name of which has since been changed to 'Baby Bird-Finder'), which comprised the song-birds. The treatment is identical with that of the

first volume, and, like it, this will doubtless be found by beginners to be a convenient little book for use in the field.

The illustrations are small half-tones, instead of outline figures as in the earlier volume.—W. DE W. M.

#### Tenth Annual Report of the New York Zoölogical Society, 1905.

From this report we learn that the bird collection of the Zoölogical Society now numbers 1,555 specimens, representing 355 species, an increase of 150 per cent in number of individuals and of over 100 per cent in species since January 1, 1905.

The report contains an interesting article by C. William Beebe, Curator of Birds, on 'The Swans,' illustrated by reproductions of photographs. The seven living species of Swans are arranged in two genera, one including only the famous Black Swan of Australia, the other (divided by some authorities into three genera) comprising the Black-necked Swan of southern South America and the five pure white species inhabiting the northern regions of both hemispheres.

We are told that the Black Swan is nearing extinction in its native Australian home, this deplorable state of affairs being due largely to the helpless condition of the birds during the period of molt. On the other hand, the introduction of this species in New Zealand has been only too successful, as the following quotation will show:

"Mr. E. F. Stead, who has personally witnessed present conditions in New Zealand, reports that Swans may now be seen there in great flocks, sometimes of five and six thousand individuals. They are driving away all ducks and geese, not by actual aggressiveness, but more surely by preempting all feeding grounds and nesting places.

"To mention a specific location, on Lake Ellsmere there are hundreds of Swans nesting *throughout the year*. The birds are comparatively tame, notwithstanding the fact that all protection has been removed from them, and numbers are constantly shot wantonly, even while sitting upon their eggs"—W. DE W. M.

#### The Ornithological Magazines

THE CONDOR.—The May number of 'The Condor' contains five general articles of varied interest. The leading article on 'The Chickadee at Home,' by W. L. Finley, treats of the breeding habits of the Oregon Chickadee and is illustrated by four half-tones. Under the title, 'The English Sparrow in the Southwest,' Howard presents some notes on the dates of appearance of this pest at Bakersfield (1901) and Tehachapi, Calif. (1903), and at Tucson and Tombstone, Ariz. (1904). The species is gradually extending its range in the Southwest, but it has not yet appeared south of Tehachapi, and apparently it has not been recorded from Idaho or Nevada. In these sections, as well as in Arizona and New Mexico, a little well-directed effort will prevent it from gaining a foothold for some years.

The little-known nesting habits of 'The Calaveras Warbler in Western Washington' are described by C. W. and J. H. Bowles, who call attention to the rarity of the nest, as shown by the fact that only five sets of eggs were obtained during nine years of field work. 'The Nuttall Sparrow around San Francisco' is the subject of a short article by Louis Bolander, who mentions some of the habits of this characteristic species of the Bay region. The second of McGregor's interesting 'Papers on Philippine Birds' is devoted to 'The Routine of a Collector's Work,' and describes some of the difficulties and peculiar conditions to be met in bird-collecting in the Philippines.

In the editorial columns is a statement of some of the losses to ornithology caused by the great fire which swept over San Francisco immediately after the earthquake of April 18, 1906. These losses include the destruction of the museum and library of the California Academy of Sciences, which contained about 25,000 bird skins, including the finest series of Pacific coast water-birds in the world, and the best ornithological library on the west coast; and the loss of two copies of the folio edition of Audubon's Birds of America in the Mechanics Library and in the Mark Hopkins Art Institute.—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

Vol. VIII Published August 1, 1906 No. 4

## SUBSCRIPTION RATES

Price in the United States, Canada and Mexico twenty cents a number, one dollar a year, postage paid.

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Bird-Lore's Motto:

*A Bird in the Bush is Worth Two in the Hand*

AUGUST has never received its due from the bird student. Heat, mosquitos and dense vegetation, together with a certain subsidence in enthusiasm, following the developments of the nesting season, discourage active field work during this month; nevertheless, ornithologically, August is one of the most interesting months of the year.

The spring migration follows the comparatively barren winter time as a feast after famine, but the beginnings of the fall migration are obscured in a period when birds seem actually to be becoming daily less abundant. As a matter of fact, they are increasing in numbers.

In the marshes this is apparent enough, as the Swallows, Blackbirds and Bobolinks gather there, but it is much less evident in the woods, where only the most careful observation will reveal the presence of the first migrant Warblers, Flycatchers and other early transients.

A RECENT experience in the Klamath Lake region emphasizes the truth of Mr. W. L. Finley's statement (See BIRD-LORE for December, 1905) that the traffic in Grebes' plumage was to be controlled in New York City, not on the bird's nesting-ground. At the date of Mr. Finley's observations in this region, no Grebes, we understand, were being killed, not because of any restrictions imposed by law, but simply, it appears, because the price per skin was too low to make hunting profitable. Mr. Finley writes of finding sixty Grebes' nests in a single small

tule island, and his admirable pictures show numbers of the birds. We, however, found but one nest and saw only an occasional wary bird. Skinned bodies floating here and there told the story of their disappearance, which was finally put into words by a Grebe-hunter himself on whom we chanced one morning. Resting on his oars, he summed up the situation by saying that when the price of Grebes fell to fifteen cents each they were not worth hunting, but now, that they had gone up to fifty cents, there was money in it.

Living in a house-boat, hidden somewhere in the trackless marshes, this degenerate representative of the pioneer trapper seemed far from the world of millinery adornment, but no stock-broker keeps his eye on the tape more keenly than he on the quotations of the New York feather markets, which the dealers see that he duly receives, and the moment the figures appear favorable he becomes a factor in the situation.

When we have convinced the wearer of the borrowed plumes of her moral responsibilities in the matter, we may turn our attention to the esthetic education of the man who has secured them for her. In the meantime, an appeal to the law, in Oregon at least, seems of no avail. We had supposed that after the passage of the A. O. U. Model Law in Oregon, Grebes were protected, but an opinion lately rendered to the game-warden at Klamath Falls by the attorney-general of the state, denies the birds legal protection, on just what ground we are not at this moment aware.

In the present instance, however, the effects of the demands of fashion became insignificant when compared with those which will shortly follow the demands of an increasing human population. The government has selected Lower Klamath and Tule lakes for "reclamation" by drainage. The work is already well advanced, and the birds will soon find that they have failed to secure title to their homes through proper entry at the land office. The nine points of possession will yield to the one of might, and alfalfa will grow where the Pelicans, Gulls, Terns and Cormorants now rear their young.—*San Francisco, July 12, 1906.*

# The Audubon Societies

*"You cannot with a scalpel find the poet's soul,  
Nor yet the wild bird's song."*

Edited by MRS. MABEL OSGOOD WRIGHT and WILLIAM DUTCHER

Communications relating to the work of the Audubon and other Bird Protective Societies should be addressed to Mrs. Wright, at Fairfield, Conn. Reports, etc., designed for this department, should be sent at least one month prior to the date of publication.

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## In Memoriam

It is our painful duty to announce the death on July 2 of Mrs. Edward Robins, secretary of Pennsylvania Audubon Society.

To all who knew Mrs. Robins, her work in behalf of birds and animals for a number of years is familiar. Ten years ago entirely through her energy the Pennsylvania Audubon Society was established at a time when only one other organization of the kind was in existence, and she continued actively in charge of its work until failing health compelled her to relinquish it. Mrs. Robins was also active in the Pennsylvania Society for the Prevention of Cruelty to Animals, and was President of the Spencer Baird Ornithological Club.—W. S.

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## Legislative Season.

NEW YORK.—Whenever the legislature is in session in this state it is a season of anxiety to the Audubon Society, as the game and bird laws are always subject to attack. During the session of 1906 a number of very bad bills were introduced which required the most determined and energetic efforts to defeat. No one who was not on the fighting line can begin to realize how much hard work had to be done to prevent the passage of these bills, and had any one of them become a law it would have been a decided setback to the work of bird and game protection. It is only by eternal vigilance that the good laws now in force in nearly all the states can be maintained. Should the Audubon watchfulness be relaxed for a moment, great harm could be done. The regular annual attempt was made to repeal the anti-

spring duck-shooting law, which is now best known as the "Brown Law," as it was originally introduced by Senator Elon R. Brown, of Watertown, who has successfully maintained its integrity to the present time.

Senator Burr, of the 1st District (Long Island), introduced the repeal bill. This year there were no hearings held on the bill as there had been in the past. No new arguments could be advanced by the advocates of the bill, but, on the other hand, those opposed to the bill could point to an increased supply of wild fowl last fall, due, without doubt, to the prohibition of spring shooting. The activity of the Audubon forces was confined to letters written to members of the legislature and personal appeals to committees in charge. The last circular letter sent, which undoubtedly had considerable weight, is given herewith:

**"Senator Burr's Plea May Win  
Spring Duck-shooting Said to Be Factor in His  
Political Fate.**

Special Dispatch to the Evening Post.

ALBANY, April 27.—The present plan of the Senate, so far as it is possible to determine, is to report from committee and pass the Burr bill for "spring duck-shooting" on Long Island. Senator Burr has made the plea that the passage of the bill is essential to the carrying of his district by the Republican party this fall, and that it is necessary to him for securing his re-nomination. This appeal always wins much sympathy among fellow legislators, and seems to settle the fate of the measure. Notice has been given of the purpose to suspend all rules and pass the bill, and there is grave danger that it will be passed, despite the widespread objection to permitting wholesale slaughter over a long period of time.—*From Evening Post, April 27, 1906.*

"The Legislature of New York cannot safely, on political grounds, repeal a wise and beneficial statute in order to help carry a district. Game laws are economic measures, and all legislators should join in giving the state the best. The present wild-fowl law is scientifically and economically correct and should not be altered: If it is, the best interests of the state will be sacrificed."

This shows how largely politics sometimes enters into the subject of game protection, which is *positively wrong*, as the preservation of birds and game should appeal to all legislators, irrespective of political affiliations. The Burr bill was killed in the Assembly, although it passed the Senate. Two local bills were also killed, one to permit duck-shooting in the spring on the Niagara River, and also a bill to permit snipe-shooting in the spring in four of the southwestern counties of the state. The most important bill that was defeated was the one referred to in April BIRD-LORE, page 78. The history of this bill is so important that it is given in some detail as a matter of historical record.

The bill was originally introduced by Assemblyman Young, of New York City. On receipt of a copy, the Game Commission of the state was requested to notify the New York Audubon Society of the date when a hearing on the bill would be held, in order that they might appear to oppose it.

This was supposed to be sufficient notice of the intent of the Society, but it was discovered some weeks later that a hearing on the bill had been held without notice to the Audubon Society. There were present at the hearing, only persons interested in the passage of the bill, together with the president of the Game Commission and the Attorney General of the state. The result of the meeting was that the original bill was withdrawn and a new bill was introduced by the Committee of Fisheries and Game, as follows:

#### "AN ACT

To amend the forest, fish and game law relative to certain varieties of imported European birds, by adding a new section to be known as Section thirty-eight a."

§ 38-a. Black cock, rebhubner, red leg, lapwing, Egyptian quail.—Black cock, rebhubner, red leg, lap-

wing, Egyptian quail, if imported from a European country, may be possessed and sold under regulations as herein contained and not otherwise. No person shall possess, sell, or offer for sale, any of such birds except with the feathered head and feet on, nor until he shall have given a bond to the people of the state of New York, as provided in this section. The bond shall be for a specified time and shall continue in force during that time unless sooner disapproved by the commissioner of forest, fish and game for breach of its condition or failure of sureties. Such bond must be approved by the commissioner as to its sufficiency and form, and be filed in the office of the forest, fish and game commission, and shall be conditioned that the birds intended to be possessed have in fact been imported from a European country; that the person bonded shall not possess, sell or offer for sale such birds or either or any of them except with the feathered heads and feet on; that he will not violate any provision of the forest, fish and game law, and it shall contain such other conditions as to the inspection of books, papers and premises and of the production of evidence by way-bill, bill of lading or otherwise, as the commissioner may require. A breach of any provision or condition of the bond shall, in addition to other penalties, work a forfeiture to the people of the state of New York of the amount named therein as the penalty thereof, which said sum shall be considered as liquidated damages, and the privilege of giving any other bond under this section, may at the option of the commissioner be denied to the person so bonded. The burden of proving that the birds are possessed within the meaning and provisions of this section shall be upon the possessor, and no presumption that such birds are possessed lawfully within this state shall arise in any proceeding before any court, justice or magistrate, until it affirmatively appears that the provisions of this section have been complied with."

The Audubon Society immediately took the matter up with the chairman of the Assembly Fish and Game Committee, and insisted upon another hearing at which the opponents to the bill might be heard. This hearing was held at the Capitol on March 27. Among those present were Mr. F. M. Chapman, who represented the American Museum of Natural History, and Dr. T. S. Palmer, of the Biological Survey, Department of Agriculture, who was present by the invitation of the New York Audubon Society. The League of American Sportsmen was also represented, as well as several of the game-protective associations from the central and western part of the state. Senator Brown, of Watertown, and Assemblyman Price, of Brooklyn, were also present, together with the Chairman of the Law Committee, of the New York Society.

Objections to the bill were presented in

great detail, and were elaborately illustrated by diagrams and by specimens of foreign and American game-birds for comparison. It was shown very clearly that it would be impossible for the Game Commission of the state to prevent the sale of native game-birds were the sale of five species of foreign game-birds mentioned in the bill legalized. It was pointed out that the bill was specious in its wording, the trade names of the birds being used,—for instance, *Reblubner*, instead of Gray Partridge; Red-leg, instead of Red-legged Partridge; Egyptian Quail, instead of European or Migratory Quail. It was evident that these misleading names were used in order not to attract the attention of the members of the legislature to the familiar names of Partridge and Quail.

It was further proven that the bill was faulty in many other important respects. The advocates of the bill, fearing that it might not be favorably reported from the Committee, had an almost identical bill introduced in the Senate, on which a hearing was held April 19, when practically the same objections were presented as at the previous hearing. Every possible influence that could be secured was brought to bear to prevent the passage of these bills, with the final result that the legislature adjourned without having acted upon them. The success of the efforts of the Audubon Society to defeat the Burr and Foreign Game Sale Bills was no doubt largely helped by the work and influence of individual members, many of whom sent letters and telegrams to their legislators. Such help is always very valuable.

IOWA.—Three attempts to have the model bird law adopted by this state have been made. The failures in 1902 and 1904 really worked for good, as the non-game bird law now in force in Iowa is of the most comprehensive and advanced type. Experience has shown several improvements that were necessary in the original draft of the model law; these are all embraced in the statute now in force in Iowa. The State Audubon Society took a very active part in the passage of the bill, and to their efforts success is largely due.

SOUTH CAROLINA.—A bill was introduced "To incorporate the Audubon Society of South Carolina and to provide for the preservation of the song- and game-birds of the state."

Section 3 reads: "The objects for which the corporation is formed are to promote among the citizens of South Carolina a better appreciation of the value of song and insectivorous birds to man and the state; to encourage parents and teachers to give instruction to children on the subject; to stimulate public sentiment against the destruction of wild birds and their eggs; to secure the enactment and enforcement of proper and necessary laws for the protection and preservation of birds and game of the state; to provide for the naming of special officers and investing them with necessary power, who shall work under the direction and control of the Audubon Society of South Carolina, looking to the rigid enforcement of the present game-bird protective laws of the state; to distribute literature bearing on these topics among the members of the Society and other persons; and to raise and provide funds for defraying the necessary expenses of the Society in the accomplishment of the purposes herein named."

The bill failed of passage, the reason for this being given by one of the incorporators.

"I am sorry that the legislature adjourned without passing the Audubon Bill, and it died on the calendar. There was no opposition to it, and the only reason it did not go through was that, according to the rules of the legislature permission has to be first obtained for introducing such bills. This was done promptly, but it made the bill very late on the calendar, and it was impossible to get it passed before the adjournment of the legislature.

"This matter will be attended to at the next meeting of the legislature, and it will pass without a doubt."

GEORGIA.—The legislature of this state is in session, and the secretary of this Association, Mr. T. Gilbert Pearson, is now in Georgia in the interest of a bill which has been introduced to incorporate the Audubon Society and to give it charge of bird and

game protection. The bill is framed along the lines of the North Carolina Audubon law. It also provides for a resident and non-resident hunting license the fees for the same being used for protection purposes.

LOUISIANA.—The legislature of this state is now in session, and it has before it for consideration several bills which aim to improve the bird and game laws. After adjournment a report of results will be made.

ALABAMA.—A large amount of preliminary work is being done in this state to prepare the way for a bird bill which will be presented to the legislature, a session of which will be held in a few months. Some of the most prominent citizens of Alabama have the matter in charge and are securing the influence and sympathy of the public in a very encouraging manner. In addition, the press of the state is without exception, giving the heartiest support to the movement.

—W. D.

#### Reservation News.

Another reservation has been secured as a bird refuge.

#### EXECUTIVE ORDER.

It is hereby ordered that Indian Key, an island in Tampa bay Florida containing ninety acres, and located in Sections 10 and 15, Township 32 south Range 16 east as the same appears upon the official plat of survey of said township on file in the General Land Office be, and it is 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 Indian Key Reservation.

(Signed) THEODORE ROOSEVELT.

The White House, February 10, 1906.

A NEW FEDERAL BIRD LAW.—After the Audubon Societies had secured several bird reservations it was discovered that there was no federal law that could be invoked in case of persons hunting or egging contrary to the regulations of the Secretary of Agriculture. The reservations being federal territory, state bird and game laws were not applicable to violations.

This condition of affairs made it necessary to apply to Congress for relief, and a bill was introduced by Congressman Lacey

entitled: "An act to protect birds and their eggs in game and bird preserves." H. E. No. 13190 promptly passed the House of Representatives, but for a long time hung in the Senate Committee to which it was referred. There was no objection to the measure, but it not being considered of any great moment it was ignored until our director, Mr. Frank Bond, took the matter up with Senator Warren, of Wyoming, and our secretary, Mr. Pearson, visited Washington and enlisted the aid and cooperation of Senator Overman, of North Carolina, and your President appealed to Senator Dryden of New Jersey, when the bill was favorably reported with a slight amendment, and it became a law by approval of President Roosevelt at 11 20 A.M. June 28, 1906. The law reads as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled That it shall be unlawful for any person to hunt, trap, capture, wilfully disturb, or kill any bird of any kind whatever or take the eggs of such birds on any lands of the United States which have been set apart or reserved as breeding grounds for birds by any law, proclamation, or Executive order except under such rules and regulations as may be prescribed from time to time by the Secretary of Agriculture.

"Section 2. That any person violating the provisions of this Act shall be deemed guilty of a misdemeanor and shall, upon conviction in any United States court of competent jurisdiction, be fined in a sum not exceeding five hundred dollars or be imprisoned for a period not exceeding six months, or shall suffer both fine and imprisonment, in the discretion of the court: Provided, That the provisions of this Act shall not apply to the Black Hills Forest Reservation, in South Dakota."

This law will be rigidly enforced by the Audubon wardens, who receive their appointments from the Secretary of Agriculture but whose wages are paid by the National Association.

BRETON ISLAND RESERVATION.—The early reports from the two wardens guarding the

birds on this reservation and on the adjoining islands owned or leased by the Louisiana Audubon Society indicated a wonderfully successful breeding season. President Miller, of the Louisiana Society, is now making his annual tour of inspection and, as he has taken his photographic outfit with him, it is hoped that his report will be illustrated with pictures showing the benefit of faithful warden protection.

Mr. Miller reports that "The captain of the Schooner 'Little Annie,' who was arrested for egging on one of the Audubon Islands in 1905 was convicted April 23, 1906, and was fined \$25 and costs or 30 days in jail. The news of this conviction will travel all along the coast."

BIRD KEY, TORTUGAS, FLORIDA.—A letter received from Prof. Alfred G. Mayer, Director of the Marine Biological Laboratory, on the Tortugas, is of so much interest and is so encouraging that extracts from it are given: "June 5, 1906. I have visited Bird Key and talked with your warden B. E. Roberts, who seems interested in his work, and the protection this year may be considered practically perfect. There are about three times as many birds as in 1898; the Sooty Terns are especially increased in number, although the Noddies have also increased. In 1898 there was no efficient protection, and the increase may be safely regarded as being due to the protection of the Audubon Society."—W. D.

A JUSTIFIABLE THRASHING.—Miss Boynton, who is doing such good bird work among the children in the Bahama Islands, W. I., writes as follows:

"I shall be very grateful for the additional sets of Leaflets which you kindly offer to send. I can use almost any number, and, believe, with good results.

"I have a nest of a Humming-bird which seems to me rather curious. It is made of cotton so evenly wound and so lightly packed that I could not at first accept the statement that it was the work of a bird. The boy who brought it, however, was almost tearful in his recital of the act of another boy, who tore down the branch and

killed the tiny mother and two little birds who were in the nest. He punished the murderer with a thrashing.

"It seems that the children can be taught loyalty to the birds from this incident, and if the nest will be of any interest to you I am commissioned to forward it."—W. D.

CATS.—In the April number of 'The Emu' it is reported that the cat question is already a serious problem with bird protectionists in Australia. One of the editors suggests, as a remedy, an annual tax of one shilling for each cat owned. It seems that the abandoned cat is becoming a nuisance everywhere. Some of the keepers of the Lighthouse on Great Duck Island, Maine, which is a noted breeding resort for Gulls and Petrels had some cats which were a serious menace to the young birds. The matter was reported to the Inspector of the First District, T. H. Wilmer, Commander, U. S. N., who issued the following order, which effectually settled the cats at that station:

"Great Duck Island is a favorite breeding ground for certain classes of birds. The Lighthouse Board is in hearty sympathy with the work of the Audubon Society, and sent a circular to keepers of light-stations making a violation of the state bird and game-laws a cause for dismissal from the Light-house Service.

"Investigations have shown that cats are one of the greatest causes of destruction of birds. I feel that it is as much a violation of the law to allow your cats to destroy birds and eggs as for you or your children, or others under your control, to do so.

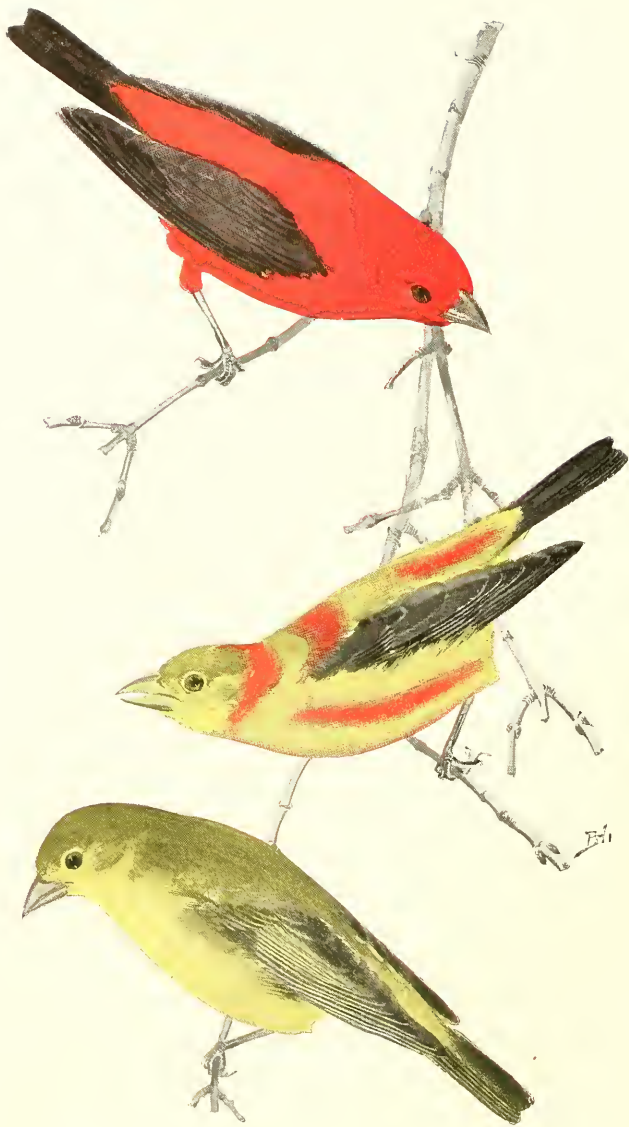
"You will confer a favor upon me, as well as upon the Society, if you will closely confine all cats on the island until after the first of September, or else send them to the main-land."—W. D.

## AN APPEAL

The Association has a large deficit; there is urgent need of funds with which to pay its wardens in September; new members are needed.

Will you take a personal interest in this matter?—W. D.





SCARLET TANAGER

1. ADULT MALE.    2. ADULT MALE, CHANGING TO WINTER PLUMAGE.    3. ADULT FEMALE.

Order—PASSERES  
Genus—PIRANGA

Family—TANAGRIDÆ  
Species—ERYTHROMELAS



# The Scarlet Tanager

By WILLIAM DUTCHER

President of the National Association of Audubon Societies

## National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 21

It is the wish of the writer to repeat here what has been said in previous leaflets, that the fundamental object of this series of publications is to induce the student, as well as the agriculturist, to get in close touch with Nature itself, not through books, or the classroom, but out in the open. Nor must this association be restricted to one subject, birds; it must be broad and general, embracing all of Nature, in order to be of the greatest educational value. The fabric woven by Nature is of such exquisite pattern that each thread must be examined in order to enable one to appreciate the composite whole. The bird student is naturally led to consider many phases of nature, insects, plants and especially trees. Is there any more beautiful feature of out-of-door life than a forest? The trees of the forest are a lesson of patient endeavor, and their hoary trunks indicate the slow process by which Nature builds; each ring in the bole is a record of the ages taken to fashion this exquisite piece of Nature's handiwork. As one looks down the long aisles and vistas of trees he is reminded of the stately columns in a great cathedral. Is it any wonder that the Druids held their religious ceremonies in Nature's temples and that they deified the oak as the emblem of strength, while the clinging mistletoe typified the dependence of man. If one looks down, it is to find a carpet of many-hued wild flowers and mosses which hides the processes of change that are going on; the leaf of last year is turning into the mold that helps build the forest and serves as Nature's reservoir to store surplus rain, thus preventing devastating floods. Through the openings in the foliage the sunlight streams down and forms upon the ground mosaics of light and shadow, more beautiful in color and design than any ever fashioned by the hand of man. Longfellow says, "Nature, with folded hands, seems kneeling there in prayer." It is while in this hallowed place we hear a voice in the tree-tops and, looking upward, see a Tanager in his beautiful dress of scarlet and black, a true wood bird, a fitting occupant of such a home.

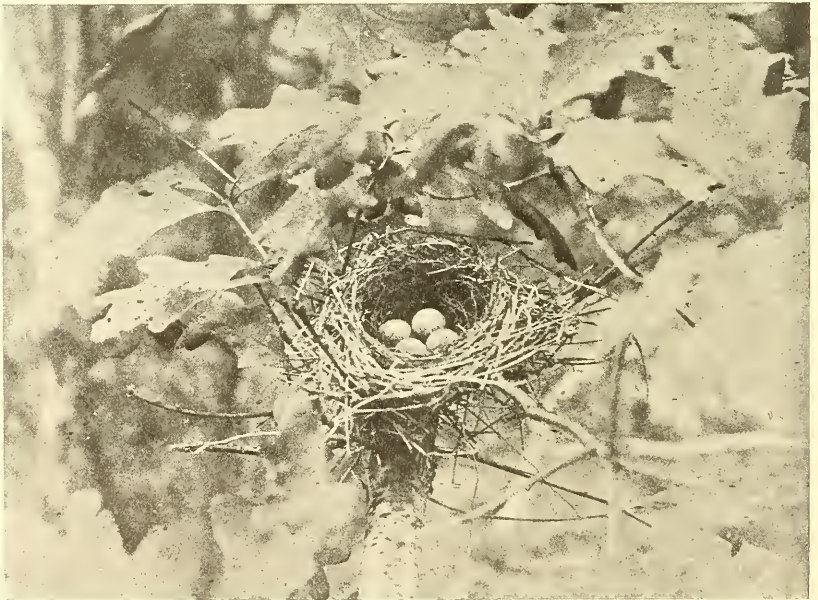
The Tanager is a member of a large family of distinctly American birds. Dr. Sclater, the eminent British ornithologist, gives no less than 375 species, which are arranged in 59 genera.\* Mr. Ridgway,<sup>†</sup> in his latest and most

\* Catalogue British Museum, Vol. XI.

† Bulletin of the United States National Museum No. 59 Part II, 1902.

exhaustive work on American birds, states that 21 genera and 112 species are found in North and Middle America. Of these the Scarlet Tanager is the most conspicuous member of the family that is found in North America. It arrives at its summer home early in May and starts on its southward journey in the fall, late in September or early in October. As the Tanagers migrate by night, many of them become the victims of lighthouses and thus give accurate records of migration dates, especially in the southward migration. It is of singular interest that the mortality occasioned by the light-stations is many times as great in the autumn as it is in the spring. What the reason for this difference is has not yet been discovered, although it may in some measure be accounted for from the fact that in the fall of the year there is more thick and misty weather than in the spring. From records made by the writer, female Tanagers were migrating northward past Fire Island Lighthouse as late as May 15, and the same sex were migrating southward as early as September 23, while a young bird of the year had started south as early as September 18. The latest date in the fall furnished by a lighthouse victim was a male bird killed October 11. The Tanager's breeding home is anywhere in eastern United States, as far south and west as Missouri, and in the southern British provinces from Nova Scotia to Manitoba. In the winter it retires to some parts of the West Indies, and to South America as far as Peru.

Audubon says that the Tanager "is very sensible to cold, so much so,



NEST AND EGGS, SCARLET TANAGER  
Photographed by B. S. Bowdish

indeed, that in the state of Massachusetts should a sudden change take place in the weather, during the time of their spring migrations, hundreds die in the course of a night, not only in the woods and orchards, but even in the towns and villages. I witnessed a like occurrence at Eastport in Maine late in May, when I was on my way to Labrador."

While at its summer home the Scarlet Tanager loves the deep woods, although it is often seen in orchards and clearings. The nest is a very frail affair and it is usually saddled on a limb, quite near its extremity, from ten to forty feet from the ground; it is composed of fine twigs and dried grasses, with a lining of rootlets. The clutch of eggs varies from three to five; they are greenish in color, much spotted with browns and purples.

Alexander Wilson, one of the early American ornithologists, and certainly one of the greatest, in speaking of the song of the Scarlet Tanager, says:\* "Among the thick foliage of the tallest trees, his simple and almost monotonous notes *chip, churr*, repeated at short intervals, in a pensive tone, may be occasionally heard; which appear to proceed from a considerable distance, though the bird be immediately above you,—a faculty bestowed on him by the beneficent author of Nature, no doubt for his protection, to compensate in a degree for the danger to which his glowing color would often expose him. If he has little of melody in his notes to charm us, he has nothing in them to disgust." Wilson evidently failed to credit the Tanager with its best vocal efforts, which all of the later observers and writers have done. In fact, the Tanager is one of our best singers, being almost the equal of the Rose-breasted Grosbeak. The songs of the two birds are often mistaken, although it is claimed that the song of the Tanager has not the roundness and fullness of that of the Grosbeak, being somewhat harsh in its finish. In addition to the fascinating esthetic qualities of color and song of the Scarlet Tanager, it is of very great economic importance, as its food consists largely of noxious insects, especially those found among the tree-tops; it also eats largely of wild fruits, with occasionally a few cultivated ones.

Wilson says, "His manners are modest, easy and inoffensive. He commits no depredations on the property of the husbandman, but rather benefits him by the daily destruction in spring of many noxious insects; and when winter approaches he is no plundering dependent, but seeks in a distant country for that sustenance which the severity of the season denies to his industry in this." Among the most interesting and important branches of bird study is that of plumage and moult; in fact, without some knowledge of this subject the student makes little progress in his acquaintance with the birds commonly found about him. The Scarlet Tanager and his soberly colored consort are striking examples of differences of and also change in plumage. The illustration herewith, to some extent, explains itself. The female bird practically always wears the same dress so far as its color is concerned,

\* American Ornithology: or the Natural History of the Birds of the United States.

although the material is renewed at intervals by moult. On the other hand, the richly dressed male is subject to many changes. Commencing with the nest it has a *natal down*, which is followed by a *juvencal plumage*; this is succeeded by the *first winter plumage*. These latter plumages are very much in color like that of the female bird. This carries the male bird until the following spring, when by moult an entire change in appearance takes place and the Tanager assumes the *first nuptial plumage* of scarlet vermilion, which is worn until the *post nuptial* moult takes place after the breeding season and just prior to the southward migration. It is known as the *adult winter plumage*. The male at this moult assumes a plumage very much like that of the female bird, but he can always be readily distinguished by his jet-black wings, the wings of the female bird being a brownish black. The bird student, especially the beginner, often wonders why it is that he fails to find any male Scarlet Tanagers in the late summer, and it is only after the subject of moult and change in plumage is understood that such enigmas are unraveled. During the *post nuptial* moult of the male the plumage assumes a parti-colored appearance that is very singular. One of the most important and valuable contributions to the literature of ornithology was made a few years since, by Dr. Jonathan Dwight, Jr., in which he discussed the plumage and moults of the passerine birds of New York.\*

The subject is treated so comprehensively and intelligently by the author that every nature teacher should procure a copy of this valuable treatise. It is practically impossible, in a leaflet of this size, to do more for the student than to refer him to a recognized authority on this interesting subject. A short quotation from the opening chapter of the book will show its value and scope: "The moulting of birds is a subject so complicated, so extensive, and so difficult of study, that it is not surprising to find it wrapped, even today, in dense clouds of ignorance which obscure the true principles underlying it. It is my present purpose to demonstrate the principles dominating the plumages and moults of no less than one hundred and fifty North American species of the great order *Passeres*, or Perching birds, and at the same time indicate the wider application of these principles, which the study of other groups leads me to believe prevail among all species of birds, modified only by circumstances."

#### Questions for Teachers and Students

Use as many as possible of the questions in E. L. No. 20; nearly all of them may be adapted. What is the bole of a tree? Describe how the age of a tree can be determined. Who were the Druids? When and where did they live? Describe how forests store moisture? What species of Tanager is found in your locality? Describe change of plumage of male Tanager. Have you ever seen one during process of change; give season? What are the primaries? What are the retrices?

\* The Sequence of Plumages and Moults of the Passerine Birds of New York, by Jonathan Dwight, Jr., *Annals N. Y. Acad. Sci.*, Vol. XIII, No. 1, pp. 71 to 360, Oct. 19, 1900 (Plates I to VII).

# Bird-Lore



EDITED BY  
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETY  
BY

The Macmillan Company

HARRISBURG, PA.

NEW YORK

LONDON

*Handwritten:* Oct 9 1906  
National Museum

# Bird = Lore

September - October, 1906

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1. PARULA WARBLER, ADULT MALE.

2. PARULA WARBLER, YOUNG FEMALE.

3. PARULA WARBLER, ADULT FEMALE.

4. SENNETT'S WARBLER, ADULT MALE.

5. SENNETT'S WARBLER, ADULT 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. VIII

SEPTEMBER — OCTOBER, 1906

No. 5

## The Home-life of the Red-tailed Hawk

By ROBERT W. HEGNER

With Photographs by the Author

THE large size and early nesting activities of the Red-tailed Hawk make it one of the birds most eagerly sought for by bird students.

Its nest is built before most of the other birds begin their mating operations and at a time when the ornithologist's enthusiasm is at its height. For many years the Red-tail in the vicinity of Decorah, Iowa, offered to me an outlet for my youthful ardor, and later, when the camera was directed toward the study of bird-life, this big raptor received its full share of attention.

I have records in my notebook of eighteen nests that were examined during a period of six years. Oak, basswood, birch and pine trees were most often chosen in which to build, although elm, hickory and poplar are also in the list. Five of the nests were forty feet from the ground, five were sixty, and the remaining eight ranged between twenty-eight and eighty. The largest nest found was three and one-half feet in diameter by two and one-half feet thick. It was in a large basswood tree and had been used



RED TAIL LEAVING NEST IN BIRCH FORTY FEET FROM THE GROUND

for many years by apparently the same pair of birds, and material had been added each year. The average size was two and one-half feet in diameter by one foot thick. The nest was invariably composed of sticks and lined with grape-vine bark and corn-husks. No attempt was made at concealment, and most of the nests were visible for miles around.

The earliest eggs were found on March 26. May 12 is the latest date on which eggs were recorded, but this was probably a second attempt after the destruction of the first set.

Great-horned Owls were also found quite commonly in this vicinity, but their nesting period overlapped that of the Red-tails so that there was no double use of a single nest, first by Owls and then by Hawks, as has often been reported.

An interesting observation on the individuality of the Red-tail and a possible proof that the same pair of birds make their home in the same nest year after year, was afforded by three sets of two eggs each that were taken from the same nest in three successive years. These eggs are beautifully marked, and resemble one another so closely that they are easily distinguished from among a great number of the same species. These eggs were taken from a nest in a basswood tree sixty feet from the ground on April 10, 1896; March 26, 1897, and April 3, 1898. Another item of interest is the finding of a runt egg which is not more than one-fourth the size of its nest companion. This egg contained no yolk.

The advent of the camera effectually put a stop to egg-taking proclivities and opened an entirely new field for bird study.

The nest which served as the home of the pair of Red-tails that figure in this story, and whose pictures are used as illustrations, was discovered early in January of the year 1895. The nest tree stood half way up on a hillside, among a very few old oak monarchs and a profusion of slim, second-growth birches. Before the leaves appeared the nest stood out conspicuously against its white background and could easily be seen from a mile away. The occupants of the nest had a most beautiful territory to survey. To the south could be seen the rugged cliffs and deep narrow valleys worn by a clear, bubbling, spring-water stream; to the west, the undulating expanse of low Iowa hills reaching back until the distinctness is lost in the horizon, while to the northward, the Upper Iowa river flows in its meandering course through bottom-lands covered with groves of giant trees and cultivated fields.

On April 5, 1901, I paid a visit to the nest in the birch tree and found it all ready for the eggs. The birds were at first nowhere in sight, but as soon as I had climbed to the nest they both came sailing rapidly toward me from over the hill to the east. The male, after circling about overhead for a few minutes, perched on the dead limb of an oak tree three hundred yards away. Here, on what I learned later was his favorite lookout point, he sat

and watched me, as quiet as the tree itself. His mate was more concerned. She frequently swooped down at me, somewhat as a Nighthawk does when capturing insects, and uttered cries which sounded very much like the escape of air when a railroad train slows down. She came so close to me several times in her downward swoops that I involuntarily ducked my head.



RED-TAIL TAKING ITS OWN PICTURE BY SITTING ON A THREAD ATTACHED TO A CAMERA IN A TREE TEN FEET AWAY

The thread was passed through the screw-eye opposite the bird's head

She never came near enough to do any damage, but always changed her course when a few feet away and veered off a little to the right. Her anxiety was not even allayed when I climbed down out of the tree, but she must needs follow me a mile and a half on my way home.

As I approached the hill on April 11, I could see a Hawk on the dead oak limb in exactly the same place where he was when I went away six days before. He screamed once, perhaps as a warning, spread his wings and sailed out over me, turning his head as he flew to get a better view of me. I could see the tail of the female extending from over the side of the nest, but she valiantly stuck to her post until I had climbed part way up the hill. Then, with a few great flaps of her wings, she hastened out of gunshot, and, circling overhead as on my former visit, she screamed with uneasiness and anger while I climbed the fifty feet of birch tree to the nest and examined the two eggs which lay side by side in the little grooves they had made for themselves in the lining. I left the Hawks still in possession of their beauties, but returned in a few days with a box which looked like a camera. This box I placed in a neighboring birch tree ten feet away, as nearly on a level with the nest as decayed limbs and small branches would permit. This was to accustom the Hawks to the presence of a camera.

A week later, I again visited the nest, but this time I brought the real camera and fastened it to a limb in place of the dummy, by means of a clamp such as is used by bicycle riders to fasten cameras to the handle-bars of bicycles. I intended to work the shutter of the camera with a thread from a hiding-place behind a tree some distance away. But here I encountered a serious difficulty, for Hawks are so sharp of eye that I could not remain close enough to the tree to work the shutter of the camera without frightening them away.

Some ingenious photographer has made many interesting pictures by placing a camera and flash-lamp near the runways of deer and other animals. A string which lights the flash-lamp and snaps the shutter is touched by any wild creature which walks along the path. In a similar manner I decided to try to make the Hawk his own photographer,—an auto-photographer. I attached a thread to the camera shutter, laid it lightly over the nest and tied it to a limb on the other side. At first I stretched the thread too taut, the added weight of my body bent the tree over, and when I climbed down it sprang back a few inches; sufficient to release the shutter and so prematurely expose the plate. In this way four plates were ruined before the correct length of thread was determined. When I had arranged everything at the nest, I visited the domain of another Red-tail a mile up the creek, and placed another camera in a similar position close to the nest in a large elm tree. This bird did not return to her home duties until the camera was removed.

On my return to the first nest, the Hawk flew off and was quickly joined

by her mate. My heart beat wildly as I prepared for the climb, and the laws of gravitation seemed for once to have failed, so easy was the ascent. When I reached the camera I was delighted to find that the shutter had been snapped. I was greatly disappointed that evening, when I developed the plate, to find that the trees had swayed and thus stretched the thread, and the wind, not the bird, had taken the photograph, for no Hawk could be found on the negative. Two days passed before the sun shone long enough for more auto-photographs. On the third day I tried again. Three hours after I had placed the camera, I found the bird at the nest. Again I found the shutter released. This negative was a great success, and shows both birds on the nest. The question immediately arose as to which one pressed the button. A careful study of the picture will show the thread passing over the back of the further bird, whose head is modestly hidden behind a limb. Two more photographs of one bird at the nest were taken the next day, at intervals of three hours. On this day I further perfected my apparatus and made my method more certain of success, by passing the thread across the nest in several different directions, with screw-eyes as guides. Thus there was little chance of failure if the Hawk alighted on the nest. The screw-eyes can be seen in the illustrations and also the threads running through them. The birds paid no attention to the thread stretched across their nest, and returned to their home soon after I left the neighborhood.



A RED-TAIL AUTO-PHOTOGRAPH  
Both birds in the nest

On the bright sunny morning of May 13, the first Hawklet broke through his shell. He was covered with down and lay prone in the center of the nest, with his head stretched forward. Two days later the other egg hatched. The young were six days old when the first picture was taken.

They were of different sizes, the one first hatched being the larger. He was also the stronger of the two, and it is he who in the series of three photographs which show the young, stands in such a frightened attitude while the weaker one crouches at his nest-mate's feet.

The young were continually peeping and could be heard some distance from the nest. At the age of seventeen days, the quill feathers were beginning to appear. Since my last visit the nest had been altered.

The larger fledgling occupied the main part and the smaller made use of the portion on the other side of the nest.

I little expected to find the young birds



still in the nest on my next visit, June 8. They were there, however, and, although they were twenty-nine days old, there were still patches of down among the growing brown feathers. They seemed no more afraid of me than they would have been of a large object of any description. They opened their beaks and spread their wings, but had not yet learned the defensive use of the former or how to get out of harm's way with the latter. On this, my last visit before the young left the nest, I crept cautiously through the woods eastward of the nest and succeeded



YOUNG RED-TAILS AT SIX, SEVENTEEN AND TWENTY-ONE DAYS OLD

in reaching the base of the tree without either Hawk guessing my proximity. Presently one came sinking to the nest as silent as the shadow

which preceded him up the hillside. He neither saw me on the ground nor stopped to reconnoiter, but flew directly on the edge of the nest and began feeding and picking over the young. Unfortunately, the foliage was very thick, or a photograph might have been made from my position on the ground. As my visits became more frequent, the Hawks seemed to recognize the wearer of a brown duck coat as the disturber of their nest. From this



RED-TAILS, TWENTY-NINE DAYS OLD

time on I was greeted from afar by a defiant scream of anger, anxiety and parental instinct, while the men who worked in the fields near by were not noticed in the least.

On my last visit to the Hawks, the nest contained the half-eaten remains of a gopher, and a few feathers which once belonged to a Blue Jay. A Jay had recently been guilty of destroying the home of a House Wren near by in a fence-post, and I earnestly hope it was this bird that met his Waterloo in the sharp talons of the Hawk.

## Nesting of the Arctic Three-toed Woodpecker in the Adirondacks

By LAURENCE ACHILLES

AT three thousand feet or more above the sea, in the denser spruce and balsam forests of the Adirondacks, the Arctic Three-toed Woodpecker is fairly common. Two broods of young were found flying about on June 25, though the nest of which I speak was not deserted until July 5 or 6.

The young birds betrayed their whereabouts by incessantly crying for food. The nest was discovered on June 22, but it was not visited again till ten days later,—July 3. It was located on the summit of Bartlett Ridge, in Essex county, New York, at an altitude of three thousand seven hundred feet.

The trees near the nest were chiefly spruces, with a few balsams and birches scattered among them. The birds had selected a rather open place for their nesting-site, as, within a radius of ten yards from their nest, there were several windfalls and dead spruces. The ground was carpeted with moss, while linnea, clintonia, wood-sorrel and bunchberry were blossoming in profusion near the base of the tree.

The hole, which was in a spruce tree, faced north by northeast, and was twenty-seven feet one inch from the ground. The spruce retained all its branches and some twigs, although it had been dead for some time.

The following dimensions of the hole were taken after the young had left their nest. The entrance to the hole was two inches wide and one and five-eighths inches high. From the outside of the hole, straight through over the top of the nest to the back of the hole, the measurement was five and three-fourths inches. The outside shell, including the bark, was one and three-fourths inches thick. The diameter of the nest opening was three and one-fourth inches, while the diameter of the hole on the inside at the bottom of the shaft, was four and five-eighths inches. The depth of the hole was nine and one-eighth inches.

On July 3, a fellow camper and the writer watched the nest alternately from two P.M. that day until two P.M. of the next, sleeping ten yards from the base of the tree, and in plain sight of the hole. The female seemed much more concerned about the welfare of her young than her mate. Before lighting near the hole to feed them, she would fly around in the vicinity of the nest, uttering guttural notes somewhat resembling the syllable "wick." The old bird's notes were not so sharp as those of the Hairy Woodpecker, but more guttural.

Several times when the female was getting grubs in the dead spruce near the hole, the male would fly from some distant tree and alight near her. She would see him coming and, just as he was about to alight, would



spread her wings and utter a "whe-e-e-e-e." This call, which was its loudest at its middle point, rose and then fell to the same pitch at which it was begun. This love making greatly resembles that of Flickers, which most people who are interested in birds must surely have seen.

The parents, when feeding their young, usually alighted within a space of three feet below the hole, and never directly at its entrance. They would pause here for a moment as though fearing they were observed by some one. Then they would hop up to the hole and look in, anywhere from two up to six times, as if accustoming their eyes to the darkness. Once in a while grubs could be seen in their bills, but, from the actions of the birds when feeding their young, they appeared to be regurgitating. During twenty-four hours the female fed the young thirty times, and the male twenty-nine times.

As it grew dusk, the young gradually grew quieter, and their little "peep-peep-peep" greatly resembled those of chicks when crawling beneath their mother's wings. From two o'clock in the afternoon till seven o'clock that evening, two minutes was the longest period during which the young did not utter a single "peep." From seven P.M. until two minutes after four the next morning, the young birds ceased this continuous chattering. The mother was the last to feed them at night, the time being seventeen minutes after seven; but the male was up first in the morning. At four-fifteen in the morning, the young uttered a few sleepy "peeps," and the male alighted three feet below the hole at four-sixteen. The young birds heard him alight and immediately commenced to chatter. The male hopped up to the hole, looked in twice, and then fed them. The young birds' bills were seen, indicating that they were very hungry, and were hanging on to the inner wall of the nest near the entrance. Soon after this their hunger was appeased, their bills were seen no more, and the parents had to go almost into the hole to feed them.

The parents slept at some distance from the tree, presumably in separate holes, as we found a Hairy Woodpecker's and also an American Three-toed Woodpecker's sleeping-hole, where single birds were observed to retire. These sleeping-holes were occupied by males, and it is quite safe to say that the male and female sleep in different trees.

In the course of the morning, two Red-breasted Nuthatches tormented the Woodpeckers for fifteen minutes. Before venturing near the hole, the Nuthatches put their bills together. Perhaps they were bidding each other their last good-byes, in case one or both of them should meet death in their encounter with their larger adversaries. They hovered around the hole with drooping wings, holding their tails up like Wrens. One of them finally ventured into the hole so far that just his tail was protruding. They would fly away when the parents approached the hole, but would return as soon as the nest was unprotected. After some time the male Woodpecker went

into the hole, evidently intending to peck them in case they should look into it. During the three minutes he remained in the hole, he managed to keep from looking out for one straight minute. Nevertheless, he was greatly agitated, and would look out every few seconds to see if the Nuthatches were approaching,—his crown-patch showing brightly. At last the male Nuthatch came to the edge of the hole, whereat the Woodpecker made an unsuccessful attempt to peck his opponent, afterward flying out with a rush, and chasing the Nuthatch for some distance on the wing. He then alighted on a small branch, but sat very awkwardly, balancing himself with his tail.

As soon as their adversaries had been conquered, a new enemy came up. This time the foes were larger than the Woodpeckers, but they did not show so much fight as the Nuthatches. Four Canada Jays perched in a neighboring tree. The boldest then flew into the tree, and slowly hopped up toward the hole. When he was a foot from it, the male Woodpecker and a Hermit Thrush flew at him so fiercely, and chased him so persistently, that he and his companions did not return.



A LOON PORTRAIT

The accompanying photograph of a Loon was taken by E. W. McLean, a woodsman of northern Michigan. Mr. McLean hung a white piece of cloth on a bush on the shore of a small lake in the heart of the woods, where it could be seen plainly by the Loon, hid himself from view and waited until the Loon came close enough for him to take its picture.—S. S. GREGORY, JR., 89 Astor St., Chicago, Ills.

## The Rose-breasted Grosbeak

By FREDERICK L. HOLTZ

With Photographs by the Author

LAST summer the Rose-breasted Grosbeaks were very numerous in southern Minnesota. Within a radius of an eighth of a mile from my house at the edge of the town I found seven Grosbeaks' nests, and others in the same territory, no doubt, escaped my observation.

One nest was located in the top of a tall box elder in my back yard, the others in near-by ravines and hillsides. The nests are generally placed in the central part of a small shrubby tree, ironwoods being preferred in this section.

Grosbeaks were frequent visitors to my bird's drinking-trough, and their cheery, robin-like song was very pleasant. I often heard them singing during the night.

The year before, I found a pathetic illustration of the small boy's hunting propensity. This was in the shape of the cut-off wings and mangled remains of a pair of Rose-breasted Grosbeaks. These had not only been killed, but cut into small bits—why, it is hard to tell. These beautiful and rather tame birds make a conspicuous and easy mark for the hunter. But this year the Grosbeaks seemed to breed in peace, except that the nest in my yard was destroyed by a severe hail-storm.

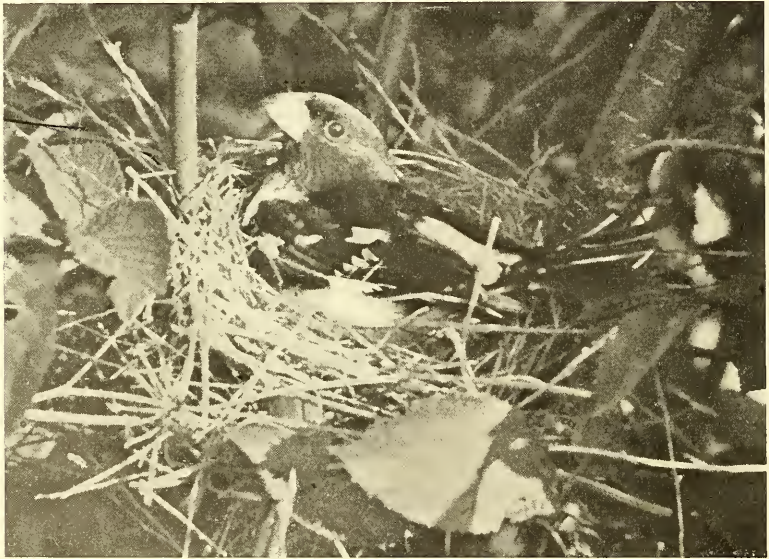


FEMALE GROSBEEK ON NEST

The Grosbeak here prefers a hillside or a ravine for the situation of its home. The nest is rarely more than six or eight feet above the ground. This makes the nest very easy to observe, especially if one goes on the slope above the nest. The nest is built in so loose and frail a way that it is a wonder that it is able to hold together as well as it does. It is composed of interlaced twigs and is lined with grass. It is so loosely constructed that one can easily see through the structure.

My observations were chiefly confined to one nest, just at the top of a steep ravine. By standing on the plateau above the nest, it could easily be seen and touched. There were five eggs in this nest. They were of a light green color, blotched with reddish brown. The young birds are at first nearly covered with long, snow-white down and are very pretty.

Grosbeaks are comparatively tame, the male being especially bold. I frequently set up my camera within two feet of the nest without frightening the birds away. On the first occasion the female was on the nest. My operations disturbed her and she flew off, giving a loud call to her mate, who came in a moment, and without the least hesitation took her place on



MALE GROSBEEK ON THE NEST

the nest. I could almost touch him before he got off. Then, as I retreated a step, he would return to the nest. The male seemed to share very faithfully, with his mate, the cares of the household. The male usually was silent about the home tree, while the female kept chirping shrilly in the neighboring shrubbery.

The mates seemed to take turns in feeding the young. While one was away foraging the other would stay at the nest, at least while observers were near. The returning bird always notified the other of his coming by calling. After the feeding, the parent usually sat on the edge of the nest watching the offspring with solicitous care. The food consisted of locusts, caterpillars, moths and other insects, and fruit. I never saw the parents feeding potato beetles to the young, though the Grosbeak is called the "potato-bug bird" in the West, for its destructiveness of this insect.



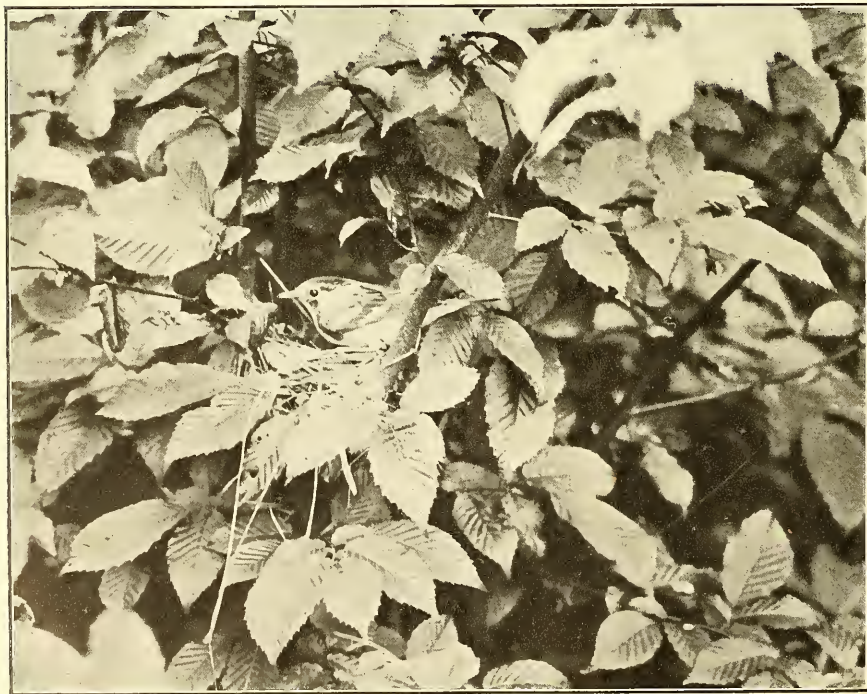
FEMALE GROSBEEK AND YOUNG

I came near missing the final departure from the nest. As it was, two of the young had already left. The mother bird was watching the rest, which were clambering in the branches of the home tree. On my approach they tried to escape, but I caught them and posed them upon a twig for their portrait. The male parent came for a moment at the call of his mate, but soon left again, probably to keep an eye on the youngsters that had got away.

The mother bird tried every inducement and allurements to coax her young from the perch upon which I had placed them, and frequently one or the other of them would attempt to fly to her, and had to be replaced.

I never before heard the female Grosbeak sing. This mother bird, however, among other endearing calls, actually sang short, warbling snatches that were very sweet. At times she came with a worm in her bill and sat on a bush near by to coax the young away. She would come nearer and nearer, and almost but not quite place the morsel in the open mouth of a young one. Then, as the hungry little bird reached for it, she would draw back quickly, with generally the result that it would topple off the twig. Then the mother ran before it and tried to hide it in the tall grass.

I succeeded in getting one very good photograph of the mother bird thus trying to entice her young away. After that I rewarded her maternal anxiety by letting her call her children away one by one into the sheltering bushes.



CHESTNUT-SIDED WARBLER AND NEST

Photographed from nature by Albert Morgan, Wetherfield, Conn.

## The Habits of the Black Vulture in Nicaragua

By A. A. SAUNDERS

THE summer and fall of 1905 I spent on a rubber plantation in the Mosquito Coast district of Nicaragua, and had many opportunities to observe nature in general, and birds in particular. One of the commonest birds there is the Black Vulture. The native population, who speak more English than Spanish, call this bird John Crow. A large number of these birds lived on the plantation, and I had many excellent opportunities to observe them. How so many of them managed to pick up a living there was a matter of wonder to me. We had cattle on the plantation, and occasionally one was butchered. On such days the Vultures gorged themselves on the remains, but between times they must have grown pretty hungry.

The lives of these birds, day by day, was a regular routine, influenced only by butchering and by the character of the weather. In the early morning, I found them sitting on the fence-posts or walking about the plantation searching for bits of food. Toward noon, if the weather is fair, they fly to the tops of the tall eboe trees, and from there sally forth to their wonderful soaring flights. Here they remain during the hotter part of the day, circling high in the air. Toward evening they generally come down for another walk about the grounds before dark. Just at the sunset hour they go to bed, and this is a most interesting performance. They fly, one after another, first to the fence-posts, then to the rubber trees, and so on, by stages, till they reach the top of a tall eboe. Here they wait till the whole flock has congregated and then start for another tree. Who gives the signal for this start, or what prompts them to move together, I do not know. They all burst into the air at once with a sudden, noisy flopping. A visitor to the plantation is sure to remark, "Why! what scared those John Crows?" To which the superintendent replies: "Nothing. They do that every evening." After congregating in a second tree, they often take another flight to a third tree, and so on until they find one that suits them for the night. They seldom sleep in the same tree two nights in succession, though they always commence operations from the same tree.

Butchering day, which occurs at irregular intervals, is the important day in the life of the Vulture. As soon as the men go down to the potrero to drive up the cattle, they know what is coming. They gather together on the fence-posts and shed-roofs, watching the movements of the men with an air of expectancy. Sometimes they wait thus for three or four hours before the butchering is finished and the remains thrown out to them. Then there is an instantaneous scramble. Each Vulture takes hold with his beak and begins to pull and hiss and flop until the piece he holds breaks off, when it is swallowed as quickly as possible and a fresh hold taken. At

this rate the whole feast is consumed in an hour or two, when the Vultures go back to the fence-posts and sit in silence for the remainder of the day. Vultures have a limited vocabulary and make their sounds only when feeding. I heard them make only two different sounds,—a hiss and a low guff, guff, like a dog barking in the distance.

The rainfall in eastern Nicaragua is something tremendous, and its effect on the habits of the Vulture is marked. It often rains several times a day, though seldom more than an hour at a time, after which it clears off and the sun comes out. During the rain the Vultures sit about on the ground or on fence-posts, with their wings drawn in close to their bodies and their backs and tails forming almost vertical lines. In this way they present little surface to the rain and drain the water off at the tip of the tail and bill. I have sometimes seen them, when caught by a sudden shower, while walking about the grounds, rush underneath a small alligator-pear tree which formed a thick, dense shelter. Here they would stand in a circle about the trunk till the rain had stopped. As soon as the sun comes out, the Vultures spread themselves out to dry. This is done by turning the back to the sun and spreading the wings and tail to the fullest extent. I have sometimes seen twenty or thirty in the yard with their wings spread in this fashion. At such times they show off admirably the white quills in the primary wing-feathers. Occasionally, in the early morning, I saw a group of Vultures drying the under-surface of their wings and tail, by facing the sun, throwing them forward and only half-spreading the wings.

The Vulture moves rather awkwardly on the ground. For a long time I decided that here was a bird that both hopped and walked. On careful observation, however, I found this was not so. When the Vulture is taking his time about getting around, he moves with a very solemn, sedate walk, carefully placing one foot in front of the other. When he is in a hurry, however, he slightly spreads his wings and indulges in what looks like hopping but is really a very one-sided run. At first sight he seems to put both feet on the ground at once, but in reality he puts down the left foot first and takes his long step with the right foot. Perhaps some individuals reverse this, but I failed to find any that did. This method of moving makes their gait a sort of canter which looks very ridiculous.

Individual Vultures differ greatly from each other in the amount of feathering on the back of the neck. Some have nearly the whole neck naked, while in others the feathering extends almost to the crown. Some of the natives told me that this difference was sexual, the males being the ones with the feathered necks. The few observations I made in this line supported this belief.

I was once fortunate enough to watch the courting of this Vulture. This took place on the ground in the shade of a small lime tree. In a circle in front of the female were three admirers, who, with their wings partly



spread, were rapidly ducking their heads to her like well-trained servants. She paid little attention, and soon turned her back on them. They persisted in their attentions till she finally got disgusted and flew away, with her suitors in close pursuit.

The Vulture doesn't seem to learn by experience. Over and over again they went through, what was to me, a most ludicrous farce. A number of pigs lived on the plantation, picking up their living along with the Vultures, with whom they seemed quite friendly. The largest of these was of fancy breed, imported from the States, where he had been christened "Mark Hanna." Mark had seen his best days and was now so old and fat that the effort of waddling from one place to another made him breathe pretty hard. He liked to spend as much time as possible sleeping in the midst of a puddle. While he was thus sleeping, some hungry, keen-eyed Vulture, circling in mid-air, was sure to see him. Immediately he would swoop to earth, and, almost before he had landed, a dozen others would have caught the idea and come down, too. There they would stand in a circle about the sleeping pig and watch him. He didn't move. Surely he was dead, and it was their plain duty to eat him. Finally the boldest of the Vultures would draw nearer, step up on his back and cautiously pull a bristle. As nothing happened at this, the rest would be encouraged and three or four would begin pulling at once. This would be too much for Mark, who would voice his displeasure with an angry grunt. The startled Vultures would retire to wonder what had happened, while Mark went peacefully off to sleep again. Seeing this, the Vultures would draw near again, apparently holding a consultation, like doctors, deciding how long they would give him to die. When the time was up they would try again, and so on until poor Mark had to make the terrible effort of getting up and waddling to another puddle in order to sleep in peace. This greatly disconcerted the poor, hungry Vultures, and I fear I sympathized with them rather than with Mark.



# For Teachers and Students

## The Migration of Warblers

EIGHTEENTH PAPER

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

With drawings by LOUIS AGASSIZ FUERTES and BRUCE HORSFALL

### THE PARULA WARBLERS

Records from the South Atlantic States doubtless relate to both the Parula (*Compsothlypis americana*) and the Northern Parula (*C. a. usneæ*); those from the Northern States and Mississippi Valley to the Northern Parula only.

#### SPRING MIGRATION

PLACE	No. of years' records	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Southern Florida . . . . .	3	March 5	March 3, 1889
Frogmore, S.C. . . . .	4	March 23	March 5, 1889
Raleigh, N.C. . . . .	13	April 8	April 1, 1889
Asheville, N.C. (near) . . . . .	5	April 15	April 9, 1893
French Creek, W.Va. . . . .	4	April 22	April 19, 1893
Washington, D. C. . . . .	8	April 25	April 19, 1891
Beaver, Pa. . . . .	4	April 30	April 24, 1899
Germantown, Pa. . . . .	7	May 1	April 22, 1886
Renovo, Pa. . . . .	7	May 5	April 27, 1897
Shelter Island, N. Y. . . . .	13	May 2	April 23, 1891
Portland, Conn. . . . .	7	May 6	May 2, 1886
Boston, Mass. . . . .	14	May 8	May 1, 1896
Randolph, Vt. . . . .	8	May 9	May 2, 1886
Southern New Hampshire . . . . .	8	May 9	April 30, 1902
Southern Maine . . . . .	8	May 10	May 6, 1900
Quebec, Can. . . . .	7	May 14	May 10, 1905
Southern New Brunswick . . . . .	7	May 14	May 9, 1905
Pictou, Nova Scotia . . . . .			May 23, 1891
North River, Prince Edward Island . . . . .			May 30, 1890
<i>Mississippi Valley—</i>			
New Orleans and vicinity . . . . .	10	March 5	February 22, 1893
Helena, Ark. . . . .	5	April 2	March 30, 1897
Eubank, Ky. . . . .			
St. Louis, Mo. . . . .	7	April 14	April 10, 1897
Waterloo, Ind. . . . .	8	May 1	April 27, 1902
Oberlin, Ohio . . . . .	6	May 5	May 1, 1900
Southern Ontario . . . . .	11	May 6	May 1, 1885
Parry Sound District, Ont. . . . .	10	May 10	May 7, 1896
Ottawa, Ont. . . . .	17	May 13	May 7, 1896
Chicago, Ill. . . . .	9	May 8	May 3, 1899
Grinnell, Ia. . . . .	3	May 8	May 4, 1890
Lanesboro, Minn. . . . .	3	May 9	May 6, 1890

## FALL MIGRATION

PLACE	No. of years records	Average date of last one seen	Latest date of last one seen
Grinnell, Ia. . . . .	3	September 20	September 21, 1887
Ottawa, Ont. . . . .	3	September 11	September 13, 1889
Toronto, Ont. . . . .			September 28, 1898
Glen Ellyn, Ill. . . . .	2	September 28	October 1, 1897
St. John, New Brunswick . . . . .			September 17, 1889
Pittsfield, Me. . . . .	4	September 24	September 30, 1898
Hartford, Conn. . . . .	3	October 13	October 20, 1900
Southeastern New York . . . . .	4	October 7	October 12, 1891
Renovo, Pa. . . . .	5	October 8	October 12, 1901
Berwyn, Pa. . . . .	5	October 15	October 31, 1893
Raleigh, N. C. . . . .	9	October 10	October 14, 1890
New Orleans and vicinity . . . . .	4	October 18	October 26, 1890

## SENNETT'S WARBLER

Breeds in northern Mexico and along the lower Rio Grande in Texas. It winters in Mexico and has been taken the last week of February, 1880, on the Rio Grande near Hidalgo.

## The Amount of Science in Oölogy

EDITOR BIRD-LORE: In your May-June issue is published an article by Thos. H. Montgomery, Jr., that is so unreasonable and so narrow in its ideals that we feel called upon to protest against it. His statement that the great majority of oölogists do not deserve the name of scientist, and that the subject of dead egg-shells admits of very limited scientific treatment, is hardly borne out by either the law or an enlightened public opinion. He sets up an argument of his own design, based on inaccurate, so-called facts, and then carefully tries to knock it down, proving conclusively, to his own satisfaction, that the study of embryology is the only branch of oölogy worth attention, and that as practically none of the oölogists care a rap about embryology, therefore they are not conducting scientific research and should not be granted a state license to make a collection of eggs.

He wants to know how many oölogists are acquainted with Wolf, Pander, Packer and Balfour, and other embryologists. The writer has been a bird student for nearly fifty years and owns a good library, yet is free to confess that he never even heard of any of the above gentlemen before. Has Mr. Montgomery ever heard of Chas. E. Bendire, Spencer F. Baird, Oliver Davie or Dr. B. H. Warren? The Smithsonian Institution, at least, does not think they have lived in vain.

I have personal acquaintance with quite a number of oölogists and egg-collectors, and can say that they are doing good, clean, scientific work in

the direction of bird protection and the dissemination of knowledge of the birds. Through the spring they are out every day they can get from business, studying nest-building, egg-laying and birds' food. During the past month I have found as many as twenty-five nests with eggs in them, in a single day, and my entire season's take has been just four nests of eggs, These eggs were all fresh-laid, and I have studied oölogy enough to know that in every instance, under natural conditions, another set of eggs will be laid this season by these same birds that I despoiled. The eggs I took were all blown with one hole on the side, not because they look pretty that way, but in order that absolutely accurate measurement may be made of their length.

During my collecting trips I have also learned that the Warbling Vireo will sing continuously while sitting on its eggs, that the Red-eyed Vireo is a glorious night singer, that the Wood Thrush will fix and occupy its last year's nest, that the Carolina Wren and the Barn Owl are rapidly extending their breeding range in this locality. and that the Bluebird, although nearly extinct in Pennsylvania some years since, is now as numerous as ever. These facts I learned while hunting eggs, and I would not have learned them if I had not been hunting eggs.

Oölogists have proved to the satisfaction of the state lawmakers that the Red-tailed Hawk is a highly useful bird to the farmer, and, instead of paying a bounty of fifty cents for its head, the Pennsylvania law now protects it. I might say that the oölogists see that the law is enforced, too.

Mr. Montgomery has much to learn in this matter of bird protection. If he were out in the field every day hunting the birds and their homes he would know that the Cowbird, protected by law in Pennsylvania, is responsible for the destruction of fully one-half of all the Warbler and Vireo eggs that are laid. He would find that the common house cat and the red squirrel are great egg- and young-bird destroyers. He would also discover that the character of the spring weather had much to do with the success of the birds in rearing their young.

There are a number of fine egg collections in and around West Chester, and yet our bird population is noticeably increasing from year to year.

Respectfully yours,

WEST CHESTER, PA., *June 6, 1906.*

ROBERT P. SHARPLES.

[We give space to Mr. Sharples' letter, not because we believe in egg-collecting, but because we believe that in any controversy both sides have an equal right to a hearing.—EDITOR.]

# Notes from Field and Study

## Scarcity of Bluebirds in Missouri

Dear Sir: Unfortunately I have again to report a great scarcity of Bluebirds nearly throughout Missouri this summer. Cruel March weather killed them after their return from winter quarters. The winter itself was not unusually cold, but it brought us more snow than ordinarily. From February 18 to 26 we had fine warm weather, and this warm spell brought the majority of Bluebirds back to their breeding places in Missouri. On February 26 it snowed from sunrise to sunset, and when it ceased, thirteen inches of heavy snow covered the ground. On the following morning the temperature was down to twenty degrees, and from that day to the end of March winter weather continued, with ice and snow and very few mild days; in fact, Missouri had the worst March in its history. The average mean temperature of thirty-three degrees was ten degrees below the lowest in thirty years; the total snowfall was seventeen and one-half inches. Snow fell on eleven days, rain and snow fell on twenty-four days, with a total precipitation of four and one-half inches. There were really only three cloudless days in the whole month, a most extraordinary condition for Missouri where the clear days by far outnumber the cloudy ones in all seasons.

The scarcity of Bluebirds was apparent as soon as the weather had become warm in early April, and on my visits to seventeen counties in western Missouri, the smallness of the number of Bluebirds observed struck me with surprise. It was surmised that they had succumbed to the adversity of the weather after their arrival, but proof was lacking until reports came in, showing that they had starved and frozen to death in their retreats. Mr. Julius T. Volkman found on April 29, within ten minutes' walk of his house in Webster Groves, a suburb of St. Louis, eight dead Bluebirds in one tree hole, six in another, and nine in a hollow telephone post. They were mostly females. There can now be but little doubt that the same fate befell the majority of Bluebirds in

all parts of the state, and possibly also in adjoining parts of other states.—O. WIDMANN, *St. Louis, Mo.*

## Feeding Birds in Winter

Under the subject of 'Feeding Birds in Winter' come two other subjects of even greater interest to the bird lovers, namely, 'The Taming of Birds' and 'The Changing of Both their Habits and Food.'

The winter of 1903-1904 was an exceptionally hard winter for the birds; for this reason I thought it my duty to set a



DOWNY WOODPECKER

lunch-counter for the feathered tribe. I tacked suet to the trunk of a big black walnut tree that grew fifteen feet from my window, and it was not long before the birds began to patronize it. They seemed to tell all the birds in the neighborhood of their happy discovery, for many birds appeared that I had never seen around the house before this time.

Every day the Downy and Hairy Woodpeckers, Red- and White-breasted Nuthatches, Chickadees, Brown Creepers, and Blue Jays came to eat the suet, while the Juncos and an occasional English Sparrow

ate crumbs I scattered on the ground. The birds were not the only ones to enjoy the suet; several gray and red squirrels came daily and carried away so much suet that I had to devise a new method for feeding the birds. I put out bread crumbs upon my window-sill, and the Chickadees and Nuthatches soon learned to come there for them. At first they were afraid of the open window, but they soon learned to eat without fear, while I stood near with the window open.

One cold morning I put some crumbs in my hand, and held it out of the window.



A CHICKADEE PET

A little Chickadee came along, flew nearer and nearer; then came to a wire close to my hand; looked at the crumbs, then at me. After picking my fingers to make sure they were harmless, he hopped into my hand, ate some crumbs, and flew away to tell his mate what a daring little Chickadee he was. After this he came daily to my hand, and before long other Chickadees and a Red-breasted Nuthatch followed his example. One day I succeeded in photographing my feathered friend, while eating crumbs from my hand. The Nuthatches had a good deal of difficulty in getting to the window-sills. They could not grasp the smooth boards with their claws, neither could they keep their balance on the wire just beyond the sill. I took pity on them and made what I call a moving restaurant for them. I nailed boards together, which I suspended in mid-

air by means of a wire. With a string and pulley I can move this from my window to the tree. Here I placed crumbs and water. The Nuthatches soon learned to come here very gracefully, and before long they could stand up on their legs as well as any other bird. My Nuthatch is now as much a perching bird as a creeping bird.

The next year the Brown Creepers, Juncos, an English Sparrow and a Downy Woodpecker followed the example of the Nuthatches and Chickadees and came to the restaurant for food. I took several photographs of them.

The Woodpeckers eat nothing but suet, while the Juncos eat nothing but crumbs and seeds. The birds have a decided preference for doughnut crumbs, although they are very fond of bread crumbs. The Brown Creeper likes crumbs and suet, while the Chickadees and Nuthatches, although they will eat everything I give them, like nuts and squash seeds best. I crack the nuts for them and give them shells and all, while I simply break the squash seeds in two.

I shall continue my study of feeding and taming the birds this winter, and hope to discover many other new facts about them.

I advise the readers of BIRD-LORE to set a table for the birds this coming winter, and to watch their habits closely. It is surprising how the birds will appear in a neighborhood where there were no birds, when they find food and protection there.

I begin to feed the birds the last of October, and keep it up regularly until the middle of April. The birds will not come to any artificial lunch-counter when they can get their natural food.—SAMUEL D. ROBBINS, *Belmont, Massachusetts.*

#### Western House Wren's Nest

One of the most peculiarly constructed and appearing birds' nests ever coming under my notice was built by a pair of Western House Wrens,—in an outhouse in Cheyenne Cañon, Colorado. A shallow box afforded the foundation of the nest, which was constructed of the smaller twigs of the scrub oak and built into the form of a pyramid. Many of the twigs were forked and skilfully

locked together, forming a very rigid structure, twelve inches wide at the base, five and one-half inches across the top, and sixteen inches high. A photograph of the nest taken after it had been carried six miles and severely handled, and reproduced in the accompanying cut, gives a very comprehensive idea of the home of the sagacious little birds. The nest proper, perched on top of

human nature, procured a mirror and viewed the new home, which act so enraged and disgusted the industrious pair that they immediately abandoned it forever. Whether the disappointed birds sought out a new place for homemaking, free from meddling man, and raised a family, the friend who witnessed the tragedy related above and brought me the nest was unable to say.—W. W. ARNOLD, M. D., *Colorado Springs, Colo.*



NEST OF WESTERN HOUSE WREN

this curious tower, was composed of horse-hair, fine rootlets, grass, and feathers as a lining. The female deposited four dainty pink-colored eggs with brown splotches over them, about the size of a large marrowfat pea, quite large at one end and almost pointed at the other.

A too inquisitive and careless person, whilst examining the nest, handled and broke one of the eggs, which so disgusted the little housekeepers that they immediately went to work and built about two inches of twigs over the nest, completely hiding it and the remaining three eggs, and on this oundation constructed a duplicate of the discarded nest. The nest now almost touched the roof of the shed, and shut out the possibility of peeping into it, but inquisitive

#### Swallow Notes From Northern New Jersey

The summer of 1904 was remarkable for the absence of Barn Swallows. Old barns that had been tenanted and used for nesting as long as the oldest inhabitants can remember were entirely deserted. I visited an old mill and outbuildings that had always been a great resort, but not a single Swallow could be seen. This year a few pairs took to the old homes, one pair in my old barn, and a solitary pair here and there in surrounding localities.

A colony of Cliff Swallows built five nests under the eaves of one barn, but the larger colonies that were here three years ago did not appear.—HENRY HALES, *Ridgewood.*

#### Baltimore Oriole in Virginia in Winter

In November I saw what I supposed to be a male Baltimore Oriole. On December 21, I saw the bird again, and it had every marking of an Oriole. It was seen by two other persons, one of whom positively identified it as an Oriole or some bird having exactly the same markings.—WILLIAM P. CATON, M. D., *Dumfries, Va.*

#### Migrant Shrike in Spring

A Migrant Shrike seen on May 3, 1906, is the first spring record for this locality. In the June number of *BIRD-LORE*, Mr. Chapman mentions one seen by him at Englewood, N. J., as the first one ever recorded from that locality in spring. This species is usually found here as a decidedly rare migrant between August and January, but one fall, a few years ago, I noted seven or eight during that period.—W. DE WITT MILLER, *Plainfield, N. J.*

# Book News and Reviews

THE BIRDS OF THE CAMBRIDGE REGION OF MASSACHUSETTS. By WILLIAM BREWSTER. Memoirs of the Nuttall Ornithological Club, No. IV. Published by the Club, Cambridge, Mass., July, 1906. 4to. 426 pp., 4 plates, 3 maps.

It is fortunate that the portion of North America whose birds have been studied longest and most thoroughly should have for its present-day historian, a writer who, through his natural gifts, training and experience, is ideally prepared to carry the torch borne in turn by Nuttall, Minot, and other early workers.

Not only is the continuity of the ornithological record, as a whole, not approached by that of any other similarly restricted area in this country, but we believe that no other living American ornithologist has so extended, accurate and intimate a knowledge of the birds of a given locality as has William Brewster of the birds of Cambridge. In short, opportunity and the man have here joined forces to produce what, beyond question, is the most interesting and valuable Local List of birds which has been published in this country.

A table of contents having, doubtless through an oversight, been omitted, we append a summary of the book's chapter and section headings, which, at a glance, will reveal the author's plan of treatment:

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This mere outline indicates the wide scope of the author's plan, which an examination of the subject matter, with its wealth of data and detailed observation, shows has been realized in a manner not only to make the book entertaining reading, but highly satisfactory as a work of reference.

Although relating primarily to the birds of a small area, so much of the contents of this volume is of more than local interest that we are tempted to quote at length from it. Under 'Faunal Changes,' the author remarks (p. 61): "Some of the principal changes which have taken place in the fauna of the Cambridge Region during the past thirty or forty years relate to (1) Birds whose local increase may be attributed to changes in local conditions;—as the Bittern, Green Heron, Rose-breasted Grosbeak, Redstart and Long-billed Marsh Wren. (2) Birds whose local increase is evidently due to recent local protection:—as the Herring Gull, Black Duck, Whistler and Crow. (3) Birds whose local decrease is apparently due chiefly, if not wholly, to changes in local conditions;—as the Chimney Swift, Bobolink, Meadowlark, Barn Swallow, Bank Swallow and Pine Warbler. (4)



Birds whose local decrease is probably due chiefly to persecution by the House Sparrow;—as the Least Flycatcher, Purple Finch, Song Sparrow, Indigo-bird, Tree Swallow, House Wren and Bluebird. (5) Birds whose decrease, and, in a few instances, total disappearance, has been not only local but general throughout New England, and evidently due chiefly or wholly to systematic persecution on the part of man;—as the Hooded Merganser, Green-winged Teal, Blue-winged Teal, Wood Duck, Woodcock, Lesser Yellow-legs, Upland Plover, Quail, Ruffed Grouse, Wild Turkey, Wild Pigeon, Red-tailed Hawk and Great Horned Owl.”

Of certain other birds whose decrease in the face of an apparently abundant food supply is difficult to understand, it is said: “I have observed—as indeed, who has not!—that few birds—excepting those which, like Swallows, Terns, Herons and Gulls, are accustomed to nest in colonies—tolerate very near neighbors during the season of reproduction. At its beginning, each pair takes possession of a definite tract of woodland, orchard, swamp or meadow, which the male is ever on the alert to defend against trespassers of his own kind and sex, although he often seems quite willing to share his domain with birds of other, and perhaps closely related species. . . . In my opinion the desire for exclusive possession so conspicuously shown by the male, and often by him alone, is usually the result of *sexual jealousy*. This, as is natural, makes him intolerant, during the breeding season, of the near presence of rival males. If his concern were chiefly in respect to the food supply, it would be equally manifested at every season, and towards all birds who subsist on the same food that he and his mate require—which is certainly not the case.”

Of the ever-to-be-regretted introduction of the House Sparrow, it is further said (p. 66): “It is probable, however, that only those of us who personally remember the conditions which existed before the Sparrows came, and who actually witnessed the changes that accompanied their increase and general dispersion, can realize to the full,

the disastrous and far-reaching effects which their introduction has had on our native bird population.”

The ‘Annotated List’ with ‘Additional Notes’ occupy 314 pages, 249 species being enumerated as having been found in the Cambridge region, while the status of others whose occurrence is probable is also often fully given. In addition to the extended information derived from other workers, chiefly members of the Nuttall Club, over forty years’ virtually continuous observation and methodic note-keeping, have placed the author in possession of an unequaled amount of data, of which he has evidently made the best of use. The present, and often past, status of each species, the seasons of its occurrence, its nesting dates (if a breeding bird), and much biographical matter are presented in an admirable manner.

Writing from the fullness of his experience, the author has evidently had to curb rather than force his pen. He never writes above his subject, but, keeping himself well in control, avoids, on the one hand, the stilted iterations of the stereotyped local list, and, on the other, the ‘fine writing’ which is generally a confession that we have but little to say, or of inability to say what we want to say. Here, incident, sentiment, pleasing description and statistics are combined with rare literary taste and judgment, into a well-rounded whole, and we commend this style of writing to those whose exuberant love of nature leads them to describe the simplest field experience in superlatives.

In brief, so far as its contents are concerned, Mr. Brewster’s book is, in our opinion, above criticism, a fact which but increases our regret that its usefulness is sadly impaired by its unnecessarily large size—a cumbersome quarto, when we might readily have had a convenient octavo of the same—or even fewer—number of pages. We have spoken of this matter before in reviewing Dr. Townsend’s ‘Birds of Essex County,’ and it is unnecessary to repeat what was said at that time (see BIRD-LORE 1905, 212). The omission of a Table of Contents we have already mentioned. The index is a marvel of thoroughness and accu-

racy, but when as many as one-hundred page references follow a single heading, we feel that an annotated or explanatory index would have more nearly accomplished the end evidently held in view.—F. M. C.

THE HOME LIFE OF WILD BIRDS: A New Method of the Study and Photography of Birds. By FRANCIS HOBART HERRICK. Revised Edition. With 160 original illustrations from nature by the author. G. P. Putnam's Sons, New York and London. 1905. 8vo. xxv — 255 pages, numerous half-tones.

Having reviewed at some length (BIRD-LORE, IV, 1902, p. 101) the preceding edition of this important work, we have here only to congratulate its author and publisher on the greatly improved make-up of this revised edition, which appears as an octavo instead of a quarto, and to comment chiefly on the changes which have been made in the text.

Professor Herrick's original work was based mainly on the study of twenty-six nests belonging to fifteen species of birds, but he has now extended his experience to embrace fifty-nine nests, representing thirty species. Much of the earlier work has been rewritten, "forty-eight new illustrations have been added to the text, in place of a smaller number omitted. The first three chapters have been materially changed; Chapter XI, on 'Nest-Building' is entirely new, as are also, in large measure, those which follow on the 'Development and Care of the Young' and on 'Life and Instinct.'"

It is evident that the value of the book has been much augmented. Not only has its author had a greater amount of material on which to draw, but, recognizing the evil of certain anthropomorphic tendencies which have recently become more or less pronounced in our study of animal life, he addresses an authoritative word of warning to those who would read their own lives into that of the particular bird or beast to which they may devote their attention.

Wholly aside, therefore, from its interest to bird photographers, this book is of the utmost value to students of the nesting habits of birds, to whom we commend it as the best exposition of the scientific method in

the observation of the life of the nest with which we are familiar.—F. M. C.

Bulletin No. 1 of the Vermont Birds' Club. May, 1906. Published annually by the Club, Burlington. 8vo. 22 pages.

The function of this publication is clearly stated in the following introductory paragraph: "The Vermont Bird Club has been in existence nearly five years. It was formed for the purpose of collecting and preserving information concerning the birds found within our state; of creating and encouraging an interest in birds; of promoting scientific investigations and of securing protection of all useful species. Since its organization the feeling has existed among the members that the proceedings of its meetings should be printed, thus giving them tangible and permanent form and allowing those who cannot attend the meetings regularly to keep in closer touch with the work of the Club."

The present bulletin includes a history of the Club, now in its fifth year, reports of meetings, a 'List of Birds Observed in Rutland County, Chiefly Between the Years 1888 and 1906,' by G. H. Ross; 'Nesting of the Duck Hawk,' by U. A. Kent, and abstracts of papers read at the winter meeting. While bibliographers, with reason, deplore the increase of ornithological publications, we believe that there is room for State Club Bulletins of this kind, provided their contents be restricted to news of the activities of the organization they represent, and to papers of local value. Observations or the results of researches having general scientific value should be made accessible to a larger public.—F. M. C.

#### The Ornithological Magazines

THE CONDOR.—The August number of 'The Condor' comprises four articles which are of rather less general interest than usual. Finley's paper on 'The Barn Owl and its Economic Value' is illustrated by six half-tones of photographs taken by Bohlman. 'The Percentage of Error in Bird Migration Records' is discussed by Stone, who summarizes the results of a study of a series of local records, kept by observers near Philadelphia. He reaches the conclusion

that "what we need in the future . . . is more detailed and accurate data; and the plan of organizing large corps of observers at several important centers as above described, is suggested as a means toward that end." 'The Land Birds of San Onofre, California,' are listed by Joseph Dixon, who identified sixty-three species on the old Mexican land grant of that name in North-western San Diego county. In 'Notes on Birds Observed While Traveling from Yokohama to Manila,' McGregor calls attention to the fact that Gulls and seabirds of all kinds are comparatively rare in Philippine waters, although they are well represented in Japan. Only two species of Gulls have thus far been recorded from the Philippines.

The number closes with a 'Directory of

Members of the Cooper Ornithological Club,' which shows that the membership on June 1, 1906, comprised 2 honorary and about 230 active members. Since the organization the club has lost seventeen members by death.—T. S. P.

JOURNAL OF THE MAINE ORNITHOLOGICAL SOCIETY.—The June issue of this Journal contains such an admirable picture of a singing Song Sparrow that we have requested permission to reproduce it in BIRD-LORE. Rare, indeed, are the bird photographs which so satisfactorily portray the spirit of their subjects. The text includes 'Inhabitants of Alders and Evergreens,' by Dana W. Sweet; 'Contributions to the Life History of the Black-throated Blue



SONG SPARROW

Photographed from nature by Chas. H. Tolman, Portland, Me. Published by courtesy of The Journal of the Maine Ornithological Society

Warbler,' and 'What Can We Call the Incubation Period,' by Ora W. Knight; Migration Reports for 1895, reports on the status of the Bluebird in Maine during the past spring, from which it appears "that in most places Bluebirds are as plentiful as they were last year, while in some localities they are reported scarce," and 'Notes' from various parts of the state.

We read with pleasure the editor's statement that "the progress of bird study in Maine during the past two years has been great. Everywhere there has been an awakened interest in ornithology, and there are now ten times as many bird students as formerly."

For the September issue, W. H. Brownson supplies a graphic description of a visit to 'The Tern Colony of Bluff Island,' which in June he estimated to contain over one thousand birds. Frank T. Noble describes his experience with a wounded Pintail, which "was discovered on the bottom, grasping with its bill the tough stem of a cowslip." There are migration reports from members and a very interesting sketch, by Walter H. Rich, of a captive White-winged Scoter, whose portrait serves as a frontispiece to this number.

O. W. Knight writes on 'Some Birds of Pleasant Ridge,' Ruthven Deane sends 'Notes from Scarborough Beach,' and items follow on various birds. Notice is given that the annual meeting of the Maine Ornithological Society will be held in Portland, at the rooms of the Portland Society of Natural History, on Friday and Saturday following Thanksgiving Day.—F. M. C.

THE WARBLER.—The second number of the second volume of 'The Warbler,' published May 1, 1906, contains colored figures of the eggs of "*Empidonax griseus canescens*" and of "*Empidonax insulicola*," but since Mr. Grinnell has shown that this alleged island form is inseparable from *Empidonax difficilis* (Condor, VIII, 1906, 74), we may accept the figures as representing a Santa Barbara Island set of eggs of that Flycatcher.

Mr. Grinnell writes on the nesting habits of the first-named *Empidonax*, which he found to be "fairly common in July on the higher portions of the San Gabriel Mountains in the vicinity of Mount Waterman," but we are assured that this careful student is not responsible for the slip which, both on the plate and in the heading to his text, makes *Empidonax canescens* read "*Empidonax griseus canescens*."

P. B. Peabody writes of the breeding habits of the Piñon Jay as he found it in Wyoming, and accompanies his article with three photographs, one of which shows this Jay brooding.

The third number of this volume of 'The Warbler,' published August 20, figures in color the eggs of Bicknell's Thrush and of the Salt Marsh Yellow-throat, and contains an illustrated study of the Rocky Mountain Nuthatch, by P. B. Peabody; 'Long Island Bird Notes,' by John Lewis Childs; the 'Nesting of the Roseate Spoonbill in Florida,' by R. D. Hoyt; the 'Gnatcatchers of Southern California,' by Harry H. Dunn, and 'The Chuck-Wills-Widow,' by Anne E. Wilson.

THE WILSON BULLETIN.—The Wilson Bulletin for June, the second number of the eighteenth volume of this standard publication, contains a capital article on the habits of the Common and Roseate Terns, which we can commend to field workers, not only for its contents, but as an object-lesson in methods of field study. The Common Tern has been studied by many ornithologists in a more or less desultory fashion, but Mr. Jones' additions to our knowledge of the habits of this species show the importance of concentration of effort.

Other articles are 'A Preliminary List of the Birds of Seneca County, Ohio,' by W. F. Heninger, which enumerates 203 native and 2 introduced species; 'Remarks on the Summer Birds of Lake Muskoka, Ontario,' by B. H. Swales and P. A. Taverner; 'Two All-Day Records in Northern Ohio,' by Lynds Jones, Notices of Recent Literature, etc.

# The Audubon Societies

*"You cannot with a scalpel find the poet's soul,  
Nor yet the wild bird's song."*

Edited by MRS. MABEL OSGOOD WRIGHT and WILLIAM DUTCHER

Communications relating to the work of the Audubon and other Bird Protective Societies should be addressed to Mrs. Wright, at Fairfield, Conn. Reports, etc., designed for this department, should be sent at least one month prior to the date of publication.

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## In Memoriam

It is again a painful duty to record the death of a valued member of this Association, Mr. Albert Willcox, of New York City, who died August 13, in his fifty-ninth year.

Great modesty, combined with an intense love for all helpless creatures, made his character exceedingly attractive. He was the unknown benefactor who contributed so largely to the working fund of this Association during 1905 and the present year. With his first money gift to the Society he compelled a pledge from the President that the name of the donor should not be divulged during his life. In all his conversations his desire to benefit and care for wild birds and animals was his principal theme. On one occasion he remarked to the writer that he "was almost a Brahmin in his love for all helpless creatures." His good works will not cease with his death, for he left to this Association an immediate legacy of \$100,000, and, in addition, made the Society his residuary legatee to the extent of one-half of his estate, payable on the death of his brother, his sole surviving next of kin. Mr. Willcox's love for birds and animals was no passing interest, but will be everlasting. With one stroke of his pen he perpetuated the work of bird and animal protection in this country.

"I would not have this perfect love of ours  
Grow from a single root, a single stem,  
Bearing no goodly fruit, but only flowers  
That idly hide Life's iron diadem:  
It should grow always like that eastern tree  
Whose limbs take root and spread forth  
constantly;  
That love for one, from which there doth  
not spring

Wide love for all, is but a worthless thing.  
Not in another world, as poets write,  
Dwell we apart, above the tide of things,  
High floating o'er earth's clouds on fairy  
wings;  
But our pure love doth ever elevate  
Into a holy bond of brotherhood  
All earthly things, making them pure and  
good."—W. D.

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## Resolutions Passed at a Special Meeting of the Board by Directors of the National Association of Audu- bon Societies

At a special meeting of the Board of Directors of the National Association of Audubon Societies, held in New York City, September 7, 1906, the following being present: J. A. Allen, William Brewster, H. C. Bumpus, S. T. Carter, Jr., Frank M. Chapman, William Dutcher, T. S. Palmer, T. G. Pearson, Witmer Stone and Mabel Osgood Wright, it was

*Resolved*, That this Association express its great regret at the death of its patron, Mr. Albert Willcox, to whom it is so deeply indebted for support and encouragement during the past two years; and

*Resolved*, That this Association place on record its profound gratitude at the far-sighted generosity of the said Albert Willcox, who, through his munificent bequests to this Association, has established, on a permanent foundation, the movement to preserve the wild life of this country. (Signed) NATIONAL ASSOCIATION OF AUDUBON SOCIETIES, T. GILBERT PEARSON, *Secretary*.

## Second Annual Meeting of the National Association of Audubon Societies

The second annual meeting of this Association will be held at the American

Museum of Natural History, New York City, October 30, 1906. In view of the increased activities now rendered possible by the Association's improved financial status, it is hoped that this meeting will be largely attended.

#### The Mrs. Bradley Fund

Total subscriptions reported in June BIRD-LORE, including May 8, 1906 . . . . .	\$1,788 25
Subscriptions including August 28, 1906 . . . . .	55 15
Total . . . . .	\$1,843 40

#### ADDITIONAL SUBSCRIBERS TO FUND

Anonymous . . . . .	\$1 00
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Surface, Violet Mae . . . . .	1 00
Wallace, A. L. . . . .	1 00
	\$55 15

#### Notes and News

PLUME SALES.\*—"The usual feather sales were held at the London Commercial Sale-rooms on April 11 and June 12, 1906. A feature of the earlier sale was the great

\* Reprinted from 'Bird Notes and News', Vol. 11, No. 2, 1906. Organ of the Royal Society for the Protection of Birds, London, England.

number of Tern's wings (10,000), of Kingfishers (15,000), and of Albatross and Bustard quills. There were 260 packages of Osprey (Aigrette) feathers, 7,188 Birds-of-Paradise, and a large supply of Crested-Pigeons. On June 12 there were offered 289 packages of Osprey (Aigrette) feathers and 11,841 Birds-of-Paradise, together with 72 Impeyan Pheasants, 2,514 pairs of Ptarmigan wings, and a more than ordinary number of Crested-Pigeons and of 'Vulture' (Rhea) feathers."

The above sale represents the death of many thousand of interesting and valuable birds, and, in the case of the Birds-of-Paradise, a species that is fast nearing extinction. It shows conclusively that education and pleading have but little effect on those who selfishly desire to sell for profit, and those who buy for personal adornment. The only way to stop such an unholy traffic, in the lives of these beautiful and innocent creatures, is to have enacted international laws, prohibiting the possession and sale of the feathers of *all* wild birds. It is now time for the Foreign Societies for the protection of wild birds to join with the American Society (National Association of Audubon Societies), in an attempt to secure an international agreement to prohibit possession, sale, export and import of the feathers of all wild birds.—W. D.

THE VIRGINIA CREEPER AS A WINTER FOOD FOR BIRDS.—In the July 'Auk' an interesting and valuable article is published on this subject. The concluding paragraph is a suggestive hint to all bird-lovers or land-owners. "The plant retains its fruit almost half the year and is therefore particularly valuable as an early spring bird food. To those who care to attract winter birds, the Virginia creeper, both from its usefulness in this respect and on account of its appearance, is to be recommended most highly."—W. D.





BLUE JAY

Order—PASSERES  
Genus—CYANOCITTA

Family—CORVIDÆ  
Species—CRISTATA



# The Blue Jay

By WILLIAM DUTCHER

President of the National Association of Audubon Societies

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## National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 22

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"And startle from his ashen spray,  
Across the glen, the screaming Jay."

It certainly is a tyro in bird study who does not know this noisy braggart fellow with his inquisitive ways. Such characteristics usually repel, but in the case of the Blue Jay they rather attract, and no one can help admiring this conspicuous member of the Corvine family. He has all the cunning of his somber-hued cousins the Crows, but not their sedateness; he is life and activity personified.

Another member of this family, the Magpie, attracted the notice of both Aristotle and Pliny, the former of whom says, "the Pica oftentimes changes its notes, for almost every day it utters different cries. When acorns grow scarce, it gathers them and keeps them hidden in store." The first statement refers undoubtedly to the power that the Magpies and Jays have of imitating the notes of other birds. The habit of storing food is also practiced by the American members of the family.

Pliny says, "not only do they learn, but they delight to talk, and, meditating carefully and thoughtfully within themselves, hide not their earnestness. They are known to have died when overcome by difficulty in a word, and, should they not hear the same things constantly, to have failed in their memory, and while recalling them to be cheered up in wondrous wise, if meanwhile they have heard that word. Nor is their beauty of an ordinary sort, though not considerable to the eye; for them it is enough honour to have a kind of human speech. However people deny that others are able to learn, save those belonging to the group which lives on acorns—and of these again those with the greatest ease which have five toes upon each of their feet; nor even they except during the first two years of life."

These two curious and interesting bits of ancient natural history show conclusively that the present interest in nature is by no means new.

Audubon, although he admired the beauty of the Blue Jay, did not give him a good reputation as the following pen picture shows: "Reader, look at the plate on which are represented three individuals of this beautiful species, —rogues though they be, and thieves, as I would call them, were it fit for me to pass judgment on their actions. See how each is enjoying the fruits of his knavery, sucking the egg which he has pilfered from the nest of some innocent Dove or harmless Partridge. Who could imagine that a form so

graceful, arrayed by Nature in a garb so resplendent, should harbour so much mischief;—that selfishness, duplicity and malice should form the moral accompaniments of so much physical perfection! Yet so it is, and how like beings of a much higher order, are these gay deceivers. Aye, I could write you a whole chapter on this subject, were not my task of a different nature.”

Alexander Wilson esteemed the Blue Jay a frivolous fellow: “This elegant bird is distinguished as a kind of beau among the feathered tenants of our woods, by the brilliancy of his dress; and, like most other coxcombs, makes himself still more conspicuous by his loquacity, and the oddness of his tones and gestures. In the charming season of spring, when every thicket pours forth harmony, the part performed by the Jay always catches the ear. He appears to be, among his fellow-musicians, what the trumpeter is in a band, some of his notes having no distant resemblance to the tones of that instrument. These he has the faculty of changing through a great variety of modulations, according to the particular humor he happens to be in. When disposed for ridicule, there is scarce a bird whose peculiarities of song he cannot tune his notes to. When engaged in the blandishments of love they resemble the soft chattering of a Duck; and, while he nestles among the thick branches of the cedar, are scarce heard at a few paces distance; but no sooner does he discover your approach than he sets up a sudden and vehement outcry, flying off, and screaming with all his might, as if he called the whole feathered tribes of the neighborhood to witness some outrageous usage he had received. When he hops undisturbed among the high branches of the oak and hickory, they become soft and musical; and his call of the female, a stranger would readily mistake for the repeated creakings of an ungreased wheelbarrow. All these he accompanies with various nods, jerks and other gesticulations, for which the whole tribe of Jays is so remarkable, that, with some other peculiarities, they might have very well justified the great Swedish naturalist\* in forming them into a separate genus by themselves.”

Of the more modern writers on the life-history of the Blue Jay, the late Major Bendire says: “Few of our native birds compare in beauty of plumage and general bearing with the Blue Jay, and, while one cannot help admiring him on account of amusing and interesting traits, still even his best friends cannot say much in his favor, and, though I have never caught one actually in mischief, so many close observers have done so, that one cannot very well, even if so inclined, disprove the principal charge brought against this handsome freebooter.”

It is an unfortunate fact that if a bad name is attached to a person or a bird it is hard work to live it down, even though the bearer has been condemned on hearsay evidence. The story of guilt may have been started on

\* Carl von Linné = Linnæus, born May 24, 1707, at Rashult, Sweden.

the most trivial evidence, but every time it is repeated it gains in strength and is soon magnified into huge proportions; and what might have been easily explained at the outset, by a careful examination into the facts, casts a life-long slur on the character of an innocent victim. Even so careful and exact a writer as the late Major Bendire is compelled to add, from his strict sense of justice, that he had "never caught a Blue Jay in mischief." The writer's experience with this bird is exactly parallel with that of Major Bendire, and he is therefore loth to believe all the bad stories that have been printed about the noisy, handsome Jay. In every village there is some boy who is not bad at heart, but is so full of animal spirits and life that whenever an act of harmless mischief is perpetrated it is immediately charged to him. This is very much the case with the Jay, "whose obtrusive actions attract attention when other birds, equally abundant, remain unnoticed."

Probably the most accurate brief respecting the Blue Jay's feeding habits that has ever been written is by Mr. F. E. L. Beal.\* A few extracts will show that much that has been written will not bear the scrutiny of exact scientific research. After citing three cases of field observers who saw Blue Jays in the act of sucking eggs or taking young birds, Mr. Beal adds: "In view of such explicit testimony from observers whose accuracy cannot be impeached, special pains have been taken to ascertain how far the charges were sustained by a study of the bird's food. An examination was made of 292 stomachs collected in every month of the year, from 22 states, the district of Columbia, and Canada. The real food is composed of 24.3 per cent of animal matter and 75.7 per cent of vegetable matter. The animal food is chiefly made up of insects, with a few spiders, myriapods, snails and small vertebrates, such as fish, salamanders, tree-frogs, mice and birds. Everything was carefully examined which might by any possibility indicate that birds or eggs had been eaten, but remains of birds were found only in two, and the shells of small bird's eggs in three of the 292 stomachs. One of these, taken on February 10, contained the bones, claws and a little skin of a bird's foot. Another, taken on June 24, contained remains of a young bird. The three stomachs with birds' eggs were collected in June, August and October. The shell eaten in October belonged to the egg of some larger bird like the Ruffed Grouse, and, considering the time of the year, was undoubtedly merely an empty shell from an old nest. Shells of eggs which were identified as those of domestic fowls, or some bird of equal size, were found in 11 stomachs collected at irregular times during the year. This evidence would seem to show that more eggs of domestic fowls than of wild birds are destroyed, but it is much more probable that these shells were obtained from refuse heaps about farmhouses.†

To reconcile such contradictory evidence is certainly difficult, but it

\*The Blue Jay and its Food. By F. E. L. Beal, Assistant Biologist, United States Department of Agriculture. (A valuable and interesting pamphlet for free distribution.)

†The writer knows of a case where Blue Jays are frequent visitors to a garbage vessel close by a kitchen door, even in summer, when other food is abundant.

seems evident that these nest-robbing propensities are not so general as has been heretofore supposed. If this habit were as prevalent as some writers have asserted, and if it were true that eggs and young of smaller birds constitute the chief food of the Blue Jay during the breeding season, the small birds of any section where Jays are fairly abundant would be in danger of extermination. Insects are eaten in every month in the year. The great bulk consists of beetles, grasshoppers and caterpillars. The average for the year is 23 per cent, but in August it reaches 66 per cent. Three-fourths of the Blue Jay's food consists of vegetable matter, 42 per cent of which consists of "mast," under which are grouped large seeds of trees and shrubs, such as acorns, chestnuts, beechnuts, chinquapins, and some others. Blue Jays prefer mast to corn, or indeed any other vegetable food, for they eat the greatest amount at a time when fruit, grain and other things are most abundant. The Blue Jay gathers its fruit from Nature's orchard and vineyard, and not from man's; corn is the only vegetable food for which the farmer suffers any loss, and here the damage is small. In fact, the examination of nearly 300 stomachs shows that the Blue Jay certainly does far more good than harm."

The Blue Jay has an extensive range, being found in eastern North America as far north as latitude 52, and, casually, a little further; it extends westward to about 100 west longitude, in Assiniboia, and south to about 97 west longitude in northern Texas. It breeds throughout its range, but in winter most northern birds move southward. In Florida, and along the Gulf coast to southeastern Texas there is a slightly smaller race, but the ordinary observer will not be able to note any difference. The nesting places vary very greatly as to kind of trees selected and position in the tree. Sites may be found in conifers and also in deciduous trees, and even in shrubbery. The nest is usually bulky, but compactly built of twigs, bark, moss, leaves and various other materials. A set of eggs varies from 4 to 6; the color is greenish or buffy, irregularly spotted with shades of brown or lavender.

As parents, Blue Jays are patterns. Whatever may be their reputation regarding the young of other birds, there is no question regarding their extreme solicitude for their own offspring.\*

Do not form your opinion about the Blue Jay from printed stories, but study this fascinating fellow for yourself and you will surely be captivated by his drollery and intelligence. There is certainly no more picturesque sight in bird life than to see a flock of Jays in the fall of the year flying with outspread tails, from one nut tree to another, screaming and calling to each other at the tops of their voices, or darting here and there among the gorgeously tinted foliage.

#### Questions for Teachers and Students

Is the Blue Jay found in your locality during the entire year? If not, when does it arrive? When does it leave in the fall? Give your opinion of the habits of the Blue Jay—this must be the results of your own observations of the live bird. How many different kinds of trees have you found Blue Jays nesting in? Give location of each nest and materials used in construction. Tell what you have personally observed about the food of Blue Jays. Who was Linnæus? What made him famous?

\* Read about Blue Jay life in 'A Bird-Lover in the West,' by Olive Thorne Miller.

# Bird-Lore



EDITED BY  
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETY  
BY

The Macmillan Company 1906

HARRISBURG, PA.

NEW YORK



# Bird = Lore

November - December, 1906

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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.

On receipt of your renewal we will send you the life-size, colored drawing of the Evening Grosbeak, which should be considered due notification of the entry of your subscription.

If you do not care to renew, will you please notify us.

Members and Contributors to the National Association of Audubon Societies are notified that they are entitled to, and will receive, the magazine as members of the Association.





- |   |                                    |
|---|------------------------------------|
| 1. BLACK-THROATED BLUE WARBLER, ADULT MALE.   | 4. CERULEAN WARBLER, ADULT MALE.   |
| 2. BLACK-THROATED BLUE WARBLER, ADULT FEMALE. | 5. CERULEAN WARBLER, ADULT FEMALE. |
| 3. BLACK-THROATED BLUE WARBLER, YOUNG MALE.   | 6. CERULEAN WARBLER, YOUNG MALE.   |

(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. VIII

NOVEMBER — DECEMBER, 1906

No. 6

## The Wry-bill Plover of New Zealand

By EDGAR F. STEAD, Christ Church, New Zealand

With photographs by the author

IN the central portion of the South Island of New Zealand is a large tract of flat country known as the Canterbury Plains. Stretching along the seacoast for over a hundred miles, the plains run back to the foothills some forty miles inland. There the ranges rise, one behind the other, in rough, broken country, extending over to the west coast, forming the Southern Alps. Now the tops of these ranges are, nearly all of them, over five thousand feet high, and are, in winter, thickly coated with snow. In the spring and through the summer, come the warm, rain-laden northwest winds, melting the snow and sending thousands of small cataracts leaping down the steep mountain-sides, carrying with them the stones and broken rocks from the barren slopes above. Along the gullies and the valleys the streams collect, forming large rivers, which, scarcely less turbulent than their tributaries, still roll the stones along, through wide sunny vales and dark rock-bound gorges out to the plains, and then straight to the sea.

The accompanying photograph of the Rakaia river, taken below the gorge, is typical of most of the Canterbury snow-fed rivers. On the right and left can be seen the level plains, with the hills beyond. The terraces here are nearly one thousand feet deep, and the river-bed one and one-half miles across. In the gorge, the sides of which may be seen, the river is under two hundred yards wide. Where the river widens out from below the gorge to the sea, the shingle\* carried down by the floods is banked up, and the shingle-beds and sand-spits thus formed are ideal bird haunts. Shags,† Gulls, Terns and Plover are to be found there during the summer, the first-named nesting in the trees or cliffs along the river-banks, the others making their nests on the shingle.

\*The round, water-worn stones, with most of the sand washed out, which form the larger portion of the river-beds.

† *Phalacrocorax carbo* is with us largely an inland bird, frequenting fresh-water lakes and rivers.

Among the Plover, one of the rarest and most interesting is the Wry-bill (*Anaryncbus frontalis*), which possesses the distinction of being the only bird in the world that has its bill bent laterally. It is of about the same size as, or slightly larger than, the Spotted Sandpiper of North America. The upper parts of its plumage are of a slaty gray color, while the under parts are white, with a black band across the breast. This coloration harmonizes perfectly with the shingle and sand of the river-beds where the bird breeds, and it is apparently well aware of this, for I have never yet seen it on those parts of



THE RAKAIA RIVER BELOW THE GORGE

Mt. Hutt, in the center, has an elevation of 7,200 feet. Note the 'Shingle' beds in the river

the river-bed which are covered with a moss-like vegetation. Standing still among the stones, the Wry-bill will watch you walk by. He does not squat down, nor evince fear, knowing that his color will almost surely protect him. Even when he knows he is discovered he is not greatly frightened, merely contenting himself with running a few yards and then standing still to watch you again, his bright, beady eyes never leaving you, while every now and then he gives a queer little hiccough. He does not readily fly when disturbed, but runs rapidly away among the stones, resorting to flight only if actually pursued. Yet he is swift and strong on the wing, flying low down over the river-bed in long, sweeping curves.

About half-way through August, the Wry-bills return from the seacoast of the North Island to their breeding-grounds. For four years I looked every season without success for one of their nests. I tramped the bed of

the Rakaia for days ; and took long trips down the river on a raft made of kerosene tins, without result. At last, returning one evening with a friend from a long walk in search of nests, we came on a female bird, and, after watching her for a while to see if she had a nest, we saw her squat down among the stones, and, on going up, found her two eggs. These were of a gray ground-color, marked all over with slightly darker gray and a few minute black spots. There was absolutely no nest, the eggs being partly buried in the soft, dry sand among the stones. As will be seen in one of the



MALE WRY-BILL PLOVER STANDING NEAR EGGS  
The picture shows the nature of the 'Shingle' beds

photographs, their color protection is of an order seldom met with even among bird's eggs.

The bird was very courageous, and, unlike most of the Plover family, made no attempt to lure us away from her treasures by shamming, but ran toward us with wings outspread and feathers erect, making a low, angry purring noise. She came within four or five feet of us at times, her indignation at our intrusion being augmented, no doubt, by the fact that her eggs were just hatching, both shells being chipped. During the time we stayed by the nest we did not see the male bird at all. I do not remember that the female rose from the ground once. As I had not my camera with me, we went back to camp, returning early next morning to photograph our



FEMALE WRY-BILL PLOVER SITTING ON EGGS  
The curvature of the bill is revealed by its shadow

prize. The hen-bird was sitting, and I walked up to within a few yards of her without seeing her, and she then ran off her nest toward me in her manner of the night before.

Still there was no sign of her mate, and it was not until I had photographed her on the nest, and near it, that his lordship put in an appearance. She was on the eggs at the time, and he ran straight up to her with a great show of authority and drove her off, chasing her away from the nest. He evidently wanted her to go away and feed, for, when she flew about twenty yards and then settled, he ran after her, and then she flew away off down stream.

Then he returned to the nest, and, sitting on the eggs, noticed us apparently for the first time. However, he did not seem to be as interested in us as we were in him, and he shuffled round on the eggs trying to get comfortably settled, while we got ready to photograph him. Somehow he did not seem to be able to arrange things to his satisfaction, for, presently, he got up and began turning the eggs over with his bill, and then he saw that something had happened to them that he knew nothing about. He hastily turned them chipped side downward, and walked round the stone at the back of the nest. He continued to trot round about the nest for some time, evidently in a state of great agitation and perplexity. He did not sit on the eggs again, but finally took up a position close to them, watching them with the most dejected look imaginable, his whole appearance expressing just about as much joy and ease as that of a bachelor who is holding a baby. And there we photographed and left him.



FEMALE WRY-BILL RESENTING INTRUSION

There has been much discussion as to the reason for the curved bill of this bird, but to any one who has watched the birds closely when feeding, the reason seems obvious. The curvature is toward the right, and the bird, when feeding, always keeps the stone under which it is looking for food on its right. The curved bill enables the bird more conveniently to get at its food. If, as frequently happens, it espies some grubs or other delicacies under a stone on its left, it turns right round before trying to pick them up. There is no doubt that the curved bill enables them readily to secure food which to a bird with a straight bill of the same length would be almost inaccessible. Against this argument is stated the fact the birds migrate to the estuaries and mud-flats in the North Island, where a curved bill is rather a disadvantage than otherwise. Still, the extra facility with which they can

obtain food during the breeding season on the river-beds would more than compensate them for any slight inconvenience they may experience during the winter. The whole bird is so entirely adapted to a life on the shingle that it seems quite probable that the winter migration is a recent development, and that at one time the bird stayed on the river-bed all the year.

The bird, as I have said, is getting very rare. The reason for this is not plain, as its natural enemies, the Hawk\* and the big Gull† are, at any rate no more numerous than they used to be; floods, we may say, are no more frequent; while its natural haunts are left practically unmolested. And yet it is dying out, and I fear that in the near future it will, together with many other of the native birds, become as extinct as the gigantic Moa.

\* *Circus gouldi*, the only Hawk frequenting the river-beds.

† *Larus dominicanus*, a large black-backed Gull which would doubtless eat any young Wry-bills it came across.

## Our Garden Mockingbird

By MRS. F. W. ROE\*

**D**URING the past four or five winters, one of my greatest pleasures has been watching the Mockingbirds in our grounds at Port Orange, Florida. Their graceful way of running over the lawn, every now and then stopping to uplift their wings, and their striking poses on trees and fences, was a never-ceasing joy to me. Their great pluck in attacking birds twice their size, including the strong-billed Woodpeckers, won my admiration, too. As is well known, this bird of wonderful song takes possession of a certain territory, usually where fruits and other foods can easily be obtained, and there he will make his home year after year, jealously guarding it from all intruders. Sometimes this territory will adjoin that of his friends, but quite as often it will be a long distance from any of his species. Over five years ago, a Mockingbird—we call him "Sir Roger de Coverley"—took possession of the grounds in front of our cottage, and ever since has laid claim to every tree, shrub, insect and worm that grows or lives there. We have often wondered at his choice of a home, for we are on the banks of the Halifax river, and the tree he makes his nightly home in is exposed to east and northeast winds direct from the ocean, which are often both cold and severe. In the back part of the grounds another Mockingbird lives, that has been named "Pirate" by a neighbor, whose white pansies he devours by the dozen, and these two birds have a boundary line that is never disregarded by either; that is, if one enters the territory of the other, there is a fight at once, unless the proprietor happens to be from home.

\* Readers of BIRD-LORE will recall Mrs. Roe's admirably illustrated article on Florida birds in the number for December, 1904.

Other birds live in the grounds, of course, but all are old residents and are graciously permitted to come and go as they please, provided they avoid certain trees. Roger has his own particular friends, and seems very fond of a little female Cardinal, and often gives a cheery call, when she comes to his tree. A Downy, also, is allowed to remain hours at a time, and even take naps on a small oak just inside one of Roger's side boundaries. One day, Downy and the Pirate disagreed over something, and the latter was driving Downy to his tree at a furious rate, when Roger, who is always on the lookout, saw them coming, and as soon as the Pirate had crossed the



A PORTRAIT OF "ROGER," OUR GARDEN MOCKINGBIRD  
Photographed from nature by Mrs. F. W. Roe

boundary line—he pounced upon him with a vicious "scat," and drove him back to his own territory, permitting the Downy to fly to his tree unmolested. Last winter we were frequently entertained most delightfully by the dancing of Roger with a bird that came from the grounds of a neighbor. This bird had much more white on wings and tail than any Mockingbird we had ever seen, that made her easily distinguished from all other birds, and, as she was seen twice to dance with the Pirate, and dozens of times with Roger, we concluded that it must be a female—Roger and Pirate are both singers, and were never seen to dance together. The dancing commenced early in January, long before the nesting season, and was seen almost every pleasant day until April, when they left us for housekeeping. There

seemed to be no favorite spot for the dance, as it apparently took place wherever the two birds happened to meet, which was most frequently on the front lawn. Roger appeared to be ready for a dance always, and as soon as lady White Wings would fly over the fence, and light on the ground, he would very soon be seen to join her, and taking a position in front of her, about three feet away, the two would instantly stretch their little bodies and necks to their greatest length, and with heads well thrown up, tails uplifted and wings drooping, they would stand perfectly still a second or two and admire each other. Then the dance would begin — and this consisted of the two hopping sideways in the same direction and in a rather straight line, a few inches at a time, always keeping directly opposite each other, and about the same distance apart. They would *chassez* this way four or five feet, then go back over the same line in the same manner. Often this *chassez* would be repeated five or six times, the birds always keeping in the same erect position. Once, I saw the female dart off to catch a particularly tempting miller, and swallow it as she hurriedly returned to her position in the dance. Roger, in the meantime, had stood perfectly rigid. One morning I happened to discover these two birds dancing on one of our verandas, and near the steps where there was a thick door-mat. In some way, Roger got on a line with the mat, and this he did not like, for, on his return, he hopped back a little to avoid it. This brought him up against the rocker of a settee at the other end of the *chassez*, but, instead of going back from this, as he had gone from the mat, he flew up on the seat of the settee, and was continuing the dance there, when White Wings flew away — evidently disgusted with such unusual performances of her partner. I was within a few feet of these birds at the time — just back of a screen door — and could see every turn of their eyes, and hear the scratching of their toe-nails as they hopped. Beyond this little noise of the feet, not a sound was to be heard. When the nesting season came, and these birds left us, the grounds seemed very lonely, and I was exceedingly glad then that I had persevered and finally succeeded in getting a few photographs of my favorite bird — Sir Roger de Coverley.





## Tame Wild Geese

By WALTER K. FISHER

With photographs by the author



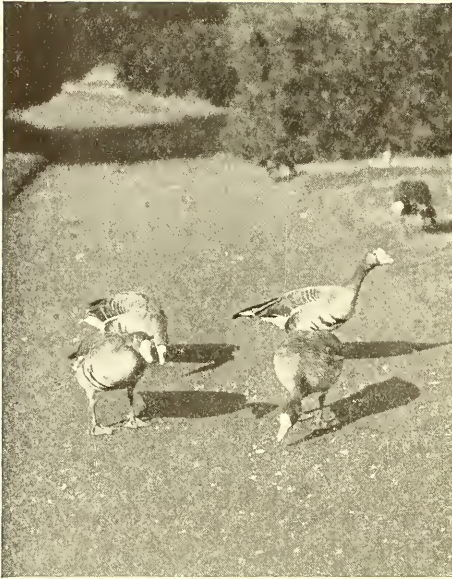
LESSER SNOW GOOSE

THE article entitled 'Tame Wild Ducks,' in March-April BIRD-LORE, suggests the recording of another and more remarkable illustration of the susceptibility of wild fowl to the lures of food and protection. During a visit from my father, Dr. A. K. Fisher, last winter, Mr. Joseph Mailliard took us to Stow Lake in Golden Gate Park, San Francisco. This park is on the western border of the city, and the lake is a small body of water, a part of which is in the form of a ring, from the presence of a large hilly island near the center. One end of the pond is fenced off, so that boats are not permitted to enter. Here the water-birds congregate in greatest numbers.

We visited the lake first on January 3, and found the water dotted with many Coots and Ducks, while along the banks numbers of Wild Geese sauntered like barn-yard fowl. Through Mr. Mailliard's foresight we were fully armed with bread, which attracted a horde of Coots or Mud-hens (*Fulica americana*) to our feet. At the first indication of food they raced toward us from all directions, creating a great commotion among the Ducks, which were resting or leisurely feeding at a slight distance from shore. Among the Ducks were Shovellers, Mallards, Baldpates, American Scaups, Lesser Scaups, Canvas-backs, Buffleheads, Golden-eyes and Ruddies. The first were by far the most numerous. Mr. Mailliard secured some good snap-shots of an



WHITE-CHEEKED GOOSE



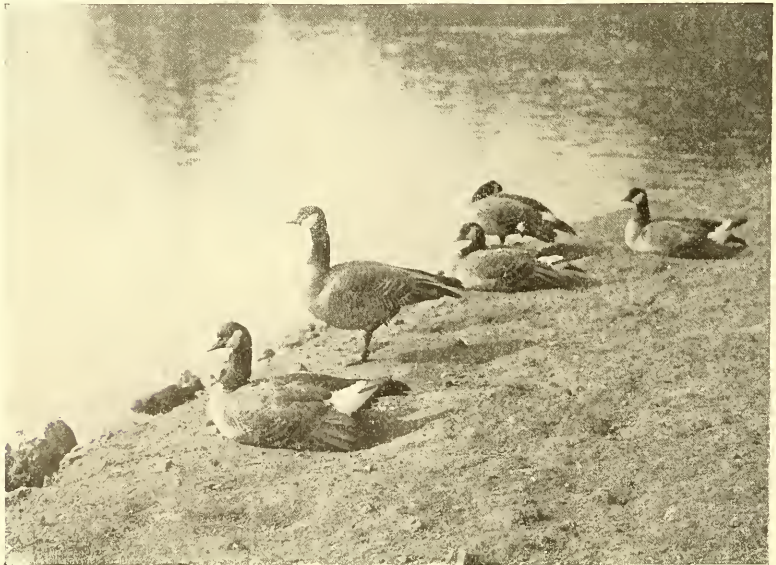
AMERICAN WHITE-FRONTED GOOSE

accommodating Canvas - back, which busied itself within six feet of us. The Shovellers moved about in a dense squadron, glean- ing something from the surface of the water.

The following week we spent another day at the park, and this time came armed with a camera for a preliminary attempt. As it turned out, this was our only chance, for bad weather pre- vented further trials. We found the Geese not difficult to photo- graph, the camera being focused from a tripod. It seemed strange to see Ross's and Lesser Snow Geese wandering along paths. bordering the lake, notwithstand-

ing numerous carriages and pedestrians continually passing.

The American White-fronted—sometimes, in California, called Gray Goose—was fairly common, but not so abundant as the combined numbers of three races of *Branta canadensis*—*hutchinsi*, *occidentalis* and *minima*. Hutchins's was the commonest form, and we secured a good negative of five.



HUTCHINS' GOOSE

of them sunning themselves on the shore of the lake. A White-cheeked Goose (*occidentalis*), which looked like a giant when compared with several *minima*, was particularly unsuspecting. While we were in the park a Wild Goose—a Snow, if I remember aright—called from high in the air and descended upon the lake. He was a new arrival.

We were at first skeptical concerning the genuine "wildness" of these birds, for it appeared remarkable that they should so soon lose their natural timidity. They are regularly fed, however, and are not molested, which is about all the magic there is in the transformation. The birds leave in the spring, presumably for their nesting grounds. I visited the park April 15, and found only a few White-fronted Geese, Mallards, California Eared Grebes, and Coots. Nearly all the birds had gone and one of the Geese was flapping wildly to get aloft, but its wing was clipped or injured.

My father kept a list of the birds seen the first day, with the approximate numbers. These are as follows: Mallard, 25; Baldpate, 10; Gadwall, 3; Shoveller, 150; Pintail, 1; Canvas-back, 1; American Scaup, 10; Lesser Scaup, 10; American Golden-eye, 5; Buffle-head, 5; Ruddy Duck, 25; Lesser Snow Goose, 15; Ross's Snow Goose, 2; American White-fronted Goose, 20; Hutchins's, White-cheeked and Cackling Geese, 50. Besides these were some tame Mallards and Black Swans, the latter always in the way when a picture was to be taken.



AMERICAN COOTS

# Italian Bird Life as it Impresses an American To-day

By FRANCIS H. HERRICK, Author of the "Home Life of Wild Birds"

With photographs by the author

"MADE to be taken and destroyed" expresses the general attitude of Italians toward the wild life of their country, and this ancient verdict upon birds was, without doubt, shared by many of the Mediterranean peoples. The Italians do not feel those sentiments of friendship and affection for the song-birds of the country, so common in England and Germany, as well as in most parts of America.

Twice in the year, in late fall and early spring, Italian shop-keepers fill their windows with "things for hunters," and the great army of migratory birds begins to pay the penalty of entering a hostile country. Throughout the length and breadth of the Peninsula, song- and game-birds, as well as birds of prey, are snared, netted and shot, with no discrimination as to size or kind, to be sent, with few exceptions, to the grill-houses of Naples and Rome, or to market in any of the larger Italian towns.

Strings of birds are hawked about the streets and hung in the windows of shops,—especially in the small markets, and in the *Rosticerie*, or grill-houses,—as was once a common custom in our southern cities from Baltimore to New Orleans, and probably has not wholly ceased in spite of the efforts made to suppress it. The dead birds are displayed on marble slabs or wooden tables, all neatly arranged in little piles on green leaves, and often plucked and ready for the spit.

In the markets of Italy are to be found, almost without exception, all the common birds of Europe. Indeed, the materials for the large and fine collection of stuffed birds in the Museum of the University of Rome have been almost wholly obtained from Roman markets, during the past fifty or seventy-five years. Larger birds, like the Snipe (*Gallinago caelestis*), are sold for one lira (twenty cents), while the smallest of the Warblers, and Finches, which can be strung like beads on a necklace, bring but a few soldi (one soldo or five centesimi, equaling one cent of American money).

At the rear of these *Rosticerie* a long, cylindrical grill is commonly seen in operation, roasting the spitted birds, poultry and meats for customers. The Roman grill is an ingenious contrivance, carrying from one to six or more spits, or long iron rods, which are made to revolve slowly over a charcoal fire by means of clockwork. The boy or man in attendance, who takes the place of the old-time turnspit dog, has little to do but remove the roasting titbits, transfix still other morsels of bird-flesh, interlarding them with shavings of pork, bacon or pig's liver, and replace the spits over the fire. Moreover, every well-equipped Roman household possesses its own grill, for they are made in many sizes, to operate which is only necessary to

set it up on the quaint little tile stove, light a handful of charcoal, and wind the clock. In every family where poverty is not extreme, roasted wild birds in season are considered an occasional, if not a regular article of diet.

This deplorable custom of indiscriminate slaughter of wild birds is very ancient,—thousands of years old,—and, as I shall show in a future article, there are abundant references to the evil practice among the classical authors of antiquity.

The resident population of Italian wild birds has naturally long ago been either reduced to a minimum or destroyed, except in the wildest and most rugged districts where the human inhabitants are few. Thus the great Bustard (*Otis tarda*), whose native race became extinct in England about 1838, may have been practically exterminated long before that period in Italy. In the Museum of the University of Rome there is a mounted specimen of this wonderful bird, a male, obtained from the Pantheon market in 1832.

The Rooks (*Corvus frugilegus*), Jays (*Garrulus glandarius*), Hawks, Owls and Gulls are shot to be eaten by the poorer classes or to serve as food for cats. I saw a man with a Crow on his string in the Piazza di Spagna in February, and frequently found Hawks (*Falco*) and Owls in the small Roman shops in winter.

On the other hand, the Swallows, which are fortunately too active and too expensive targets for all but expert Italian gunners, and the sociable Jackdaw (*Coleus monedula*—Italian *Taccola* or *Taccolletta*) acquire immunity at Rome by dwelling in the very heart of the city, and, in the case of the home-loving Jackdaw, for the entire year. In all Italy, however, it has been estimated that out of a total annual sacrifice of ten millions of wild birds, nearly a third or three millions are Swallows.

A substantial colony of Jackdaws has taken possession of the fine old brick tower of Borromini in the Santa' Andrea delle Fratre church and adjoining belfry under the Pincian hill. They were our next-door neighbors from October until June, and we seldom looked out of the window without a friendly glance at the rookery; indeed, it seemed as if a moment rarely passed by day when the colony was not astir, or when their welcome chatter did not reach our ears. The most striking change came over the Jackdaws at the close of February, when, under the influence of spring, their loquacity extended far into the night, and their quaint squealings were to be interpreted as notes of love. By the first of March their amorous strains began shortly after sundown, and were continued at intervals into the small hours of dawn, when you would hear their reiterative *we-ow! we-ow!*, now suggesting the wail of an infant, a prowling cat, or a whining puppy.

When I returned to Rome in May, Swallows had become very abundant, and after sundown it was interesting to watch their evolutions from the house-tops of the city. They seemed to restore, in some measure, that necessary touch of life long since departed from the Campagna. No doubt

the hundreds of church towers, the walls and arches of stone, brick and concrete, for which the ancient capital of the world has long been celebrated, form attractive nesting sites, and Father Tiber is ever there to receive them on his bosom.

With an interval of absence in spring, I spent over four months in Italy, from the last of October until the last of June, 1903-04, chiefly at Rome, and in the central provinces. Having walked and driven many miles in the country at the time of the year when birds should abound, I have received but one impression—that Italy has become a land without birds. The Roman Campagna, a rolling plain, framed by mountains, cultivated in



ALONG THE ROADS IN FERTILE UMBRIA, WHERE BIRDS ARE SELDOM SEEN  
Farmer with wooden plough leaving the fields, near Assisi, June 3, 1904

places, is a field of cloth-of-gold in June when the buttercups are in blossom, but when the Plovers should be piping, and the Larks and the Finches lifting up their voices, it is as silent as its buried villas, its ruined tombs and broken aqueducts, and as nearly destitute of birds as it now is of human inhabitants.

The peninsula of Italy forms an important route for the migrants, which, coming from the north and west of Europe, pass the bounds of the Mediterranean to winter in northern Africa, Egypt and the Nile valley to the Soudan and south of the equator. So the Italians have, for centuries, been killing not only their own birds, but those which belong equally to northern and southern nations.

"How to protect our migratory birds," thus becomes a difficult problem

in Europe. It is, first of all, a question of international agreement and legislation, for one may well ask "Of what use is it to protect the wild birds of England and Germany for the Italians to kill in their own country, or for Greeks, Latins and Arabs to destroy in the Nile valley, and other parts of the Levant?" It is fortunate, indeed, that the streams of migration from northern Europe do not all set in the same channel. It is true that in certain provinces of Italy there are laws designed to protect birds during the very brief period of breeding, but these are evidently designed for the benefit of the gunners, rather than of the birds, the broods of which can be killed before they leave the country.

How fare the crops of the Italian farmers in a country which is nearly destitute of birds, where winters are mild, where green things abound, and, as often happens in the latitude of Rome, frost keeps away for an entire season? Famously indeed, in many parts, and perhaps this is why Italians are dubious of the value of birds to agriculture, and indifferent to questions of their protection. As a rule, fruits are fair, and I have never seen finer vegetables than are offered in the markets of Rome; and these are pulled fresh from the ground all winter long—cauliflowers, and the even more delicate green broccoli of the same family, fennel displayed everywhere in attractive green and white braids on strings, gobbi—a kind of thistle—artichokes, celery, squashes, radishes of various kinds, and a dozen varieties of salad plants, not to mention many of the commoner sorts, and good vegetables and fruits not confined to Rome or the central provinces.

In the absence of birds what, then, holds the devastating hosts of insects in check, for insects abound in all warm countries where vegetation is luxuriant. This, in my opinion, is the lizard brigade,—those spry and cheerful little fellows in gray and brown "homespun," of which *Lacerta muralis* is the commonest kind, which are seen streaking it over walls and along the ground, in town and country everywhere. Both birds and lizards feed on insects, and help to keep their numbers in check, but some of the birds prey on lizards, thus fortunately a reduction in birds brings about a surplus in lizards. The reptiles succeed to the work performed by their "glorified descendants," and through their incredible numbers form a dynamic force equal to the great emergency. These little friends of the farmer and of mankind are so wonderfully protected by their coloring, so agile and shy, that the walker seldom sees but a small fraction of the numbers which he actually disturbs. Only occasionally is one caught peeping from behind a leaf or over a stone, and then we see only his sharp profile and keen eyes. It should be added, however, that with the reptile, as with the bird, perfect quiet begets confidence.

In order to appreciate the actual numbers of lizards which are present on a given spot of earth, one should take his station on a high wall, and watch the ground beneath. I counted eighteen lizards in a garden plot eighteen

feet square on the Pincian hill, the sixth day of March. When the eye was fairly focused and the attention was fixed on lizards, the ground seemed to be fairly alive with them, where at first glance no moving object was noticed. Every butterfly, moth or fly which alighted on the patch was immediately snapped up or frightened away. I also noticed that certain insects were very wary, and would hover over a flower, but hesitate to alight upon it, as if experience had taught them what to expect. One is reminded of the cautious behavior which many birds and other African animals display upon approaching a stream where the dreaded crocodile abounds. These lizards would glide rapidly, and come suddenly to a halt. It was difficult to follow them when in motion, and when they rested, they dropped out of sight altogether. The brown earth seemed to be continually swallowing and ejecting lizards.

In such a little garden plot as that on the Pincian, I believe that we have a picture of what is taking place all over the broad and sunny fields of Italy, which illustrates the biologic potency of lizards as destroyers of insects.

But Italy is a large and diversified country, and there, as elsewhere, the complex conditions of animal and plant life are neither constant nor uniform. Some of the progressive and best-informed Italians are beginning to examine the other side of the shield, as I shall show in a future article on bird protection in Italy, from the stand-

point of the Italians. The editor of 'The Italian Review' (*La Rivista d'Italia*)\* says: "There is no country where the dissatisfaction is greater, more general and more persistent, than in Italy. In a country which is to a large extent mountainous, there is no effort to check the destruction of the forests with the consequent drought and floods. There is little effort made to stop the ravages of malaria, under the curse of which the agricultural interests of the whole country are languishing, while at the same time the parasites which work havoc with the various agricultural products are not fought with any well-systematized government laboratory of research and discovery."



ITALY'S FRIEND—THE AGILE LIZARD  
Peeping over a stone in the ruins of Tusculum.  
May 27, 1926.

\*As quoted in a recent journal



After a sojourn of several months in Italy — such as I have described — one is impressed by the absence of living birds in the fields, and in the neighborhood of towns, and of the great numbers of dead birds in the markets during spring and fall. I speak only of what I saw, not of the many species of stuffed birds to be found in museums, nor of the thousands piled up like grain in the market-places. To catalogue most of these would not be difficult, and their presence is a sign that, true to their ancient instincts, the birds still attempt the passage of Italy on their migrations.

To speak more precisely, in going to Frascati, in the Alban mountains, fifteen miles southeast of Rome, on May 27, and in climbing to the heights of Tusculum, I spent many hours amid the most charming of Italian scenery, wandering over the ancient hillsides, once populous, but now strewn with ruins, and all but concealed by rank vegetation, green and sweet with bracken, splashed with fragrant masses of golden broom, the rocky pasture-land filled with blossoming minis, ferns, clovers, cinquefoils, lilies, hawkweeds, buttercups, poppies, gladioli, arum, not to speak of many flowering trees and shrubs. That day I saw only one bird, which was probably a Sparrow, excepting the Ravens and Swallows left behind in Rome. Yet, as if contributing to this unhappy state, in the beautiful Villa Aldobrandini, was a large case of stuffed birds, collected by some idle "Duke" in the neighborhood.

Again, in driving from Perugia to Assisi, and from Siena to San Gimignano, the latter a day's journey, through some of the most fertile garden spots of Italy, I saw but two or three small birds on both occasions, and this was the first week in June!

Italians seem to possess two rather contrary traits — marked kindness toward children, and cruelty toward animals. The English and American residents and visitors at the ancient capital, who organized the Roman branch of the Society for the Protection of Animals, — especially the long-suffering horse, — have found it very difficult to get even a nucleus of public spirit and sentiment in their favor. How much more difficult will it certainly be to arouse much enthusiasm for the cause of bird protection in a country where the habit of killing birds has become fixed by the universal practice of ages, where food is often scarce, and the spur of necessity is not lacking?





NESTING HABITS AND HAUNTS OF BRANDT'S CORMORANT ON AN ISLAND OFF THE PACIFIC COAST AT MONTEREY, CALIFORNIA

Birds mounted by Herbert Lang. Background painted by C. J. Hittell

From a series in the American Museum of Natural History

# For Teachers and Students

## The Migration of Warblers

NINETEENTH 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

### BLACK-THROATED BLUE WARBLER

#### SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
<i>Atlantic Coast—</i>			
Southern Florida . . . . .			March 9, 1886
Mt. Pleasant, S. C. . . . .			April 16, 1890
Asheville, N. C. (near) . . . . .	6	April 24	April 19, 1893
Raleigh, N. C. . . . .	11	April 27	April 6, 1888
French Creek, W. Va. . . . .	4	April 29	April 18, 1889
Washington, D. C. . . . .	7	May 2	April 27, 1888
Germantown, Pa. . . . .	7	May 6	May 1, 1888
Renovo, Pa. . . . .	9	May 3	April 27, 1902
New Providence, N. J. . . . .	6	May 6	May 1, 1894
Holland Patent, N. Y. . . . .	7	May 7	April 28, 1891
Hartford, Conn. . . . .	5	May 10	April 29, 1894
Central Massachusetts . . . . .	11	May 8	May 5, 1895
St. Johnsbury, Vt. . . . .	6	May 9	May 5, 1897
Lewiston, Me. . . . .	5	May 13	May 7, 1900
Quebec, Can. . . . .	5	May 11	May 7, 1900
Central New Brunswick . . . . .	8	May 14	May 9, 1904
<i>Mississippi Valley—</i>			
Brookville, Ind. . . . .	6	April 30	April 26, 1894
Waterloo, Ind. . . . .	9	May 5	May 1, 1895
Oberlin, Ohio . . . . .	7	May 2	April 27, 1896
Detroit, Mich. . . . .	10	May 4	May 1, 1894
Southern Ontario . . . . .	15	May 8	May 2, 1887
Parry Sound District, Ont. . . . .	12	May 10	May 6, 1899
Ottawa, Ont. . . . .	20	May 11	May 6, 1890
Lake Forest, Ill. . . . .	6	May 6	May 2, 1905
Chicago, Ill. . . . .	12	May 7	May 2, 1902
Milwaukee, Wis. . . . .	9	May 9	May 2, 1892

#### FALL MIGRATION

PLACE	No. of years' record	Average date of first one seen	Earliest date of first one seen
Lanesboro, Minn. . . . .	3	September 26	September 24, 1890
Chicago, Ill. . . . .	7	September 1	August 25, 1898
Detroit, Mich. . . . .	10	September 10	September 2, 1905
Oberlin, Ohio . . . . .	3	September 7	September 1, 1905
Beaver, Pa. . . . .	4	September 9	August 28, 1889
Germantown, Pa. (near) . . . . .	6	September 13	September 8, 1898
Washington, D. C. . . . .			August 21, 1887
Southern Florida . . . . .			September 3, 1885

## FALL MIGRATION—continued

PLACE	No. of years' record	Average date of last one seen	Latest date of last one seen
Ottawa, Ont. . . . .	4	September 29	October 7, 1900
Chicago, Ill. . . . .	7	October 1	October 10, 1897
Detroit, Mich. . . . .	10	October 3	October 15, 1905
Petitcodiac, N. B. . . . .			September 5, 1886
Montreal, Can. . . . .			September 24, 1887
Renovo, Pa. . . . .	7	October 6	October 11, 1897
Philadelphia, Pa. . . . .	7	October 10	October 21, 1888
French Creek, W. Va. . . . .	5	October 9	October 15, 1890
Raleigh, N. C. . . . .	8	October 17	November 19, 1885
Mt. Pleasant, S. C. . . . .			December 6

## CERULEAN WARBLER

## SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
Key West, Fla. . . . .			April 16, 1887
Raleigh, N. C. . . . .			May 8, 1893
Washington, D. C. . . . .	4	May 8	May 5, 1888
Beaver, Pa. . . . .	6	May 1	April 28, 1890
Northwestern New York . . . . .	3	May 7	May 5, 1885
Brownsville, Texas . . . . .			April 14, 1890
Northern Texas . . . . .	3	April 19	April 15, 1887
New Orleans, La. . . . .	2	April 9	April 8, 1898
Eubank, Ky. . . . .	5	April 15	April 5, 1892
St. Louis, Mo. . . . .	5	April 17	April 12, 1897
Brookville, Ind. . . . .	6	April 27	April 19, 1889
Oberlin, Ohio . . . . .	9	May 3	April 29, 1899
Chicago, Ill. . . . .	4	May 14	May 11, 1893
Petersburg, Mich. . . . .	10	May 2	April 25, 1886
Detroit, Mich. . . . .	7	May 5	May 1, 1904
Southern Ontario . . . . .	6	May 7	May 3, 1889
Grinnell, Iowa . . . . .			May 3, 1888
Lanesboro, Minn. . . . .			May 5, 1887
Onaga, Kans. . . . .			May 4, 1896

## FALL MIGRATION

The Cerulean Warbler is one of the earliest to start south and reaches the coast of Louisiana and Mississippi on dates ranging, in different years, from July 12 to 29. The birds are most numerous there early in August. The latest migrants have been noted at London, Ontario, September 1, 1900; Livonia, Mich., September 1, 1892; Beaver, Pa., September 14, 1889; Berwyn, Pa., September 27, 1889; Eubank, Ky., September 14, 1887; Chester County, S. C., as late as October 22.



RUFFED GROUSE ON NEST  
Photographed from nature by James H. Miller, Lowville, N. Y.

## Bird-Lore's Seventh 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 twenty-five lists received in 1900, it has grown to ninety-nine lists in 1905.

Reference to the February, 1901-1906 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 Amount of Science in Oölogy

To the Editor of BIRD-LORE.

*Dear Sir:*—I have been much interested in the articles that have been published in the last two numbers of BIRD-LORE relative to the value of the study of oölogy. Some of the statements of Mr. R. P. Sharples, in your last number, seem to me to be so illogical that I will ask of you a small space for criticism.

While not questioning the value of the observations and data of Baird, Davie and others, of the prominent oölogists, the fact remains that at the present time the field of oölogy has been sufficiently covered, and any one who desires to study on such lines as measurements and coloration can obtain, without difficulty, ample data from the many published observations and public museums, without forming a private collection.

But the main error of his article lies in his claim that the knowledge of bird life in general, of their songs, nesting habits, food and characteristics, is obtained only in the collecting of eggs, or, in his own words, that he "would not have learned them if he had not been hunting eggs." As if a man must have other incentive than the love of nature itself to take him into the glorious country! Is not that sufficient to attract one to the haunts of the birds, to make him study and watch their nesting habits, to hear their songs and observe their traits as exhibited in the various species?

I am not an egg-collector, or oölogist if the word sounds better, yet am proud to say that in a busy business life I can find time to spend some six or eight weeks of each year in the woods and fields and find it very enjoyable too, even without bringing home some egg-shells. I, too, have found even as many nests in a month as he mentions, yet could see no reason for robbing them. I have learned much of the bird songs, have seen many of the various eggs, have some fine photos of birds and their nests, have watched the feeding of birds, and know, from my own observations, of their advantage to man to a greater or lesser degree. I also know that birds have enemies, that the Cowbird and red squirrel, the snake and house cat are all destructive to bird life, and that the weather in spring has much influence on the rearing of young birds,—yet I did not have to collect their eggs to find it out. When a man knows the enemies the birds do have, it would seem that he would not desire to add one more to the list.

If a man can not find enough attraction to call him to God's beautiful out-of-doors, when the birds are singing their sweetest songs and the green things putting on their gayest attire, without needing the excuse of robbing bird's nests, scientifically or not, he is, to my mind, neither a lover of nature nor of birds.

Very respectfully

FRANK A. BROWN.

### Bird-Lore's Colored Plates

WITH the publication in this number of BIRD-LORE of the twenty-fourth plate, the series of colored plates of North American Warblers is completed. While, in some instances, these plates have not reached our standard, we may, nevertheless, say without fear of contradiction, that of no other family of North American birds does so adequate a series of colored plates exist.

We shall now take up the Thrushes,—and the plates already made are even more satisfactory than those of the Warblers, although the subjects are more difficult.

The Thrushes will be followed by the Flycatchers, which will be reached in the next volume of BIRD-LORE. and, in this time, we hope to figure in color every species of North American bird.

# Notes from Field and Study

## Bird Tragedies

Into the experience of every bird student have come some examples of tragic deaths and accidents to our feathered friends, other than the deaths caused by predatory creatures.

Often in the migrations birds perish in storms, sometimes in large numbers, as was recorded by Dr. Roberts, of Minnesota, at the last Congress of the American Ornithologists' Union, in the case of the Lapland Longspurs, when in a single night in southern Minnesota and northern Idaho, according to a careful estimate, a million birds perished. Again, the search for food, or the nest-building, may lead birds into unforeseen danger which results disastrously. The writer recalls that in the summer of 1903 he and a friend found a nearly complete nest of the Baltimore Oriole from which hung the dead body of the female bird. A horsehair used in the construction had become twisted

about her neck and she had been strangled to death.

Last April, Mr. Charles H. Alexander sent to the office of the National Association of Audubon Societies a branch of burdock, to the burs of which the mummified remains of an American Goldfinch were firmly attached, found in Belmont county, Ohio. Seeking the seed, the bird had alighted on something worse than a bird-lime trap. Some eighteen years ago the writer remembers finding an identical case near Rochester, N. Y., where a Golden-crowned Kinglet was the victim.\*

Cases where young Barn Swallows become tangled in the horsehairs of the nest-lining and break a leg or are choked to death are not infrequent. It has been widely recorded how the weather during the year 1904 brought disaster to many a bird home and family of young. In many cases, even the adults were unable to obtain their accustomed insect food, and died in the retreats which they sought from the storms.

As in the life experience of man, so in the life of birds, some of the many accidents which befall the birds may easily be averted by man, by means of a little forethought for his "little brothers of the air," and the time will probably come when agriculturists realize that it is for their practical benefit to take such precautions as the furnishing of food and shelter in the winter, the destruction of predatory animals, and the removal of such dangers to the small insect-eating birds, as the burdocks from the fence-rows and waste spots of the farm.—B. S. BOWDISH, *National Association of Audubon Societies, New York City.*

## Adirondack Notes

While on my vacation this summer, at Long Lake in the Adirondacks, I successfully used, in the identification of numerous

\*The American Museum of Natural History has recently received from C. C. Warren, White Plains, N. Y., the remains of a Hummingbird which met a similar fate.—ED.



AMERICAN GOLDFINCH ENTANGLED IN  
BURDOCK

Photographed by B. S. Bowditch



birds, a small two-inch telescope. This glass was intended for mountain climbing, and was fitted with a strap for carrying over the back, and I expected to use it for this purpose, but found, to my surprise and delight, that it was invaluable for the observation and certain identification of distant bird life. Many birds are in the habit of perching, and remaining for little periods of time, on tall tree-tops; and, by resting the glass on the nearest stump or fence, it proved a most practical instrument for observing them.

In the three short weeks of my vacation, I accurately distinguished 66 varieties, which, for the period of the year (August) and the well-known scarcity of birds in this region, seemed quite remarkable.

A very pleasant feature was what might be called the naturalness of the bird action revealed. Owing to distance, they would pay little or no attention to my presence, and many pleasant pictures resulted,—a small flock of Grouse rolling in the dust of the roadway; an Arctic Three-toed Woodpecker hammering on a far distant tree; a large Hawk, pluming himself and even yawning as if he was tired and sleepy; a Ring-billed Gull, a vision of dazzling white; an Indigo Bird, standing sentinel on the top of a tall tree, in the midst of an old field, his nest probably near by, and a family of Purple Finches.

Pine Siskins were numerous, but extremely shy, flying rapidly in small flocks, and alighting only in far distant trees, quite indistinguishable with the ordinary field-glass. The Cedar Waxwing, at this time of year, is much given to the tall-tree habit, flying high and rapidly, in small flocks of three or four, and hardly seemed the bird of our orchards we know so well.

A Tufted Titmouse was the most unlooked for and unexpected find, while Kingbirds proved common around Buttermilk Falls and the Racquette river. I had hitherto thought of this bird only as one of pasture and farm, and to find him at home, in numbers, along this lonely mountain stream, was quite unlooked for and unexpected.

Occasionally, small flocks of Warblers and Vireos would appear, apparently begin-

ning their fall migration, the natty and beautiful Black-throated Blue being quite common among them. I counted nine species at one resting-place, including Chickadees and Winter Wrens.

Yet bird life here is not abundant. The woods seem strangely silent, and to the ordinary observer it must seem; what we so frequently hear them say, that "there are no birds in the woods." The hunter and the "boy with the gun" are the curse of this country, to the nature-lover.

Where formerly the Fish Hawk and the Bald Eagle, and what we might call the natural wild life of the forest lake, and stream—the Herons, Kingfishers, Ducks, Loons and Gulls—were abundant, they have now nearly disappeared. Years ago, we could watch this wild life from the hotel piazza, but now not even the croak of the bullfrog can be heard; all have nearly or quite disappeared, a sacrifice to the craze to kill.—WM. M. STILLMAN, *Plainfield, N. J.*

#### Remarkable Flight of Red-breasted Nuthatches

During a vacation spent on Fire Island Beach, New York, in September, a remarkable migration of these birds was observed. Point o' Woods is a cottage settlement, on the barrier beach, at this point about one thousand feet wide, between the ocean and Great South Bay, which is here eight miles wide. The soil is sand-covered with a rank growth of weeds of various kinds, low bushes, scrub-oaks and small pines. On the night of September 20, it was very damp, with a moderate southwest wind and a number of showers. On the morning of the 21st the wind still continued southwest, very moderate, with a temperature of seventy-four degrees at seven A. M. During the night there must have been a great flight of Red-breasted Nuthatches, for they were seen on the morning of the 21st in large numbers. They remained all that day, although there seemed to be a steady movement to the west, which here is the autumn direction of migration. During the night of the 21st, we had more showers, and on the 22d, the wind was strong southeast, with some rain. There

was a large migration of small birds during the night, as the bushes were full of Towhees, Cuckoos and Kingbirds, and the Red-breasted Nuthatches were more numerous than the day before. They outnumbered the sum total of all the other small migrants. On the 23d, large numbers of them still were in evidence, but not so many as on the 22d, and on the 24th only a few were seen.

The flight covered three days—21st to 23d—while on the 24th the stragglers brought up the rear, a lone laggard being seen on the 25th. At the height of the migration, Nuthatches were seen everywhere,—on the buildings, on trees, bushes, and weeds and even on the ground. They were remarkably tame and would permit a near approach; if the observer were seated they would come within a few feet of him. They crept over the roofs and sides of the houses, examining the crevices between the shingles; they searched under the cornices on the piazzas and in fact looked into every nook and corner that might be the hiding-place of insects.

Every tree had its Nuthatch occupant, while many of them evidently found food even on the bushes and larger weeds. On a large abandoned fish factory at least fifty of these birds were seen at one time. The proprietor of one of the hotels told me that five of the birds were in his building catching flies, they having come in through the open doors and windows. They are expert flycatchers in the open, as many of them were seen to dart after flying insects after the manner of the true Flycatchers. It would be exceedingly interesting to know how large a territory this migration covered and to get some records of it from stations north and south of this point of observation, in order to see the rate at which the birds traveled.—WILLIAM DUTCHER, *New York City*.

#### The Blue Jay as a Destroyer of Eggs and Young Birds

For more than ten years the Blue Jays have been very abundant about our house, and near our summer home. For several winters I have had a window-board to which they have come regularly and very

freely for food, and no English Sparrow has come near my windows while the board was in place, and the Jays were constant visitors. In the winter of 1904-5 I did not put up the window-board, the Jays sought food elsewhere, and English Sparrows built nests in the vines on the house, behind the rain-pipes and on copings.

In the spring a brood of Sparrows hatched in a nest near my window, and one day I was startled by a great screaming and squawking near this nest. I found a Jay in the act of carrying off one of the young Sparrows, while all the old birds in the neighborhood were protesting clamorously. On each of five days following this, a Jay seized a young Sparrow from this nest, sometimes flying to a distance with it, but, more than once, devoured the Sparrow on a branch of the nearest tree.

These Sparrows were not feathered, but I have seen the Jays capture and eat Sparrows with tails over an inch long and fully feathered.

In the summer of 1905, each brood which the Sparrows undertook to rear on the house, near my window, was eaten by the Jays.

In Brandon, Vt., I have seen a Jay try to steal the eggs of a Chipping Sparrow and fail only because the clamor of all the small birds near by called me to the rescue. Even then I had to stone the Jay in order to make it fly away. It did get one of the young, at least, soon after they were hatched.

We have many, far too many, English Sparrows in Brookline; but I am sure that the Jays keep the number from increasing even more rapidly, and I count this to their credit. Their destruction of other birds is a very great disadvantage, and a characteristic which must count against their value.

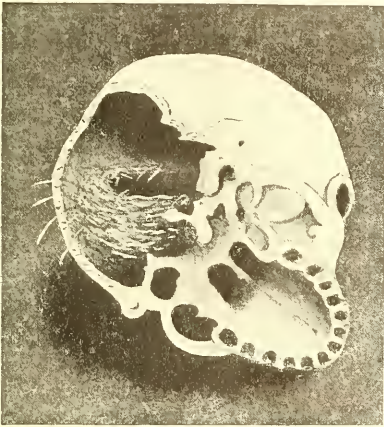
My observation in three places not near each other, convinces me that Jays will eat eggs and young birds whenever they can get them, and that they will bear much opposition in order to get them.—CAROLINE GRAY SOULE, *Brookline, Mass.*

[BIRD-LORE would welcome observations on the feeding habits of Blue Jays from ornithologists living in the Mississippi Valley where the abundance and familiarity of the bird give unusual opportunity for study.—ED.]

### A Nest Within a Human Skull

Never a year passes, but we read of curious places in which our little feathered friends have built their nests. Of all strange places, probably, no pair of birds ever selected a stranger than did a pair of Cape Wagtails, which built their nest within the recesses of a human skull.

Whether the large opening at the base of the skull was caused by shot or shell or by



A NEST IN A SKULL  
Drawn by R. B. Macmillan

the combined efforts of the two Wagtails, remains an open question in the writer's mind. But this is certain, the nest is very snugly built within, and ample room is left above for the sitting bird, and, furthermore, almost perfect protection from wind and rain is granted by the osseous dome above.

The accompanying illustration is from the original nest in the Natural History Museum, in London, Eng.—ROBT. B. MACMILLAN, *Buffalo, N. Y.*

[A similar site was selected by a pair of House Wrens, at Sing Sing, N. Y.; as has been recorded by Dr. A. K. Fisher, by whom the skull containing the nest was presented to the United States National Museum.—ED.]

### Black Terns Near New York City

In the vicinity of New York City, the months of August and September, just past,

were noteworthy for a heavy migration of the Black Tern. The first ones were noticed on the lower Hudson river early in August, and the birds were common until the end of September. Several were seen during the first week in October, two on the 6th being the last noted by me, and I am informed that a few were seen as late as the middle of the month. They were also seen in numbers about Staten Island, and on Newark Bay, N. J.

For several weeks the Terns were very common. As many as fifteen or twenty were often in sight at once. At times most of the birds were flying down stream as though migrating southward, but on other occasions as many were seen winging their way in the opposite direction.

Dr. L. B. Bishop informs me that none were observed on Long Island Sound in the vicinity of New Haven, Connecticut. This is rather surprising, in view of the abundance of the birds near New York City, and seems to indicate that the migrants did not travel along the coast, but came directly from the north or northwest.—W. DEW. MILLER, *American Museum of Natural History.*

### Pine Siskins in Ohio

We have been greatly interested, this autumn, in the Pine Siskins. They are usually somewhat rare migrants in this section, but, the present season, have been very numerous. During a most unseasonable and heavy snow in early October, these little birds surrounded our houses and literally skimmed the outer walls of all insect life. From foundation to eaves they hunted in every nook and corner, capturing spiders, flies, cocoons, etc. As they flitted in their hunt, they beautifully displayed the sulphur yellow markings of wings and tails. They seemed very tame, often lighting on the window-sills to devour any large catch.

Our bird books record no such habits on the part of the Siskins, which we supposed to be exclusively seed-eaters. Perhaps the emergency of the snow turned them to unusual food channels. Have such habits been noticed or reported by others?—MRS. JOSEPHINE L. PARSONS, *Chardon, Ohio.*

The Twenty-fourth Annual Congress of the  
American Ornithologists' Union

PROGRAM

The twenty-fourth Annual Congress of the American Ornithologists' Union was held in Washington, D. C., November 12-15, 1906. Twenty-four Fellows were present, a number exceeded on only one occasion, and there was a large attendance of members and associates.

At the business meeting held on the evening of November 12, the officers of the preceding year were reelected; Mr. W. L. Sclater, of Colorado Springs, Colorado, was elected to Corresponding Fellowship, and Waldron DeWitt Miller, of New York City, and Arthur T. Wayne, of Charleston, South Carolina, were elected members. An amendment to the constitution was passed increasing the limit of the class of Members from seventy-five to one hundred.

The public sessions of the Congress were held in the lecture room of the United States National Museum, where the papers included in the appended program were presented.

Most noteworthy among these papers were Mr. Nelson's account of his and Mr. Goldman's remarkable horseback journey of 2,500 miles in Lower California, and Mr. Finley's description of his surprising experiences with a pair of Condors whose nest was found near Pasadena, California, in the spring of 1906. Mr. Finley exhibited a series of thrilling photographs, taken by Mr. Bohlman and himself, some of which showed both adult Condors at arm's length. A study of the young Condor was made from the time of its hatching until it had assumed its flight plumage.

Of special interest, also, were the announcements of the discovery of the breeding of Bachman's Warbler in Kentucky by Embody, and in South Carolina by Wayne.

As usual, the social features of the Congress were most enjoyable. A luncheon was served each day at the public session by the Washington members of the A. O. U. and members of the District of Columbia Audubon Society, and the annual dinner of the Union, attended by about one hundred guests, was held at the Riggs House on the evening of November 12.

'A Plea for the Killdeer,' William Dutcher; 'Where Wild Birds Sleep,' Irene G. Wheelock; 'Some Experiments with Nesting Boxes' (illustrated with lantern-slides), E. H. Forbush; 'Ornithological Notes from the West' (illustrated with lantern-slides), Frank M. Chapman; 'The Home Life of the California Condor' (illustrated with lantern-slides by H. T. Bohlman and W. L. Finley), W. L. Finley; 'Notes on the Early Life of Loon Chicks,' C. William Beebe; 'The Effects of Intense Humidity on the Colors of *Zonotrichia*, *Hylocichla* and *Scardafella*,' C. William Beebe; 'The Life Zones of New York State as Determined by its Avifauna (illustrated with lantern-slides), E. Howard Eaton; 'The Habits of a Young California Condor' (illustrated with lantern-slides by H. T. Bohlman and W. L. Finley), W. L. Finley; 'Exhibition of Lantern Slides,' William L. Baily; 'A Review of Genus Junco,' Jonathan Dwight, Jr.; 'Summer Bird Life of the Newark, New Jersey, Marshes,' Clinton G. Abbott; 'The Status of the Rio Grande Seedeater,' J. A. Allen; 'On Horseback Through the Deserts of Lower California' (illustrated with lantern-slides), E. W. Nelson; 'Imitation in Bird Music—A Study of Wood Thrushes,' Henry Oldys; 'Interesting Bird Songs Noted in 1906,' Henry Oldys; 'Present Conditions of Gull and Tern Colonies on the Atlantic Coast,' William Dutcher and B. S. Bowditch; 'On the Eastern Forms of *Geothlypis trichas*,' Frank M. Chapman; 'Delaware Valley Wild Fowl—Past and Present,' S. N. Rhoads; 'Bachman Warbler Breeding in Logan County, Kentucky,' G. E. Embody; 'The Nest and Eggs of Bachman Warbler, taken near Charleston, S. C.,' Arthur T. Wayne; 'A Question of Right Nomenclature,' William Palmer; 'A Species or a Subspecies?' William Palmer; 'Trails of a Naturalist in Nevada' (illustrated with lantern-slides), H. C. Oberholser; 'The Wood Thrush of the Glen,' Jane L. Hine; 'Some North Carolina Birds' (illustrated with lantern-slides), by T. Gilbert Pearson.

# Book News and Reviews

THE NORTH AMERICAN EAGLES AND THEIR ECONOMIC RELATIONS. By HARRY C. OBERHOLSER. Bulletin No. 27, Biological Survey, U. S. Dept. of Agriculture, Washington, 1906. 8vo. 31 pages, 2 illustrations, 2 maps.

Mr. Oberholser here presents biographical sketches of the Bald, Gray Sea, and Golden Eagles, and a summary of the ascertainable knowledge of their food habits.

Of the first-named, he concludes that "all things considered, the Bald Eagle is rather more beneficial than otherwise since much of its food is of little or no direct economical value, while the good it does more than compensates for its obnoxious deeds; and, furthermore, it seems not likely ever to become abundant enough in any locality to be seriously destructive."

The Gray Sea Eagle is considered "to do more harm than good," but "in North America the species occupies an area so small and so far to the northward that it is not likely ever to become an economic factor of importance."

The Golden Eagle is stated to be good in some respects but bad in others, and, on the whole, is believed to be "more harmful than beneficial."

Mr. Oberholser has evidently weighed the available evidence, for and against, carefully, and pronounced an unbiased verdict. In our opinion, however, it is extremely undesirable either to commend, or condemn, any animal as a *species*. A bird's food habits may vary so greatly with locality that it is as deserving of protection in one place as it is unworthy of it in another. Mr. Oberholser, himself, shows that in western California the Golden Eagle is eminently beneficial as a destroyer of spermophiles.

Why saddle, therefore, on the Golden Eagles of this region the sins of the sheep-killing Eagles of Wyoming? In cases of this kind, would it not be more just to summarize the results of economic investigation in such a manner that one may readily determine where a bird is useful, where harmful, rather than to present a generalized

conclusion in which the elements of good and evil are considered without reference to place?—F. M. C.

DISTRIBUTION AND MIGRATION OF NORTH AMERICAN DUCKS, GEESE AND SWANS. By WELLS W. COOKE. Bulletin No. 26, Biological Survey, U. S. Dept. of Agriculture, Washington, 1906. 8vo. 90 pages.

The rapid decrease of the birds of which this bulletin treats, due to excessive shooting and settling of their breeding-grounds, requires the application of more stringent measures of protection if the birds are to be preserved.

Professor Cooke has therefore brought together the existing knowledge concerning the breeding and winter range, routes and times of migration, in order that these data might be available for legislative purposes.

The work has, of course, much purely ornithological value, also, and to sportsmen should be especially interesting for the exact information it contains, as well as for comparison of its dates with those they have recorded through personal observation.—F. M. C.

CAMP KITS AND CAMP LIFE. By CHARLES STEDMAN HANKS. New York. Charles Scribner's Sons, 1906. 12mo, xii+259 pages; numerous half-tones.

Your genuine camper, who camps not primarily to hunt or fish, but for the love of life in the open, generally has his own way of doing things, and; as Mr. Hanks says, will never accept advice about his kit or admit that another man's kit is better than the one he has packed himself. We believe, however, that even a veteran of the woods would find valuable pointers in Mr. Hanks's book, while to the fortunate one who has still to learn the tricks of camp-life it should prove a guide, counselor and friend.

The illustrations illustrate, and the small one of a Ruffed Grouse, on page 177, is worthy of a full-page in BIRD-LORE!—F. M. C.

**BOULDER REVERIES.** By W. S. BLATCHLEY, Indianapolis, Ind. Nature Pub. Co., 1906. 16mo, 230 pages, 10 full-page half-tones.

Here is a series of pleasing, restful nature essays by a man who is a somewhat unusual combination of poet and scientist. There is no doubting the sincerity of the sentiment which has prompted expression in these "Reveries," and which, in no small measure, has helped their author to share his joy in the life of the fields with his readers.

At the same time, Mr. Blatchley conveys much interesting information concerning the flowers, insects, beasts and birds of which he writes.—F. M. C.

#### The Ornithological Magazines

**THE AUK.**—The July number opens with a paper by W. Stone, entitled 'Some Light on Night Migration.' A conflagration in Philadelphia on March 27, as a matter of fact, threw a great deal of light on a host of passing night migrants! Some of them fell into the flames, but the vast majority pressed steadily on their northward line of flight. On a later page Mr. Stone gives a valuable review of Audubon's works, with exact dates of publication, lists of new species, corrections and other matter.

An able contribution from the pen of L. Stejneger, 'Isolation versus Natural Selection,' contains much food for speculative minds, it being practically a review of H. O. Jenkin's recent paper on variation in the Hairy Woodpecker. The 'List of the Birds of Louisiana' is continued by Messrs. Beyer, Allison and Kopman, the present instalment dealing chiefly with migration; and an unusual bird wave of Snowy Owls is discussed at length by R. Deane, who also contributes several more unpublished letters of Audubon and of Baird.

The Quail of Santa Catalina Island, California, is described as a new species, *Lophortyx catalinensis* by J. Grinnell, and among 'General Notes' we find a Hummingbird new to the United States fauna recorded from Arizona by L. B. Bishop. The bird is a young *Uranomitra salvini*, of which Mr. Brewster described the type and only

other known specimen. Of special interest are H. F. Tufts' notes on the nesting of both species of Crossbill in Nova Scotia. In A. W. Butler's notes on Indiana birds, some measurements are given to the thousandth part of an inch. The utility of such refinement applied to birds' wings, tails, etc., is certainly questionable.

The October number of 'The Auk' opens with 'Some Unpublished Letters of A. Wilson and John Abbot,' by W. Stone; followed by extended 'Ornithological Notes from Western Mexico, etc.,' summed into a local list, with illustrations of Boobies, Man-o'-War and Tropic Birds at home by H. H. Bailey. Another local list of 'Birds Observed in the Florida Keys' is by H. W. Fowler, and there is one by J. T. S. Hunn on the birds of Silver City, New Mexico. Still another is by J. H. Fleming on the 'Birds of Toronto, Ontario,' the last deserving of special mention because dates and records seem to have been sifted with unusual care and accuracy.

A. H. Clark, writing on 'The West India Black Forms of the Genus *Cæreba*,' considers the black Honey Creepers of St. Vincent and of Grenada merely color phases of the normal Creepers of these islands. W. H. Bergtold writes pleasantly 'Concerning the Thick-billed Parrot' of Mexico; C. J. Hunt describes the 'Change of Location of a Crow Roost,' and I. G. Wheelock gives details of the 'Nesting Habits of the Green Heron.' C. W. Beebe observes 'The Spring Moulting of *Larus atricilla*' in a captive Laughing Gull, a photograph showing the winter and the summer hood. He calls attention to the peeling of the sheath of the bill, the color beneath being brighter.

The odor of gasoline at last pervades even the pages of the staid and respectable 'Auk,' for there is contained therein an up-to-date article 'A-birding in an Auto,' by M. S. Ray. Its value as a list is questionable,—111 species in 1,100 miles!—for, while the descriptive portion is entertaining, the hasty list seems superfluous.

The 'Auk' is to be congratulated on completing its twenty-third year, 518 being the number of pages put forth with unimpaired vitality in 1906.—J. D., Jr.

THE CONDOR.—The frontispiece of the September number of 'The Condor' is a reproduction of a photograph, taken by Dr. A. K. Fisher, of a remarkable oak tree, at Stanford University, showing the work of the California Woodpecker in studding the limbs with acorns. The plate is accompanied by explanatory notes by W. K. Fisher on the location of the tree and the manner in which the acorns "are inserted and wedged in so tightly as to defy anything but steel." Mrs. Bailey contributes two short articles on the nests of the Western Flycatcher and the Desert Sparrow, each illustrated by photographs of nesting sites in New Mexico. 'Among the Flathead Birds,' by P. M. Silloway, is devoted chiefly to notes on the nesting of the Audubon and Townsend Warblers in Montana.

In an article entitled 'About Collecting Chests,' Stephens gives the results of some thirty years' field experience, and describes in detail how to make a chest for drying skins of mammals and birds, and one that will also carry tools and notebooks, and at the same time serve as a table.

McGregor contributes notes on 44 species of 'Birds Observed in the Krenitzin Islands, Alaska,' in the summer of 1901. These islands form part of the Aleutian chain, just east of Unalaska, where opportunities were afforded for observing the habits of Auks, Shearwaters, Petrels, and other seabirds. The longest and most important paper in this number is a carefully prepared 'List of Birds Collected between Monterey and San Simeon in the Coast Range of California,' by Herbert O. Jenkins. The observations which form the basis of the notes were made in June and July, 1905, during a six weeks' trip, in a little-known part of the state which marks the southern limit of the Humid Coast Belt. The list of species is prefaced by a short description of the topographic conditions and the characteristic trees and shrubs, and by lists of the northern and southern birds found in the region.

Among the brief notes are two of special interest. The great earthquake of last April was severe on the Farallones; huge masses of rock were thrown down in the great Murre cave at the east end of the island and

also at the west end, somewhat disturbing the rookeries at these points. Recent investigations in Guadalupe Island, off the coast of lower California, conducted by W. W. Brown, have failed to show the presence of the Caracara, Towhees, and Wren peculiar to the island, and the fear is expressed that "these species are gone forever."—T. S. P.

#### Massachusetts Audubon Society Calendar for 1907

Their Calendar for 1906 having been most favorably received, the Massachusetts Audubon Society has issued a second calendar which is even more attractive than the one which preceded it.

It consists of six plates of American birds and was printed in Japan from blocks made expressly for this purpose, and tastefully mounted on cards  $9\frac{3}{4} \times 14\frac{1}{4}$  inches, with descriptive text on the back.

The price of the calendar is \$1.50, and orders should be sent to the Society at the Boston Society of Natural History.

#### Bird Note Book, by Richard H. Gerberding, Chicago

Anything that will induce definite observation and record, in the field, is to be welcomed. The present notebook, by the use of a system of symbols, suggests the character of the data which seem most worthy of entry, and at the same time is designed to lessen the labor of the student. It may be cordially recommended.—F. M. C.

#### Book News

We regret to learn that 'Our Animal Friends,' the organ of the American Society for the Prevention of Cruelty to Animals, has suspended publication. This magazine contained much interesting natural history matter and was at all times a sane and moderate advocate of the cause for which it stood.

We have received for 'The Warbler Book' some excellent but unsigned notes on the nesting of Audubon's Warbler in Estes Park, Colo. Will their author kindly communicate with us?

# 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

Vol. VIII Published December 1, 1906 No. 6

## SUBSCRIPTION RATES

Price in the United States, Canada and Mexico  
twenty cents a number, one dollar a year, post-  
age paid.

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Bird-Lore's Motto:

*A Bird in the Bush is Worth Two in the Hand*

## BIRD-LORE for 1907

THREE years ago, when BIRD-LORE began the publication of a series of twenty-four colored plates of Warblers, it was by no means certain that the undertaking would be given the support needful to its success. The plan, however met with a prompt and practical endorsement which, now that all the North American Warblers have been figured, fully warrants our taking up some other group of birds.

It is proposed, therefore, to follow the Warblers with the Thrushes, and BIRD-LORE for February will consequently contain colored figures of the Hermit, Olive-backed and Gray-cheeked Thrushes, the Eastern and Chestnut-backed Blue-birds, while in April the Wood Thrush, Wilson's Thrush and Robin will appear.

The small number of species in the family Turdidæ in connection with their (as compared with the Warblers) limited variations in color with age, sex or season, assures the completion of this series of plates in the next (1907) volume of BIRD-LORE. Then we expect to figure the Flycatchers, even more difficult subjects, for the field student as well as the engraver, and, eventually, we hope that every species of North American bird will have been illustrated in color in BIRD-LORE.

We shall have some capital articles to accompany the plates of Thrushes, notably one by Dr. J. Dwight, Jr., on the various races of Thrushes, with maps showing the

distribution of each form; and it gives us unusual pleasure to say that Professor Cooke's unequalled migration tables, based chiefly on data in the Biological Survey, will be continued.

A long-cherished plan to increase BIRD-LORE's usefulness to teachers will also materialize in our coming volume. To the Audubon Executive Department will be added a School Department. Mr. Dutcher remains in charge of the former, while Mrs. Wright, to our great satisfaction, has consented to edit the latter. Mrs. Wright will be assisted by Miss Margaret Cook, of the Cornell Nature Study Bureau; and under this efficient and experienced management it is believed that a department will be developed which will be of interest to children as well as of value to teachers. This department will be inaugurated in the next issue of BIRD-LORE, the first number of the ninth volume, when its editors will state their plans.

## PRIZES FOR YOUNG OBSERVERS

We may announce here, however, that three prizes are offered to young observers of fourteen years and under, for the best accounts of 'A Bird Walk in December.' These essays should contain about 300 words and should be sent to the editor of BIRD-LORE not later than December 20.

THE more irregular winter birds promise to visit us in unusual numbers this season. Pine Siskins and Canadian Nuthatches have been generally common throughout the fall; and both White-winged and Red Cross-bills, Pine Grosbeaks and even Evening Grosbeaks have been reported to us. The occurrence in the Atlantic States of the last-named, however, is so exceptional that it should be recorded only on incontrovertible evidence. As an aid to this end, we have selected this beautiful bird as the subject of BIRD-LORE's Christmas Bird Plate, in which it appears life-size and in colors.

WE regret the necessity of stating that the photograph of a Loon published in our issue for October represents not a living, but a mounted bird. We should, however, add that the correspondent from whom we received the photograph believed it to be genuine.



# The Audubon Societies

*"You cannot with a scalpel find the poet's soul,  
Nor yet the wild bird's song."*

Edited by MRS. MABEL OSGOOD WRIGHT and WILLIAM DUTCHER

Communications relating to the work of the Audubon and other Bird Protective Societies should be addressed to the National Association of Audubon Societies, 141 Broadway, New York City.

## DIRECTORY OF STATE AUDUBON SOCIETIES

With names and addresses of their Secretaries

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### Annual Meeting of the National Association

The second annual meeting of the National Association of Audubon Societies (Incorporated) was held at the American Museum of Natural History, October 30, at 2 P. M. Members were present from Vermont, Massachusetts, Connecticut, New York, New Jersey, District of Columbia, North Carolina and Oregon.

The minutes of the first annual meeting,

also of the meetings of the Board of Directors held during the year, were approved. The report of the treasurer was read, which showed that the receipts in the general fund were \$8,773.67 for the year, while the expenditures were \$9,316.95, making a deficit of \$523.54 notwithstanding the utmost economy in administration. The report also showed that seventeen life members had been added, and that \$1,000 of their fees had been used in the purchase of another gold mort-

gage trust bond paying four per cent. The New York Audit Company certified to the absolute correctness of the treasurer's report, which was accepted and ordered printed.

The president gave a brief account of the work accomplished during 1906, and outlined the program for 1907, which bids fair to be very active in the several channels of effort. The report of the Association, together with reports from the State Audubon Societies, is published in this issue of BIRD-LORE, and a large edition will be printed separately for general distribution. Members can secure copies on application to the office, 141 Broadway, New York.

The following directors were elected to serve for a term of five years: Frank Bond, of Wyoming; T. Gilbert Pearson, of North Carolina; Mrs. Elizabeth B. Davenport, of Vermont; Dr. Joel A. Allen, of New York, and Dr. David Starr Jordan, of California.

The report of the sub-committee, appointed by the president, by resolution of the Board of Directors passed at a special meeting held September 7, 1906, to complete the negotiations relative to a settlement of the residuary interest of the Association under the will of the late Albert Willcox, was accepted, and their action in effecting a settlement for the sum of \$231,072 was ratified and confirmed.

The president presented a seal, which was accepted and made the seal of the Society.

At the close of the business session, Mr. W. L. Finley gave an illustrated talk on some life histories of several species of western birds, which was followed by observations, illustrated, on some of the common birds about New York, by Mr. F. M. Chapman.

At four P. M. a meeting of the directors 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. Theodore S. Palmer; secretary, T. Gilbert Pearson; treasurer, Frank M. Chapman. Mr. Samuel T. Carter, Jr., was reappointed counsel of the Society.

The president appointed the following

standing committees: Executive—Dr. Hermon C. Bumpus, Dr. Joel A. Allen, Dr. George Bird Grinnell. Finance—John E. Thayer, Abbott H. Thayer, Mrs. C. Grant LaFarge. The president and treasurer are members of both these committees.

Since the annual meeting the Society has received a second instalment of its interest in the residuary estate of the late Mr. Willcox, amounting to \$50,000, nearly all of which has been invested in a first mortgage, at 5 per cent interest, on a fine property on West One Hundred and Fifty-sixth street, New York. By a singular and happy coincidence this property is located close by the home, Audubon Park, and also the burial place, Trinity Cemetery, of John James Audubon.—W. D.

#### Notes and News

BRETON ISLAND RESERVATION.—The recent hurricane in the Gulf of Mexico destroyed every sign that the Association had erected on this reservation, as well as those on Audubon Reservation, the property of the Louisiana Audubon Society. This was not an unmixed evil, for the storm and the accompanying high tides swept into the gulf the raccoons which infested Breton Island, and which were a serious menace to the birds and their eggs. Nature has her own methods of preserving a balance of wild life, which man disturbs when he indulges in excessive killing.—W. D.

PENGUINS.—It has been reported that ships are leaving New Zealand ports to kill Penguins for their oil and feathers (down). These interesting birds are thus threatened with extermination, as such non-flying species are helpless when attacked by man.

PLUME SALES.\*—'At the August sale at the Commercial Salerooms (London, England) there was a decline in the supply of Osprey feathers, and a still greater decline in the demand, mainly on account of the absence of American trade. The quantity offered was 4,296 ounces, against 5,443 ounces at the June sale; prices were lower.

\*Reprinted from 'Bird Notes and News,' Vol. II No. 3, 1906. Organ of the Royal Society for the Protection of Birds, London, England.

"Birds - of - Paradise were also rather cheaper; 2,098 light plumes, and 1,850 various were offered. Vulture quill feathers sold well, and there was a large supply of Eagle, Hawk, Pelican and Albatross quills. Japanese Waxwings fetched 1d. per skin; East Indian Pheasants,  $\frac{3}{4}$ d.; Bee-eaters,  $\frac{5}{8}$ d.; Crested Pigeons, 1s. 6d.; Ibis wings, 5d."

It certainly is good news that the falling off in the sales of aigrettes was "on account of the absence of American trade." Perhaps some of the aigrettes sold were from Florida, because it is well known that these plumes are shipped from there to Nassau, and are no doubt reshipped to London. It is also well known that some of these plumes are sent to New York, but it is done so secretly that it is practically impossible to secure the evidence that will convict the shipper and consignee. Quite recently a merchant in one of the interior towns was detected shipping one dozen plumes, and the justice before whom he was taken fined him \$75 and costs, which was promptly paid.

It therefore seems that the campaign of protection and education that is being carried on by the Audubon Societies is having some effect. In this connection, it is pleasant to be able to record the fact that at the recent annual meetings of the Federation of Women's Clubs of Pennsylvania and New Jersey, resolutions were adopted "that, in the future, club women would not use 'aigrettes' and that they recommend to the other women of their respective states like action in regard to these plumes." Club women are a power in moulding good public opinion, and it is hoped that the Federations in other states will follow the excellent example set by the club women of New Jersey and Pennsylvania.

It is shameful to kill such splendid birds as Eagles, Hawks, Pelicans and the Albatross, simply for the purpose of securing a few quills, and words fail to express the measure of a person who will kill a bird as beautiful as a Waxwing for a penny.—W. D.

POLITICS VS. AUDUBON SOCIETY.—It is reported that the Gunners' League of Curri-

tuck, North Carolina, will make desperate efforts to abolish the State Audubon Society or have the county of Currituck released from the provisions of the game laws. This faction simply desires to be permitted to exercise its selfish ends regardless of the best interests of the state, without a thought for the result of their action on the future. Certainly there will be enough wise and unselfish men in the next General Assembly to uphold the credit of the state and not permit any retrograde step. The Audubon society of North Carolina is an honor to the state, and the influence for good it exerts beyond the borders of the commonwealth is very great.—W. D.

CAGE-BIRDS.—There are still a few Cardinals and Mocking-birds being clandestinely shipped from this country to Antwerp and London, notwithstanding the utmost vigilance to prevent the traffic. A member of the National Association recently reported having seen a number of Cardinals in a shop in London, but he was unable to ascertain from what American port they were shipped. It is thought, however, that they were from Philadelphia. Some foreign cage-birds were recently smuggled into the port of New York, and, although they were not of a prohibited species, the vessel owners were fined \$400 for not having reported them on the manifest.—W. D.

#### Notice

Members and others are requested to address all correspondence to the National Association of Audubon Societies, 141 Broadway, New York City.

Membership in the National Association: \$5 paid annually constitutes a person a sustaining member, \$100 paid at one time constitutes a life membership, \$1,000 paid constitutes a person a patron, \$5,000 paid constitutes a person a founder, \$25,000 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.

# THE KILLDEER

By WILLIAM DUTCHER

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## National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 23

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This Plover, which derives its name from its oft-repeated note of *kildee, kildee, dee, dee, dee*, should be a familiar bird to all people who wisely seek their health and pleasure out-of-doors with wide-open eyes. It is found over the whole of temperate North America, and it breeds throughout its entire range. In the winter months it is found from the parallel of the Gulf States to northern South America and in the West Indies, although the writer has found them on Long Island, New York, in every month of the year but January.

It is impossible to overlook the Killdeer by reason of its beauty of coloring, its trim appearance, its stately walk when undisturbed, its rapid and graceful flight when startled. Every bird has its characteristic motion while in the air, and the student who is a close observer soon learns to know many birds from their appearance while in flight when their color is indistinguishable and their notes but faintly heard.

The writer has many bird pictures impressed upon his mind that never can be effaced while time lasts for him, and standing out among them in refreshing relief is a memory of a smooth-flowing river gently winding its way from the hills through grassy meadows toward the sea, in which it would soon be lost. It was in early autumn, when Nature exhibits her choicest colors and the birds are flocking for their leisurely journey to the distant southland, that a company of Killdeers were running about in one of the brown fields for a fare of succulent grasshoppers or crickets, all the while chatting with each other in colloquial tones.

A human intruder appeared, and the startled birds arose from the ground in flight but were reluctant to leave such rich foraging grounds. They massed in solid ranks and whirled through the air, now high in graceful evolutions, then downward with lightning rapidity, sweeping across the field; breaking ranks and flying like leaves before a gale, only to mass again for some new and intricate movement, which, if possible, was more perfect than the first.

Let us change the picture to the vernal season, and observe the Killdeer after it has returned to its breeding home, a field which man may use for growing his sugar, cotton, rice and corn or any of the other products so necessary for his happiness, and even for his very existence. Then we see the birds happily mated and employed in selecting a suitable depression in



KILLDEER

Order—LIMICOLÆ  
Genus—ÆGIALITIS

Family—CHARADRIIDÆ  
Species—VOCIFERA



the ground in which to place their four pyriform eggs of a delicate creamy white tint thickly spotted or lined with chocolate-brown. Like the eggs of all Plovers, their size is out of all proportion to the size of the bird.

The Killdeer does not waste any time in building a nest, and only in rare instances does it take the trouble to line the cavity in which it deposits its eggs. Alexander Wilson, however, records an interesting nest which he found "paved with fragments of clam and oyster shells, and very neatly surrounded with a mound or border of the same, placed in a very close and curious manner."

The young Killdeers have little use for a nest, after they are born, for the large size of the eggs (1.50 X 1.10 inches) permits the development of large, strong legs and feet, so the young are really never nestlings in the ordinary sense of the word, for they are prepared from birth to follow their parents abroad, not by flight but by running. They differ in this respect from the altricial birds, which do not leave their home until their wings are strong enough to support them in flight. The solicitude of the parents for their young is very marked. Wilson says: "Nothing can exceed the alarm and anxiety of these birds during the breeding season. Their cries as they winnow the air overhead, dive and course about you, or run along the ground counterfeiting lameness, are shrill and incessant. The moment they see a person approach, they fly or run to attack him with their harassing clamour, continuing it over so wide an extent of ground that they puzzle the pursuer as to the particular spot where the nest or young are concealed."

Audubon's description of the Killdeer's habits at this time are so quaint that they are quoted also: "At this-period, or during incubation, the parents, who sit alternately on the eggs, never leaving them to the heat of the sun, are extremely clamorous at sight of an enemy. The female droops her wings, emits her plaintive notes, and endeavors by every means she can devise to draw you from the nest or young. The male dashes over you in the air, in the manner of the European Lapwing, and vociferates all the remonstrances of an angry parent whose family is endangered. If you cannot find pity for the poor birds at such a time, you may take up their eggs and see their distress; but if you be at all so tender-hearted as I would wish you to be, it will be quite unnecessary for me to recommend mercy." This is good advice, that I hope will be followed by every boy and girl who reads this leaflet,—in fact by every person.

If you should discover a nest of the Killdeer, carefully note the exact spot where it is located. If it contains only three eggs, it will indicate that the clutch is not yet complete and a very brief visit, after an interval of a day or two, should be made. If four eggs are then found, it will show that incubation has commenced. Visits at infrequent intervals should then be made to ascertain the time that elapses before the young birds are hatched.

By simply walking past the eggs, without stopping, the desired information can be secured. After the young birds are hatched it will be extremely difficult to find them, by reason of their habit of squatting and remaining perfectly still, and also because they simulate their surroundings so perfectly. The student, by such field studies, can secure a great many interesting and valuable notes, and, if care is taken, without in the least harming either the old or young birds.

The extreme watchfulness of the Killdeer at other seasons is portrayed by Audubon in one of his delightful descriptions of his own wanderings: "Reader, suppose yourself wandering over some extensive prairie, far beyond the western shores of the Mississippi. While your wearied limbs and drooping spirits remind you of the necessity of repose and food, you see the moon's silver rays glittering on the dews that have already clothed the tall



NEST AND EGGS OF KILLDEER

grass around you. Your footsteps, be they ever so light, strike the ear of the watchful Killdeer, who, with a velocity scarcely surpassed by that of any other bird, comes up, and is now passing and repassing swiftly around you. His clear notes indicate his alarm, and seem

to demand why you are there. To see him now is impossible, for a cloud has shrouded the moon; but on your left and right, before and behind, his continued vociferations intimate how glad he would be to see you depart from his beloved hunting-grounds. Nay, be not surprised if he should follow you until his eyes, meeting the glaring light of a woodsman traveler, he will wheel off and bid you adieu."

Having become acquainted with the Killdeer and its homelife, let us for a moment consider the relations of this bird to mankind. Unfortunately, it belongs to the class known as game-birds, but it is only so in name, for, owing to the small size of its body, it is worthless for food purposes. The appearance of the bird while in flight is very deceptive, its long wings making it appear much larger than it really is. Its home is on the ground, and all of its food is obtained there and consists very largely of insects that are extremely destructive, such as grasshoppers, crickets and coleoptera, including the boll-weevil, which is now doing such great damage in the



cotton-growing districts. It is also especially effective in holding in check the Rocky Mountain locust, having received special mention in the government report on that destructive insect.

In Bulletin No. 25, United States Department of Agriculture, the government expert, Arthur H. Howell, says: "The Killdeer frequents plowed fields, often in large numbers, and the destruction of weevils at the period of spring plowing is a highly important service."

We find that the Killdeer is of great value æsthetically by reason of its beauty and interesting personality; it is of extreme value economically because it destroys enormous numbers of insects, two kinds of which are costing the agriculturists of the country millions of dollars annually; it is practically worthless for food owing to its small size, and no self-respecting sportsman ever shoots one. Let me quote from a quaint old volume published in 1848 by that prince of sportsmen, Frank Forester, who, at the end of his chapter on the Plovers, adds these few words: "In addition to these we have the well-known, common and beautiful variety, the Killdeer Plover, so named from its peculiar cry, which it is both cruel and useless to kill, as it is too insignificant to be regarded as game." Let the public give the Killdeer the appreciation and protection it richly deserves.

#### Questions for Teachers and Students

How are feet of Plover different from those of other birds? Is the Killdeer found in your ocality? At what season of the year? What is meaning of pyriform? What is a clutch? What is the meaning of incubation? What is the meaning of simulate? What are coleoptera? Describe the boll-weevil and its transformation. In what way is it destructive to cotton? Describe the Rocky Mountain locust and the damage it does. Use available questions in previous leaflets. Read excellent papers on the Killdeer in BIRD-LORE, Vol. I, page 35 and Vol. II, page 148; also "How to Study Birds," Vol. V, page 89.



A PROTECTED BIRD COLONY

From the group in the American Museum of Natural History, representing the summer bird-life of Cobb's Island, Virginia. The Least Terns, here shown, were once abundant on the island but were exterminated by millinery collectors.

# Annual Report of the National Association of Audubon Societies for 1906

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## REPORT OF THE PRESIDENT

By WILLIAM DUTCHER

### INTRODUCTORY

MEMBERS OF THE ASSOCIATION: Before presenting to you the results of the past year's work and the plans for future development, let us look backward for a few years. Abbott Thayer's "An Appeal to Bird-Lovers" was widely published in February, 1900. Of this appeal it may be truly said "Behold, how great a matter a little fire kindleth." From this time to the present moment the history of this Association has been one of steady progress and, during the past year, by the magnificent beneficence of one of our members, the late Albert Willcox, the Association has been changed from a weak and struggling Society to a permanent and strong organization with a substantial endowment fund. In the few short months of our corporate existence we have therefore secured a foundation so broad and strong that it surpasses the ardent hopes of our most optimistic members. Let us trust that this fact will not lead our members to believe that their support is no longer required; it is needed as much as, if not more than before.

In the past, the work of the Society has been very greatly restricted by lack of funds, and much good that might have been accomplished was, for this reason, necessarily neglected. In the near future, after our legacy has been received and is safely invested in conservative securities, the income of the Association will be so materially increased that the work of the Society can be amplified in many directions. In this connection, your president wishes to express his gratification and thanks to the members of and contributors to the Association; their loyalty and generosity has been persis-

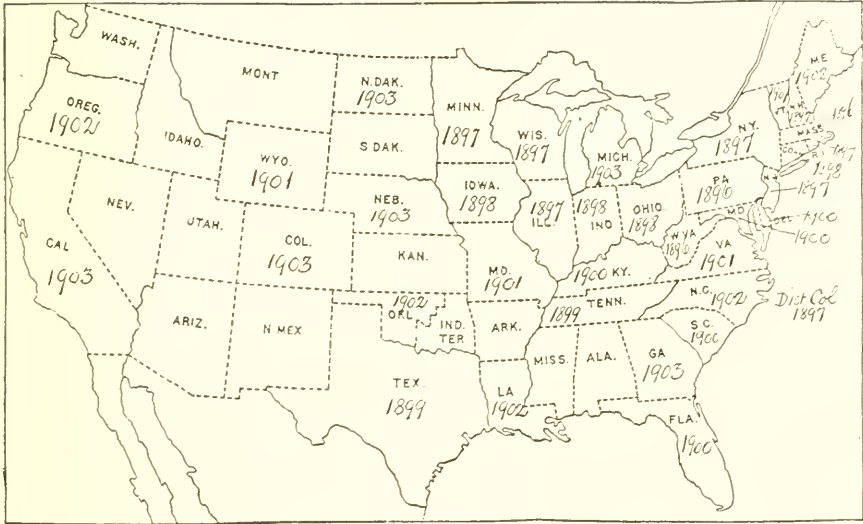
tent, while the letters of sympathy sent to the officers are a source of great encouragement. Many of the members have taken special interest in securing additional members, while others have made liberal contributions in addition to the annual fee of \$5.

The interest and earnestness of our members is an added guarantee of the future of the National Association. Our membership is now just over the thousand mark; this gives an income of \$5,000 from fees, and, as many of our members give special contributions in addition, our income from these sources the past year has been \$8,773.67. With the greatest economy in expenditures, our finances showed a deficit at the end of the year of \$523.54. During the coming year our income will be increased by the amount earned by our legacy.

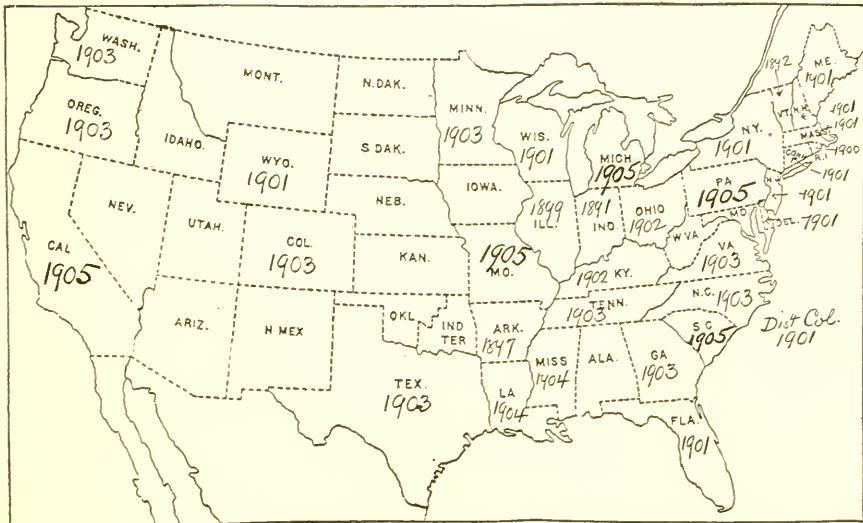
At this time it is fitting to speak of two matters of moment; first, the very great importance of an increase in membership. The value of a large number of members is two-fold, for, in addition to the income so produced, the moral influence exerted is very great; the individual has a personal influence in his neighborhood; the group of members has a still larger power for good in a state or nation, especially in creating public sentiment in favor of good legislation and the enforcement of laws. The membership of the National Association in no way conflicts with that of the separate but cognate membership of the State Societies. The second matter is in relation to the permanent endowment, which now practically amounts to \$335,000. This is a superb beginning for a Society that was incorporated less than two years ago, but the endowment must not remain at this figure, for there is too much work still to be done. We have at the present time thirty-seven life members, whose fees are a part of the endowment. All of these members have the satisfaction of knowing that, when their life activities have ceased, their contribution of \$100 will go on forever earning money with which to carry on the work of wild bird and animal protection in which they were interested. There are probably few individuals who are situated as was our great benefactor, first, with a compelling desire to protect helpless wild life; second, with the wealth to carry out such a desire, and, finally, with no family or dependents who could justly claim his protection. However, there are many of our members who are in a position to add to our endowment, either now by becoming a Life Member, a Patron, a Founder or a Benefactor, or by a legacy. This thought is commended to your consideration in order that your present interest and support to this great and important movement may be perpetuated.

In presenting the above suggestions regarding additional members and further legacies, I am simply carrying out one of the directions of our benefactor, Mr. Willcox, from whose will the following quotation is made:

"The other one-half of my residuary estate, after the death of my brother, David Willcox, I gave, devise and bequeath to the National Association of Audubon Societies for



MAP OF STATES HAVING AN AUDUBON SOCIETY, WITH THE YEAR IN WHICH IT WAS ESTABLISHED



MAP OF STATES WHICH HAVE PASSED THE A. O. U. MODEL LAW, WITH THE YEAR OF ITS ADOPTION

(To the states here given Iowa should be added)

the Protection of Wild Birds and Animals, an Association organized pursuant to and in conformity with an act of the Legislature of the State of New York, passed May 8, 1895, and entitled 'An Act Relating to Membership Corporations,' on condition that the said one-half of my residuary estate shall be held by the said Association in trust, however, for the purposes of its incorporation, provided, however, that one-half of the income derived therefrom shall be applied to the protection of bird and animal life as provided in the Certificate of Incorporation of said Association, and that the other half of said income, so far as needed, may be applied to the employment of solicitors who shall seek permanent endowments for the general benefit and purposes of the aforesaid Association. . . . In case the said National Association of Audubon Societies for the Protection of Wild Birds and Animals cannot or shall not accept the trust on the aforesaid terms and conditions, then I direct and empower my Executors and Trustees to select and designate such other Society, Association or Corporation as in the judgment of my Executors and Trustees is best qualified to protect wild animals and bird-life in North America and elsewhere; and I hereby give, devise and bequeath to such Society, Association or Institution so selected, this one-half of my residuary estate on the foregoing terms and conditions.'

The wishes of Mr. Willcox were so plainly expressed in his last will and testament, that this Association should not cease striving to increase its permanent endowment, that I think we, as members, are morally bound to do all we personally and collectively can to carry out the desire he so plainly expressed.

The work of the National Association is that of grown men and women. It is not a fad nor an ephemeral movement, but it is an undertaking seeking truth in a spirit of fairness and justice. It proposes to protect and preserve the wild life of this continent and, so far as it can, of the world, until such time as careful and exact scientific study can determine the value to the human race of all wild creatures, and to this end it is the purpose of this Society to prevent, by all lawful means, the selfish and wasteful practices that have so long been in vogue. The blind rage and reckless abuse of our critics will have no further effect on us than to make us more firm in our purpose.

### THE YEAR'S WORK

The most important result accomplished is the increasing interest of the public and its growing sympathy with the objects of the Association. This is due to the aid given by the press and to the great amount of bird literature distributed by the State and National Audubon Societies. As much of this material is educational in character and goes to country schools, it has a two-fold effect; first, on the pupil, and, through him, to the home, where the parents learn of the value of the birds.

Not the least of the good results accomplished is the payment of a debt owed by the Society to the widow and orphans of our murdered warden, Guy Morrell Bradley. The generosity of our members has enabled the Society, through a special fund of \$1873.40, to purchase, in the city of Key West, a very comfortable house and a lot 40 x 90 feet. This was put in

complete order and is now occupied by these wards of the Association. The total cost of this property was \$1499.08, leaving a balance of \$374.32, which is now at interest for the benefit of the family. This balance should be increased by further subscriptions to an amount sufficiently large to produce, at 5 per cent interest, an annual income that will feed and clothe the two orphan children, thus relieving the mother of this responsibility. There is



HOUSE AT KEY WEST, FLORIDA, PURCHASED BY NATIONAL ASSOCIATION WITH CONTRIBUTIONS TO THE BRADLEY FUND, FOR THE WIDOW AND CHILDREN OF WARDEN BRADLEY

still another duty to perform in this connection. Guy Bradley's grave is at East Cape Sable, on a high ridge of snow-white sea-shells, shaded by cocoanut palms and overlooking the sea. It is a beautiful and most appropriate locality, but the lonely grave is unenclosed and unmarked. It should be considered a privilege as well as a duty by this Association to erect a suitable stone over the remains of one who so faithfully performed his duty, even to the extent of giving up his life.

## LEGISLATION

A whole report could be written on this subject alone, for the question of laws is almost always before the Association. It is true that every alternate year the question is not quite so absorbing as it was the previous year; for instance, in 1906 legislative sessions were held in only fourteen states and the District of Columbia, while, during the coming year (1907) sessions

will be held in forty-two states and the District. To give the proper attention to such a mass of legislative matter requires herculean effort. A bureau devoted to this branch of bird protection alone could be kept busy the entire time, especially if it also gave some attention to the enforcement of the laws. A brief résumé of the successes and disappointments of 1906 is as follows:

The state of Iowa adopted the Model Law in its most advanced form. (For details, see BIRD-LORE, VIII, p. 144.) This law is now in force in thirty-five states and in some portions of British North America.

*Massachusetts.*—In Massachusetts an act was passed protecting the Heath Hen until November, 1911, and a movement is now on foot to give additional and effective protection to these interesting birds, the sole remaining individuals of a race that once were found in a large section of the Middle Atlantic States. The matter is now in a formative condition, but is in charge of Dr. Field of the Massachusetts Game Commission.

A law was passed prohibiting the sale at any time of Prairie Chickens or Sharp-tailed Grouse. While these birds are not found in Massachusetts, yet the statute is in line with the most advanced game legislation, i. e., the prohibition of all sale, and will be of great value to the states where these birds are found, as it closes an important market.

A closed season until November, 1911, was made on the Wood Duck; this will give that fast-disappearing, and by far the most beautiful of all the water-fowl, a chance to increase, while the action of the Massachusetts legislators will serve as an example for other legislative bodies when they are asked to take the same action. A law was also passed prohibiting the sale of Quail taken in the state and restricting the sale of those taken in other states to November and December. In addition, Ducks brought into Massachusetts from other localities cannot be sold in the closed season.

There can be no doubt that this admirable record is due, to no small extent, to the educational work of the Massachusetts Audubon Society, in connection with the efforts of the large number of prominent ornithologists who are citizens of this Commonwealth.

*Louisiana.*—The Model Law was reenacted with some important improvements which were dictated by experience. We are compelled, however, to record a set-back, as both the Robin and Cedar Waxwing were removed from the non-game-bird class and were made game-birds with an open season. These birds had been so long considered game that the present generation of adult citizens were not willing to relinquish their privilege of shooting them. The coming generation will have to be educated in order to have them look at these birds from a different viewpoint.

*Mississippi.*—While there is no Audubon Society in this state, yet the influence of the work done in nearby states, especially in Louisiana, is telling, for in 1906 the sale and export of all protected game was prohibited and a non-resident license law was adopted.



*New Jersey.*—No new legislation was undertaken, but the bills to remove protection from the Mourning Dove, the Flicker, the Meadowlark and the Robin were successfully combatted. The fact that such bills are introduced annually in a state where so much Audubon work has been done shows emphatically that the millennium for birds has not yet arrived and that an association such as this is still necessary to carry on the propaganda of wild bird and animal protection.

*New York.*—The story in this state is almost exactly the same as in New Jersey, although it is Ducks and not non-game birds that are the subject of contention. The usual annual attempt was made to repeal the anti-spring-shooting duck law, now commonly known as the "Brown Law," after its original introducer, Senator Elon R. Brown. The repeal bill has now been defeated in three sessions of the legislature.

The New York Audubon Society, has, in the past, merely taken the defensive in this important matter, but the time has now come when they should take an aggressive position and carry the war into the camp of the enemy. The law relative to Ducks, Geese, Brant and Swan should be made uniform throughout the state; at present the open season commences September 16, except on Long Island, where it commences October 1. There is no reason why the date of September 16 should not be adopted for the entire state, as the young birds of the year are fully grown by that date and, moreover, it will legalize the killing of those Ducks that are now shot by sportsmen and others who are legally shooting Bay Snipe September 16. Further, the section of the law permitting the killing of Brant on Long Island until May 1 should be repealed at once. It is a well-known fact that large numbers of Ducks are now killed on Long Island by persons, especially market gunners, when they are after Brant, which they can legally kill and possess until May 1. So long as this special law is in force, it will be practically impossible effectually to enforce the law on the other wild fowl. Again, it is simply ridiculous to permit the possession of wild fowl for two months, i. e., January and February, after the open season closes. As a matter of fact, a person can now kill as many Ducks and Geese as he wishes during the months of January and February, provided he is careful that no one sees him in the act of killing the birds. The mere fact that he has them in his possession afterward is not illegal, although he may have in his possession at the same time all the paraphernalia of hunting, i. e., a gun and decoys.

Your president, during the past season, made extensive investigation on Long Island regarding the enforcement of the spring wild-fowl law, and his conclusion is that it is, in the main, practically a dead letter, and that conditions will not be changed or improved until the present law is amended by striking out the exception allowing the legal killing of Brant until May 1, and the possession of other wild fowl until March 1. The killing of *all* wild

fowl in the state of New York should cease on January 1, and their possession should not be permitted a single day thereafter. Until these vital amendments are made the present law is not only farcical, but it is practically unenforcible.

The history of the fight to prevent the sale of foreign game during the closed season in this state has been too exhaustively recorded in BIRD-LORE (VIII, p. 143) to need repeating here. Whether the attempt of the game dealers to secure this privilege will be repeated, the future only can tell; however, the Audubon forces will again be marshaled against the dealers should they renew the fight. Mention is here made of the important and unanimous decision of the Court of Appeals upholding the constitutionality of Section 141 of the New York Game Law.

*Georgia.—South Carolina.*—In both of these states, attempts were made to have laws passed similar to the one in North Carolina making the Audubon Society the Game Commission of the state. The experiment in North Carolina has been so very successful and has accomplished such a wonderful work in that commonwealth that it was thought that the legislatures of Georgia and South Carolina might be willing to adopt the same plan. Unfortunately, the system advocated was too radical a change from the old methods for the first attempt to establish it to be successful, and the effort will have to be again made at the coming session of the legislatures. However, the educational work done was not lost, and the movement next time will start from a better vantage point. Politicians are loth to see any state offices slip from their control into the hands of a strictly non-political and economic body.

*Virginia.*—In this state it is to be regretted that the Audubon work received a decided set-back. The bill to establish a State Game Commission, to be provided with funds for the employment of wardens to enforce the game and bird laws, was defeated, although it was ably advocated by three of your officers. In order to avoid taxation of the people to supply funds for the Commission to work with, it was proposed to have a small gun license; and this was the rock on which our hopes of success were wrecked. The chairman of the Senate Game Commission said that if he should report such a bill favorably, his constituents would never elect him to the Senate again. This fact appealed to him more strongly than did the best interests of the state and, in consequence, the bill was adversely reported.

Further, the game laws were amended by removing all protection from Robin Snipe, Surf-birds, certain Plover and Curlew and making a longer open season on Robins. It is patent that a considerable portion of the income derived from our new endowment can be advantageously used in educational work in Virginia. It certainly is sadly needed there.

*Federal Laws.*—Four new federal bird or game laws were passed by Congress, two of which were largely at the instance of the Audubon Socie-

ties, viz.: "Prohibiting hunting, trapping or other trespass on bird refuges" (Pub. No. 314), and "Prohibiting hunting in the District of Columbia except on the marshes of the Eastern Branch and the West side of the Potomac River" (Pub. No. 401). The former was a much-needed statute to enable the wardens of this Association to prevent trespass on the bird reservations set aside by President Roosevelt at the request of this Society, and the latter practically makes another reservation of the District of Columbia.

*Work for 1907.*—The legislative work of 1906 is done, and we must turn our faces to the future and try to formulate some plans for the season of 1907 now so near at hand. There will be sessions of the legislature in forty-two states and also a short session of Congress. This means that a trusted representative must be secured in each of the forty-three capitals who will watch legislation and furnish us promptly with all bills, and amendments to the same, introduced in both branches of the several legislatures. Good legislation, no matter by whom introduced, must be aided by every means in our power, while bad legislation must be fought with all the means at our command.

If the members will give this matter a few moments' thought, they will at once realize the magnitude of the work that has to be done, and that it can best be done by the National Association because of its equipment. When action on good or bad bills is necessary in a state, the Audubon Society is at once communicated with, for its local influence is greater and more effective than that of an outside Association.

In a few states the Model Law must still be passed. Of these the most important are: Maryland, West Virginia, Alabama, Oklahoma, Kansas, Nebraska and the two Dakotas. In some of these states, persons who are interested in bird protection work have already been found, but the passage of this important statute in eight additional states means a great amount of hard labor.

*Control of Alien Hunters.*—The effective control of this class of foreign-born residents is a matter of the greatest importance at the present moment. Certain races of uneducated emigrants are a positive menace to the non-game birds of this country. The game-birds do not suffer in the same degree, for this class of hunters do not possess the skill to shoot many of the fast-flying birds like Quail, Grouse or Snipe, but content themselves with such spoils as Robins, Flickers, Bluebirds, Sparrows, and such of our smaller birds as they can pot in a tree or on the ground. Many of these people are so ignorant that they cannot read warning notices unless they are printed in their own language. Thousands of them are employed in all parts of the country on all the great public and private improvements. These laborers usually live in camps, and every wild bird that they can gather in represents just so much saved in their outlay for food. Many of them have cheap guns,

and their hours of leisure are employed in roaming about the country near their camps shooting every bird that they see. One can hardly read a daily paper and not find in it an account of the arrest and conviction of some of these alien marauders. The officers who make these arrests are often in great danger.

Not long since, in Pennsylvania, two deputy game officers were brutally killed by aliens whom they were attempting to arrest for violation of the game laws, and in Wisconsin during the past summer a like tragedy took place. Recently a series of complaints came from Rockland county, New York, of a gang of Italians who were working in the stone-crushers there and who made Sunday a day of unrest for the citizens in that locality. This Association was asked to detail officers to arrest the offenders. It was suggested that two had better be sent, as the men were desperate characters and one officer might be in danger if he went alone. The suggestion happily was followed, for, while attempting to arrest an Italian who was seen to shoot a Towhee and a Waxwing, the man deliberately shot at one of the officers, but fortunately did not hit him; and before he could shoot the second time he was overpowered. A handcuff was placed on one of his wrists, and while he was being led away to the jail he managed, with his free hand, to extract from his pocket a long-bladed knife, which he tried to use on the officer who had him in charge.

In several states special laws have been enacted in order to control alien hunters. In Massachusetts they cannot hunt unless they carry a license, which costs them fifteen dollars per year and gives them the privilege of shooting game only in the open season. In New York the law specifically provides that aliens cannot procure a license and, in consequence, they cannot carry firearms or shoot game at any time.

Either, or both of the laws mentioned, if rigidly enforced, would do much to curtail the harm done by the alien hunter, but neither of them is drastic enough. It would be far more effective to have a law making every alien who desires to hunt procure a license giving him such privilege, for which he must pay \$25. The license should not be in force longer than December 31 of the year issued, and it must be on the person of the hunter whenever he carries a gun in public. Should he violate the game law by shooting in the closed season, or by killing any bird or animal for which there is no open season, his license should be forfeited, his gun should be confiscated, and he should also be liable for the penalties provided in the game law for a violation by a citizen. Should an alien resist arrest or attempt to murder a game warden, imprisonment should be added to the other penalties. A



Knife drawn  
on a National  
Association  
warden

further provision of this proposed law should be that all fines, and the money derived from the sale of confiscated guns, should be paid to the Game Commission, one-half of the sum received being used in preparing and distributing warning notices printed in foreign languages and the balance being added to the fund used for the protection and propagation of game and birds. If such a law can be passed in the portions of the country that are overrun by the alien hunter, this menace to our small birds and game will be removed.

*Small Shore Birds, Known as "Peeps."*—In one of the sections of the Model Law, birds are divided into two classes, known as game-birds and non-game birds, and among the former are the "Limicolæ, commonly known as Shore Birds, Plovers, Surf Birds, Snipe, Woodcock, Sandpipers, Tatlers and Curlews." Most of these are true game-birds, desirable for food if shot legitimately during a short open season after the breeding period is past. All of these birds are rapidly disappearing, and some of them are getting dangerously near the line that demands special legislation to prevent their extinction. There are included in the Limicolæ several species that are game-birds in name only, their bodies being so small that they possess no value whatever for food purposes. These are the three species of Phalarope, the Least, Semi-palmated, Western and Spotted Sandpipers, the Killdeer, Piping, Snowy, and Mountain Plovers. All of these birds are long-winged and thus look, especially when flying, much larger than they really are. Their bodies without feathers are very small indeed, the largest of them weighing only a few ounces.

As food they are valueless, but as added attractions on the beaches, marshes and prairies they possess a great esthetic value; moreover, they are largely insect-feeders and thus have a distinctly economic value. There is absolutely no reason why they should not be removed from the game-bird class and be included among the birds for which there is no open season. Thousands and thousands of these beautiful and graceful creatures have been slaughtered solely for their plumage, their diminutive bodies not being considered of enough value to send to market. It is the duty of this Association to secure, as rapidly as possible, laws that will protect these minute specimens of bird life from the raids of plume-hunters and others who do not recognize esthetic or economic values, but only those values that will bring them a few cents or dollars.

*The Bartramian Sandpiper.*—This bird, which is more commonly known as the "Grass Plover" or "Upland Plover," formerly was found in great numbers in the dry upland grass fields over a large part of the country, but its numbers have been so greatly depleted that now it is comparatively rare and its exquisitely melodious whistle is not often heard. Its disappearance is a distinct loss to the agricultural interests of the country, as it consumed great numbers of grasshoppers and other insects. In order that the Bartra-

mian Sandpiper may have an opportunity to replete its wasted ranks, a close season of ten years is recommended.

*The Eskimo Curlew.*—Ornithologists of national reputation are of the opinion that this Curlew is on the verge of extinction. It is therefore the duty of this Association to secure for the species a close season of not less than ten years, in order to prevent it from being added to the list of birds that are known only by specimens in museums. Too many species of game-birds are approaching this dangerous point, and, if we do not do all we can to prevent it, we are not carrying out the objects of the Association.

*The Wood Duck.*—This is by far the most beautiful of the North American Ducks, and is also one of the most interesting in its habits. Its splendid plumage is probably one of the causes of its rapid decrease, as it is in great demand for mounting for ornamental purposes. The gorgeously colored male birds are never allowed to escape the man with the gun, whether it is the open or closed season. In consequence of this continual persecution, the Wood Duck is becoming exceedingly scarce and, unless a long closed season is prescribed, it, too, will join the ranks of the extinct species of birds, and this great attraction to the fresh-water streams and ponds will be missing.

Recently a circular letter was sent to 46 game commissions in the United States and the British North American provinces, enquiring whether they approved of legislation removing the small shore-birds from the game-bird class to the class for which there is no open season, and also to make a ten years closed season for the Bartramian Sandpiper, Eskimo Curlew and the Wood Duck. Replies were received from thirty-five of the Commissions, nearly all of which were in the affirmative.

*Spring Shooting.*—A very large proportion of the Commissioners above mentioned were also in favor of abolishing spring shooting of all kinds, together with the prohibition of sale of game. Some of the replies were so emphatic and reasonable that a few of them are quoted here to show the trend of official opinion regarding the importance of placing every legal barrier in the way of game and bird destruction before it is too late to take such action.

Mr. John A. Wheeler, Game Commissioner of Illinois, writes: "I am in favor of abolishing spring shooting of all kinds, without exceptions, if a uniform law can be passed by every state in the Union; otherwise I am not in favor of such a law."

This opinion from a game officer of one of the largest states shows how very important it is that there shall be some Association that will work persistently and continuously for a uniform law in all parts of North America to prohibit spring shooting of every description. An opinion regarding game protection from Minnesota is valuable for the reason that this state is in the van in such matters; therefore the following statement of Mr. Fullerton, Executive Agent of the Board of Game and Fish Commissioners, is of interest.

“We were one of the original states in the Union to abolish spring shooting, if not the first, and we would not go back to the old conditions for anything. Spring shooting, in my estimation, is one of the most vicious forms of slaughter. The man who kills birds in the spring gets nothing but a lot of feathers and the meat is feverish and not fit to eat; then, he is killing the parent birds when they are about to mate and in that way destroying what we ought to have in the fall. But I am afraid we shall never get spring shooting abolished in all the states until we get federal control of our migratory birds; and I believe that the Audubon Society can do no greater service than to back up the efforts that have been put forth in Washington along the line of federal control. We see the benefits in Minnesota of abolishing spring shooting. Every year our aquatic fowl are increasing, and this year we have had the local Ducks breed in every slough where water was found. The hunters that have gone out bear testimony to the statement I have made, that not in years has shooting been so good in Minnesota, largely because we have abolished spring shooting and the Ducks were not molested. If the other states bordering on Minnesota would follow our example, the results would be still better.”

This is one of the best arguments for the universal prohibition of all spring shooting that has ever been presented, because it is based entirely on the results obtained in a state that has had this advanced game legislation in force for a number of years.

Mr. Fullerton, in our opinion, strikes the keynote of the best method of immediate uniform protection for all migratory birds, when he advises this Association to advocate federal control. It will certainly take years of the hardest kind of labor to secure the passage of an anti-spring-shooting statute in each commonwealth in the United States. Society has not yet become so ethical that its members will relinquish a personal privilege for the advantage of the whole body; unfortunately, it is still necessary to compel such action by laws, and therefore the shortest road to the goal of perfect protection to all migratory birds is a national anti-spring-shooting law. Mr. Fullerton pays such a glowing tribute to Audubon work that, without thought of being egotistical, it is given here for the satisfaction of our members and sympathizers and also to excite the attention of the indifferent and to disarm our critics:

“I wish to bear testimony to the splendid work the Audubon Societies are doing, especially along educational lines; *after all, that is what we want*, —the people to be educated; when they are, there will be no question about the result. Minnesota is under a lasting obligation for the literature furnished and for the example the Societies set, and I believe that the change of sentiment which we have today in our State is due largely to education along the lines pursued by the Audubon Societies.”

The reports from New York State, which abolished spring shooting, with

the exception of Brant, is largely to the same effect. The number of locally raised Ducks is growing larger every season.

Mr. Elon H. Eaton, of Rochester, New York, sends a report which speaks of the immense number of Ducks this past spring at Conesus Lake, the unusual numbers being ascribed by sportsmen to the prohibition of spring shooting, and they predict a still greater increase under this beneficent legislation. The hereditary instinct for the home is very strong in all wild birds, and there is no reason, except that of spring shooting, why large numbers of wild fowl should not re-occupy, for breeding purposes, their ancestral homes.

Mr. Nathaniel Wentworth, of the New Hampshire Fish and Game Commission, says: "If the Wood Duck and Upland Plover are not protected soon, it will be but a short time when there will be none to protect; there is not one in New Hampshire today where there were twenty, thirty years ago."

This is a condition that needs the active attention of the Audubon Society before it is too late to prevent the result predicted.

Mr. Eugene Watrous, State Game and Fish Warden, of Oklahoma, is of the opinion that "the abolition of spring shooting will furnish a remedy for the preservation of all species of migrating water-birds; this I am in favor of now and for all time to come."

He also makes the following excellent suggestion: "I am in favor of a bag limit in the killing of game to a number which it would be reasonable to suppose could be used by the person so killing for domestic purposes only, and I favor imprisonment as a penalty for the killing, buying, selling or in any way handling game for commercial purposes."

Of the thirty-five commissioners who answered our inquiry of "Are you in favor of abolishing spring shooting of all kinds, without any exceptions?" twenty-nine of them replied "Yes," without any qualification, although some of them added such words as "decidedly so" or "most emphatically." Of these replies, six came from the British provinces and one from Mexico. Five of the commissioners gave a modified approval, while only two replied absolutely in the negative, and one reason was because "Ducks cross our country, both fall and spring, and are shot on both sides of us, and, notwithstanding we have spring shooting up as late as April 15, there were more Ducks in our state during the fall of 1905 and the spring of 1906 than has been known here for a number of years." It is suggested that this state is receiving the benefit of the prohibition of spring shooting in other states and that it is ethically bound to help the movement by like action.

It is proposed in a short time to issue a pamphlet embodying the several important questions submitted to the Game Commissioners, with their replies in detail, together with argument in favor of the stand taken by this



THE WHITE HOUSE  
WASHINGTON

Oyster Bay, N.Y.,  
July 16, 1906.

My dear Mr. Dutcher:

Permit me on behalf of both Mrs. Roosevelt and myself to say how heartily we sympathize, not only with the work of the Audubon Societies generally, but particularly in their efforts to stop the sale and use of the so-called "aigrettes" - the plumes of the white herons. If anything, Mrs. Roosevelt feels even more strongly than I do in the matter.

Sincerely yours,

*Theodore Roosevelt*

Mr. William Dutcher, President,  
National Association of Audubon Societies,  
141 Broadway,  
New York.

Association in all of these matters. This is considered necessary in view of the following warning quoted from a bulletin issued by the Biological Survey, United States Department of Agriculture.\*

\* "Bulletin No. 26. Distribution and Migration of North American Ducks, Geese and Swans, by Wells W. Cooke." This very interesting and most important publication should be read by every sportsman and bird-lover.

“It becomes evident that if any considerable number of water fowl are to be preserved, spring shooting must be abolished.”

*Gun Licenses.*—Space nor time will permit taking up the important question of gun licenses, further than to say that we believe that all the citizens of a state should not be taxed for game and bird protection. It is recommended that every person who uses a gun should hold a hunting license for the privilege. The funds derived from the sale of such licenses to be exclusively used for the protection and propagation of birds and game by game commissions which are thus self-supporting. This experiment has been adopted in a few states and has been found to work admirably.

*Aigrettes.*—The question of whether these plumes shall be sold in this country, irrespective of whether they are American or foreign, is still far from settled. It is believed that the sentiment against their use is gaining ground. Recently the State Federation of Women's Clubs in Pennsylvania and New Jersey, at their annual meetings, “Resolved,” that the club members would not in the future wear aigrettes and also that they would discourage their use by the women of the state. The disapproval of President and Mrs. Roosevelt, of the use of aigrettes, expressed in the accompanying letter (see page 239), it is hoped may have as far-reaching an effect in this country, as the same action taken by Her Majesty, Queen Alexandra, has had in England.

## RESERVATIONS

An additional bird reservation has been made by President Roosevelt since our last annual report. This, the Indian Key Reservation, Tampa Bay, Florida, was set aside February 10, 1906. (See BIRD-LORE, VIII, p. 145.) It is the province of this Association to discover new bird colonies on territory which is still the property of the Federal Government, and to apply for its reservation.

During the past year there was no money in the treasury that could be used for exploration, but during the coming year, with our increased income, a search for bird colonies will be made on such portions of the Atlantic, Gulf and Pacific coasts and some parts of the interior, that are still unexplored. When new colonies are found, if the ground occupied is federal property, application will be made for its reservation; if it is state or private property, it will be bought or leased.

During the past year a perpetual lease has been secured from the state of Maine (see BIRD-LORE, VIII, p. 37), of a rocky island which is occupied by a good-sized colony of Herring Gulls and the only remaining colony of the American Eider Duck that is known to exist in the United States. This island is in charge of a reliable warden who is employed by the year, and, as a result of his personal supervision, it is known that 45 Eiders were bred

there during the past season. The warden reports that he thinks more than this number were raised, but that, owing to the dense growth on the island, and his reluctance to disturb the breeding birds, it was impossible to make a complete census. The young reported were seen off the island in company with the parents. The importance of reservations is not confined entirely to the fact that they are protected refuges for breeding birds, but also to the fact that the results obtained on the reservations are so widely and favorably commented upon by the press, thus attracting the attention of the public to this branch of Audubon endeavor.

*Wardens.*—This important branch of Audubon work was successfully



ARCTIC TERN

Photographed by H. K. Job, at Matinicus Rock, Maine

continued during the past breeding season. Most of the wardens are employed only at that time, while the birds are in colonies. After this period the birds scatter or migrate, and there is no necessity for the services of guards. There are a few exceptions, however, when the wardens are employed by the year. One of nature's checks to over-production has been felt in several places along the coast this year in storm tides which swept away thousands of young birds or unhatched eggs, and on the Pelican Island Reservation a disease attacked the young Pelicans and 700 of them died in a few days. Such instances emphasize the necessity of guarding against the unnatural checks which improvident and selfish men place on the birds.

In Maine, thirteen wardens were employed, all of whom report a very successful season. Herring Gulls, Arctic and Common Terns and Black Guillemots were raised in large numbers, and the birds are becoming surprisingly tame and fearless.

It is hard to estimate the numbers in the Gull and Tern colonies at the present time, but they have increased enormously in the few years that they have been protected. A conservative estimate of the number of young birds this year is about 50,000.

One warden was employed in Massachusetts who had charge of the Weepecket Islands. He estimates the increase to be 2,600 young Common and Roseate Terns. In addition, the colonies of Terns on Penikese and Muskeget Islands are doing well.

In New York, two wardens were employed by the Association, and one by Mr. Hatch, of New York City, to guard the Herring Gulls on his islands, the Four Brothers, in Lake Champlain. On these islands there were 107 nests this year, as against 74 nests in 1905, a gain of nearly forty-five per cent. The Association wardens guard the Terns at Gardiner's Island and report a very large colony. In this connection it is pleasing to be able to present the appended confirmation of this report from Mr. John H. Sage, Secretary of the American Ornithologists' Union, who writes: "There is a marked increase in the number of Terns seen along the shore near and in front of my cottage at Weekapaug, R. I., and I hear excellent reports from the vicinity of Gardiner's Island. One friend said he certainly saw 2,000 birds there in June."

Your president was greatly pleased to find a young Tern just able to fly near the shore of Great Island, in Great South Bay, Long Island, N. Y. This indicates that Terns have commenced to breed there again, after an absence of nearly twenty years. Thousands of them used to breed in that locality up to the years 1883-4, when they were mercilessly slaughtered for millinery ornaments. With rigid protection it may be possible to repopulate this great bay with these beautiful and graceful birds. Early in September Terns were quite plentiful at Fire Island Inlet, and it was certainly a pleasing sight to see them about their old fishing grounds. Unusual numbers of Black Terns were seen in New York Harbor in September. All of these facts indicate that the protection given to Gulls and Terns is showing good results in the increased numbers of these species that are seen along the coast and in the bays and harbors.

In New Jersey, two wardens were employed to guard the only colonies of Laughing Gulls left in the state. The total result for the season was probably not over 1,500 young birds, as a storm tide destroyed all of the first laying at the Stone Harbor colony. Notwithstanding all the efforts of this Association to give protection, Terns seem to have abandoned the New Jersey coast as a breeding-place. There may be a few individuals breeding, but no colonies still exist.

In Virginia, seven wardens were employed, all on the Eastern Shore. This is a large territory covering many scores of square miles of beach, salt marsh and interlacing tide creeks. It is a physical impossibility for the

wardens to exercise more than a superficial oversight in this great territory. That these guards are doing good there is no doubt, both in the actual protection to breeding birds and also as object lessons to the residents of the district. To make an accurate estimate of the annual increase is impossible,

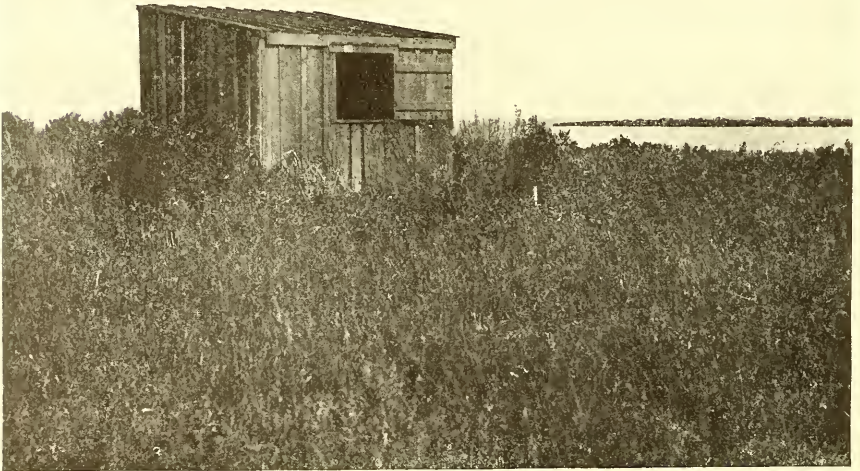


YOUNG HERRING GULL

Photographed by H. K. Job; at No Man's Land Island, Mass.

as the territory is too large; only the general result can be seen. There is no doubt about the increase in Laughing Gulls, Common and Forster's Terns, and Black Skimmers, but such species as Oyster-catchers, Willet, Wilson's Plover, Gull-billed and Royal Terns are only holding their own. When a species gets reduced below a certain point in a locality, it seems almost impossible to prevent its gradual disappearance. Clapper Rails are not increasing, owing to three reasons: first, storm tides during the breeding season; second, the exceedingly wasteful practice of egging, and lastly, excessive shooting. The storm tides cannot be prevented, therefore it is

important that the causes of decrease under the control of man should cease. There are two very small colonies of Least Tern (Little Strikers), in this district, probably not over 100 pairs. The only other colonies of this species known on the Atlantic coast are two small ones in Massachusetts and one in North Carolina. There may possibly be some on the South Carolina and Georgia coasts; the proposed exploration for new bird colonies this year will determine this fact. The Least Tern suffered more severely from millinery hunters than any other species of the family, and it is very doubtful



CABIN ERECTED BY NATIONAL ASSOCIATION ON BRETON ISLAND RESERVATION LOUISIANA

whether the small existing colonies on the Atlantic coast can be maintained.

In North Carolina, the wardens are all in the employ of and are paid by the Audubon Society and are doing a splendid work (See Report of Society p. 266).

In Florida, four wardens were employed under pay, and one of our members, Mr. Asa N. Pillsbury, volunteered to care for Passage Key Reservation. The birds breeding on islands which were in charge of our wardens all had a successful season and made a normal increase. Disease and the elements reduced the increase somewhat, but they were not disturbed by man. Unfortunately, this cannot be said of the territory in the larger part of the Peninsula of Florida. That hunting for plumes is still going on in

the proper season, is a fact, and, owing to the character of the territory and of its inhabitants, it seems impossible to prevent it. Florida has no method of game law enforcement worthy of the name, and until the legislature passes a law creating a self-supporting Game Commission, the interests of the state will suffer. The opportunity to make a vast game and bird preserve of the state of Florida and thus attract thousands of sportsmen and other tourists within her borders, who will contribute millions of dollars annually to the wealth of the state, has too long been overlooked and neglected. Some energetic and public-spirited Floridian should endeavor to break into the lethargic condition of his fellow citizens and save one of the greatest assets of the state, which now is being rapidly wasted by selfish individuals who do not understand the meaning of the words patriotism or good civics. The illicit traffic in plumes is carried on with certain New York dealers, who are willing to engage in an underhand and disgraceful trade which is on a par with smuggling and receiving stolen goods. It is pitiable that such men can be found in any community. The laws of New York should be amended in such manner as to reach and severely punish men who tempt the plume-hunters of other states by furnishing a market for their unlawful goods.



WARDEN HALFORD  
Made at Point a l'Hatche, Louisiana

The wardens in Louisiana are directed by the officers of the Audubon Society, their wages being paid from an appropriation by the National Association. The remarkable results achieved are detailed in the State Report (see p. 258).

Only one warden was employed in Texas,—at Matagorda Island. The birds were not molested by man, but many eggs were covered by drifting sand, and were thus destroyed. This is the first time that the unstable character of the sand beaches was known to be a peril to the breeding birds. It is as impossible of prevention as storm tides, and quite as destructive. The extensive coast-line of Texas, it is hoped, can be thoroughly explored during the coming season, and effective warden care provided for all the colonies of sea-birds that undoubtedly breed there.

One warden was employed in Oregon to guard the birds on the Arched Rocks off the coast near Netarts. The warden says: "The numbers of Gulls, Cormorants and Murres were so great that it is impossible to state whether there was an increase or not, but there is certainly a gain in the sympathy of the public."

A warden was stationed at Stump Lake Reservation in North Dakota. This is a unique reservation because it is the breeding place of so many of the Anatidæ. Those nesting were the Mallard, Gadwall, Shoveller, Pintail, Lesser Scaup, one of the Scoters, and the Canada Goose, together with California and Ring-billed Gulls, and Double-crested Cormorants. The warden reports a successful season and adds: "Am well pleased with the way people take interest in the protection of birds. If the reservation did nothing more, it would have much to its credit for awakening public interest."

In Michigan, the Association had three wardens,—one at the Gull Rocks, north end of Isle Royal, one at the Siskiwit Islands Reservation, and one at the Huron Islands Reservation. Large numbers of Herring Gulls were the result of the careful oversight of the wardens, together with an increase of the other birds, mostly land species found on the islands.

In conclusion, it is but just to add that it is believed that all of the wardens employed by this Association, together with those working for the State Societies and public-spirited individuals, not only give intelligent service but also take a personal interest in the care of the breeding bird colonies in their charge, and it is to their faithful supervision that the estimated increase of 250,000 sea-birds was possible.

## EDUCATIONAL WORK

This is the most important future work of the Audubon Societies, and to it must be devoted most of our thought and energies. The millions of children in the public schools of the country must be reached, and they must be taught that kindness to the lower and helpless creatures is one of the fundamental principles of good citizenship. A cruel child can never become a gentle, kindly man or woman, and indifference to the rights of birds or animals breeds a disregard to the rights of one's fellow-man.

The system of Educational Leaflets adopted by this Association in 1905 has been continued without intermission until the present time. The first Leaflets were illustrated with black and white drawings of the bird under consideration, but beginning with Number 17, which was issued December 1, 1905, the illustrations have been in the natural colors of the bird. The Leaflets are first published in the organ of the Audubon Societies, BIRD-LORE, and thereafter are issued as separates for general circulation, and especially for use in schools. The Leaflets aim to be scientifically correct



and give in a brief but popular way the chief characteristics of the bird, its nesting and food habits, and such other matter as will give the reader a very comprehensive idea of the life history of the bird and its value to man, while the picture printed in the natural colors of the bird serves to familiarize the reader with the bird so it can be recognized when seen in life in its natural surroundings. A series of questions is appended for the use of teachers, and good reference books are suggested for the student. Accompanying each Leaflet is an outline drawing of the bird which the child is expected to color; this not only serves to interest the pupil, but still further impresses upon its mind the form and colors of the bird. It is believed that when an interest in the live bird has been firmly established in the mind of a young person, it makes an earnest advocate for the protection of the bird. The value of these Leaflets from the viewpoint of educators is best shown by a few extracts from commendatory letters that have been received:

"I am more than delighted that I can have these Leaflets for my teachers, for I know of nothing which will help them more to keep in touch with the great work of economic ornithology, which is a work that lies before each one who is to be a teacher or an educated farmer.

(Signed) ANNA BOTSFORD COMSTOCK,  
Bureau of Nature Study, Cornell University."

"It is my impression from past experience that the Leaflets with colored plates should be of very great educational value in the hands of an interested teacher. Certainly, they teach the distinguishing colors of the birds as well as furnish information about the economic value of the species.

(Signed) M. L. FISHER,  
Assistant in Agriculture, Purdue University, Indiana."

"We think the Educational Leaflets, with colored plates and outlines for pupils, very valuable in school work and in nature study.

(Signed) IDA LEE CASTLEMAN,  
Herndon Seminary, Va."

The Association has made a good beginning with its plan to secure the coöperation of the teachers, as its bird Leaflets and outlines are now in use in nearly 100 schools. It is true that this is but a small part of the thousands of such institutions, but it is a beginning, and from it the work must spread until their use is universal. The active Audubon Societies will be expected to carry on the work of introducing the Leaflets and outlines in the schools of their states. This should be done systematically, by first ascertaining the names of the county superintendents and enlisting their sympathy and aid. In the states where the Audubon Society is not strong or active, help will be given by the National Association to enable them to do the work; and in states where there is no Audubon Society, the work will be assumed by the Association for the present or until such time when it can be transferred to a strong local organization. The members of this Association and the members of the State Societies must always bear in mind that the ultimate success of the bird protection movement lies in educating the youth of the country to the love of nature and kindness to her helpless creatures.

## SUGGESTIONS FOR SPECIAL AUDUBON WORK

*Bird Clubs.*—Form Bird Clubs in the schools and in rural centers. The National Association has a leaflet on this subject (Special Leaflet, No. 3), which should be circulated widely. Bird Clubs will excite the interest of children and give them that "something to do" which every energetic child needs.

*Bird Boxes.*—The State Societies are recommended to offer a series of prizes for the best-planned and most successfully used bird-houses. This will be another means of securing the coöperation of the young people and also of attracting around the homes valuable and interesting birds.

*Feeding and Drinking Places.*—There are occasions in winter when birds suffer very greatly for lack of food, especially during and after heavy sleet-storms, when a crust forms on the surface of the snow and the trees are encased in ice. It is the duty of every Audubon Society to urge the public, especially the children, to feed the birds at such times. There is not a paper in the country that would refuse to publish, without charge, such a request, if it is made by an Audubon organization. The press is always willing to further such good civic effort. The request should be accompanied by directions as to kinds of food to be distributed and how it should be done. Thousands of birds may be saved in this manner, and many may be saved unnecessary suffering.

*Quail.*—The growing scarcity of Quail in a large belt of the country is in part due to the severity of the winters, when they die from lack of food, which is covered by a crust of frozen snow. This can, in a great measure, be prevented by the Audubon Societies, if they will take up the matter systematically. Send circulars to the schools, and the granges of your state, and urge them to locate the coveys of Quail in their neighborhood in order to feed them when necessary. The circulars should give full directions as to best methods of feeding and kinds of food. The press will always be glad to aid in this work by publishing your Quail circulars. It must be remembered that, when the Bob-white disappears from any of the middle or eastern states, they will be gone forever, as it will be almost impossible to replace them by birds from other states, nearly all the commonwealths, especially in the South and Southwest, having already passed laws prohibiting the export of Quail, either alive or dead.

## STATE REPORTS

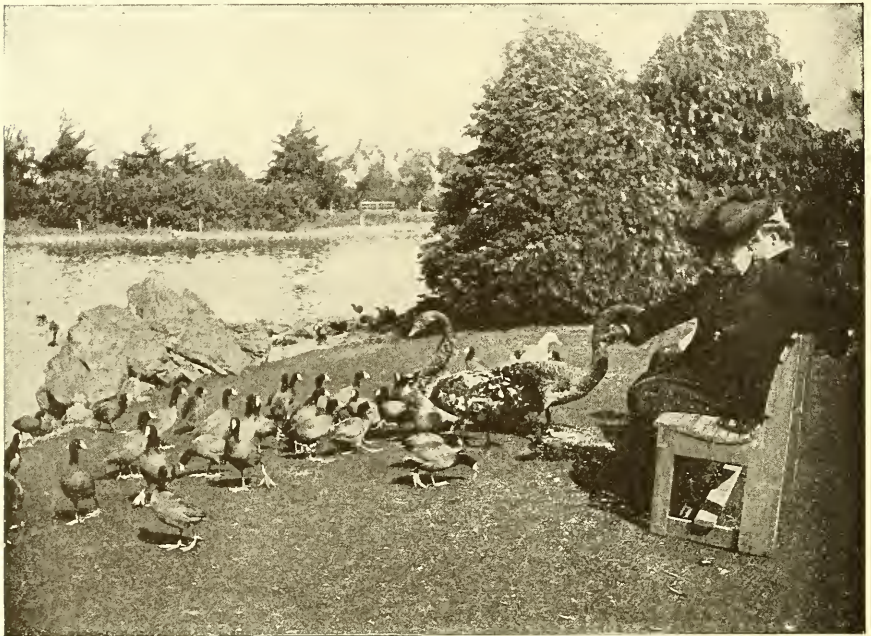
The reports of the State Societies are herewith presented, and it is suggested to the reader that a careful perusal of each one will show how many earnest and active men and women are engaged in the great humanitarian, as well as economic, work of preserving the wild birds of the country for the pleasure and benefit of the generations that will follow us.

**California.**—“The Audubon Society of the State of California was organized May 31, 1906. In the four months of its life it has printed and circulated, in the interest of song-bird and game protection, 1,500 pamphlets, leaflets and circulars and 2,000 signs and warning-cards, and has distributed a considerable number of the leaflets issued by the National Association. It has mailed copies of the bird laws to every farmers' organization and every school superintendent in the state, and its warning-cards have been placed in several hundred postoffices, resorts, hotels and livery stables. Its secretary has written more than 1,000 letters and mailed nearly 5,000 parcels, and, before the meeting of the Legislature in January next, the Society will be in touch with every active farmers' club and grange and game protective association in the state.

“The local Audubon societies, senior and junior, previously organized, and several humane societies with Audubon committees, are already affiliated with the State Society and are giving faithful and effective aid for the saving of the birds. The Society has gained the valued help of a great number of influential newspapers, and numbers among its members many of the leading educators and other prominent professional men and women of California. These, by their active interest and splendid coöperation, have lightened the labors and greatly encouraged the officers of the Society in their efforts to spread, to every corner of the state, the gospel of bird protection and reasonable conservation of wild game.

“An important result of the work of the State Society, during its brief but active life, is the marked gain in public sentiment favorable to the enforcement of the non-game bird laws and the enactment of better laws for the protection of the wild game. One of the important results of this sentiment will undoubtedly be the cutting-down of the open season for taking Doves, to a much more humane and reasonable period than is provided by the present law. A hunting-license law, which the Society has strongly urged, is also one of the probabilities. The Society has also actively supported, and will continue to work for, the proposed act of Congress authorizing the President to set apart portions of the Government Forest Reserves as game and bird refuges and breeding grounds. A very strong public sentiment favors this proposition in California.

“There are many and increasing calls upon the Society from all parts of the state for addresses or lectures along the lines of the work of the Society to be delivered before clubs, institutes and conventions of farmers and teachers. This is a splendid indication of the increase of interest in bird life and bird protection that has come about in California, but, owing to the great size of the state and the lack of competent lecturers with means and leisure to comply with these requests, many of them must necessarily be declined. This is very much to be regretted, as it has been our experience that nothing



FEEDING WILD FOWL IN THE GOLDEN GATE PARK, SAN FRANCISCO

During the winter large numbers of wild Ducks, Geese and Coots frequent this park, where they soon respond to the influences of protection by becoming as tame as barn-yard fowls. Photographed from nature by John Rowley

advances the work of the Audubon Societies more rapidly than addresses on the value of birds and the need of their protection before meetings of farmers, teachers and others interested in civic progress. One of the great needs of the Society is a set of lantern-slides of the more common California birds, to illustrate a lecture for school and club work. An effort will be made to supply this need within the year. The Society is coöperating with game-protective associations and state and county wardens, and systematically follows up all reports of violation of the bird and game laws that come to it. While the Audubon Society of California is not yet financially strong, it is vigorous in its methods, strong in the strength of its splendid membership, fearless in the pursuit of violators and well equipped for the work that is before it.”—W. SCOTT WAY, *Secretary*.

**Connecticut.**—"The work of the Connecticut Audubon Society the past year seems to have been chiefly in the line of making repairs. In one more year we shall have completed our first decade of existence as a society, and, naturally, our materials have become worn and have needed to be replaced with new. This year we have put new books in place of many of the well-thumbed ones in the fifty traveling libraries. We have replaced a much used lantern for the lecture; we have mended the boxes that hold the lecture outfit, quite an expensive item, and we have increased the numbers of the portfolios of pictures.

"The secretary of the State Board of Education paid our Executive Committee a visit last spring for the purpose of inquiring if we could suggest some way to use the traveling libraries during the summer, when the schools are closed, as these libraries are primarily for the use of school children. On our suggestion, he decided to send the books among the private circulating libraries, as well as to the public libraries.

"Mr. Hine also suggested that the secretary hire some one to accompany the lectures, to read them and explain the pictures. This is a work we hope to do in the near future.

"The Executive Committee of the Society has held seven meetings during the year, for the transaction of the Society's business. These meetings have been well attended, and the members present often represent nine towns in our state. By your consent the appropriations of moneys are made by this Executive Committee and the work is planned by its members.

"Last autumn the Society had presented to it the original steel plate of a very fine portrait of John James Audubon. Engravings from this plate are for sale for the benefit of the Society.

"The Connecticut bird laws have been translated into Italian and Hungarian, printed on large posters, and these posters have been sent out and posted all over the parts of the state where these people live. Also copies of the state bird laws in English have been sent to all granges in the state.

"The Society has contributed \$20, as usual, to the Thayer Fund for protecting our sea-birds.

"The Executive Committee has appointed one of its members chairman of a committee to take action in the remodeling of several bird laws during the coming session of the Legislature. As noted at the last annual meeting that the annual illustrated lecture for which the Society pays should go to the town showing most work done for that Society in the year, and most progress made, it is awarded to the town of Norwalk, which is most alive at present in Audubon work.

"Our membership this year has increased by 1,352,—1,210 of this number being associate members or children who have signed a pledge to protect birds and who have received the buttons. This does not show so great an

increase in membership as we should like, but we know that a great deal of intelligent work for bird protection is being done among the schools, and among members of our foreign population, where it is so greatly needed.”—HELEN W. GLOVER, *Secretary*.

*Library Report.*—“From September, 1905, to June, 1906, may be called the banner year for the Audubon libraries, for their circulation has been larger than during any previous year. The total circulation of books has been 3,279. Library 39 had the largest circulation. It was sent out twice and had a circulation of 337. Library 13 was second, sent out once and had a circulation of 311. Each of five other libraries had a circulation of over one hundred, going out once.

“A personal request that the teachers of the various schools should send us their opinions of the books has brought us so many interesting letters that a library report would hardly be complete without some extracts from them.

“From New Haven, Miss Briggs writes, ‘The library and charts have helped to secure thirty-one bird lovers and bird protectors,—my entire class. One boy can identify sixty different birds, and all the children in the school know at least twenty-five of our common birds. The boys who used to delight to use air-guns and sling-shots now prefer to use their eyes and opera-glasses.’

“From Meriden the teacher, Mrs. Welch, writes, ‘Words would fail one to express the delight and enjoyment these books have given us. There were not enough of them, and we have not kept them half long enough, is the sentiment of the children. I believe the good they have done is incalculable in the love for birds, flowers and animals which has been created or developed, and for the love of good books and the care of them.’

“From Redding comes the report: ‘The books have been read and enjoyed in many homes, some cultivated and others but scantily furnished with books, and they have proved exceedingly helpful and stimulating, and I believe it is not possible to estimate their influence and value.’

“Miss Scott, of Morris Cove, says: ‘We have been using the Audubon Library at our school, together with the bird charts, for three months; and not only in the school children but also in their parents and friends there has been aroused a great interest in birds, one of the mothers having read every book aloud to her children.’

“The portfolios of pictures have been greatly appreciated, as the teachers use them for decorating the school-room.

“Miss Bearn, of Greenwich, writes: ‘We have just fairly reveled in your pictures, and all the children were sorry to see them go.’

“When it is considered that many of the children at these schools are of foreign birth, the interest they take in nature work seems most surprising.

“Many similar letters show that much has been accomplished by the

distribution of these books and pictures, and that this branch of our work, the 'Educational Work' of the Society, has proved of great value."

**Delaware.**—"In answer to your letter of September 5, I am sorry to say that I have no official report to send you. The work of our Society this year has been limited simply to securing new members, and efforts to enforce our laws, which have resulted in many arrests, and fines for the offenders."  
—MRS. WILLIAM S. HILLES, *Secretary*.

**District of Columbia.**—"Commencing with October, 1905, the program of specially arranged events has been large and particularly successful. Trips to the Zoölogical Park for the study of live birds and animals, a winter filled with lectures on birds and their habits, plumage, songs, food and winter distribution, for the adult members and the public, together with talks for children, followed by field meetings during the spring migration period led by able ornithologists, made one of the most successful and entertaining seasons the Society has ever had.

"Migration records were posted all last spring in the Public Library, through the courtesy of Mr. George F. Bowerman, Librarian, and frequently illustrated by pictures of birds arriving at various dates. At present the Library is displaying a publication from the Agricultural Department giving the game season and the laws governing hunting in the District of Columbia and neighboring states.

"The District bill, No. 401, approved June 29, 1906, was a triumph for us and is entitled: 'An Act to prohibit the killing of wild birds and other wild animals in the District of Columbia.' It prohibits all shooting in the District except on certain marshes, and makes the District practically a game refuge, so far as upland game and birds are concerned. It also prohibits pursuit of Ducks and Geese with any boats excepting row-boats, thus saving water-fowl from being hunted on the rivers from launches and motor-boats. A movement has been started to stock the parks of the district with certain kinds of game. The new law against shooting will have the effect of adding to our Capital City the great charm of abundant song-birds, and even now some of our most frequented thoroughfares are beautified by glimpses of Cardinals, Bluebirds and Red-headed Woodpeckers.

"A fund of about \$200 has been raised by a committee working in coöperation with the Game and Fish Protective Association, and several Swans, Canada Geese and a pair of Wild Ducks have been liberated in Rock Creek Park, and provision made for feeding them.

"A branch of this Society was started last spring by Mrs. F. E. Watrous, at Wellsboro, Pennsylvania, and is reported in a flourishing condition. Our Society owns a lecture with sixty-nine slides free for the asking, also a collection of bird-skins for study purposes. About four thousand five hun-

dred notices, publications, BIRD-LORE Circulars and Leaflets have been sent out this past season. More children belong to the Society than ever before. We know that each year this Society grows in strength and efficiency."—  
 MRS. JOHN DEWHURST PATTEN, *Secretary*.

Florida.—“Membership, including all grades, 830; Leaflets and circulars distributed, 8,000; summary of the state bird laws for posting, 75; warning notices for posting in hotels, stations and express offices, 500 (for those in express offices through the state thanks are due the Southern Express Co.); Audubon Charts for use of schools, 36; teachers having free membership, 122. Five prizes of two dollars each were given for competitive papers on ‘Birds’ at ‘The Students-Help Fair.’ Two leaflets have been published. ‘The Palmetto Club’ of Daytona, ‘The Florida Federation of Women’s Clubs,’ and the ‘Fortnightly’ at Palm Beach, subscribe for ‘sustaining memberships.’ The ‘Housekeepers Club’ of Cocanut Grove and ‘Fortnightly’ at Winter Park, have annual memberships; the ‘Sunshine Society’ includes the care and love of birds in its altruistic teachings. At the Robert Hungerford Normal and Industrial School, Eatonville (for colored children), ‘bird talks’ with the charts have been given, while evenings are frequently devoted to song and recitations on birds. Our failure to enlist the coöperation of teachers generally, is a matter of great regret. This year the school boards of Orange county have promised that one hour each week shall be devoted to bird study in the schools. The Florida Audubon Society supply, free, charts and literature.

“At the annual meeting of the ‘State Federation of Women’s Clubs’ in April, at Tampa, able papers were read on bird protection. Mrs. E. A. Graves, chairman of the Bird Preservation Committee, reported active interest and good work in a majority of the twenty-two clubs of the Federation. The Auxiliary Committee at Port Orange and San Mateo have been efficient helpers. At Cocanut Grove Mrs. Kirk Munroe formed in January, 1906, a club of twenty-five boys, ‘who are banded together not only for the protection of birds but for good citizenship.’ ‘The Rangers’ is the name the boys have taken. When elected, each boy pledges not to kill a bird, and to protect, as well, all animals from cruel treatment. The club motto is ‘Be kind to the birds.’ Some native bird is chosen each week for study and for discussion at the club meetings. The Florida Audubon Society has offered a prize (book) to the club for the best essay on birds. Most of the boys have been preparing for this during the summer. It will be awarded this fall.

“The subject of providing game wardens is a serious one. Few responsible men, after the murder of Guy M. Bradley, are willing thus to jeopardize their lives, for, if the laws of the state cannot be enforced and criminals brought to justice, no man has a guarantee for his safety. There are forty-



six counties in Florida, and there are thirteen game wardens, so that thirty-three counties depend on their over-busy sheriffs. Some six of these sheriffs have rendered timely aid in arrests and the prevention of cruelty and illegal shooting. This does not include the game wardens appointed by the National Association at the Tortugas, and Sand Key, also at the Pelican Island, Passage Key and Indian Key Reservation.

“In 1905, President Roosevelt made a reservation of Passage Key, Tampa Bay, and in February, 1906, of Indian Key as preserves and breeding grounds for native birds. These, with Pelican Island Reservation, are, we hope, but the beginning of a series of important reservations, thus enabling us to preserve and perpetuate the birds, which should ever have been the pride of Florida, making, as they did in the days of Audubon, the state a veritable ‘wonderland.’

“There has been frequent testimony as to the increase of bird life. Mr. C. P. Russell, at Lake Helen, Volusia county, writes, May 30, 1906: ‘It is remarkable what a change there has been during the past few years in regard to shooting small birds. In consequence, such as Blue Jays, Brown Thrashers, Meadowlarks, Sand Doves, Woodpeckers, Blackbirds, Butcher Birds and Cardinals have increased wonderfully in numbers, and even the Chewinks, so shy, have begun to show themselves. A large share of this better sentiment can be rightly, I think, attributed to the influence of your Society, and for this reason I wish to be identified with it.’

“As the Florida Society is unable to show a membership list that compares with that of many of the states, it would ask you to remember the very different conditions under which it exists; still it congratulates itself that, while its old friends do not desert its ranks, new names are being added to its list, surely showing a more intelligent and wide-spreading interest in bird protection.”—MRS. KINGSMILL MARRS, *Chairman of Executive Committee*.

**Illinois.**—“The Illinois Society has carried on its usual routine work, holding directors’ meetings during eight months of the year and our annual meeting in May, at which meeting Mrs. Irene G. Wheelock read a charming paper on ‘Birds at Night’ and the Rev. George B. Pratt gave a most interesting history of the Illinois Society. Four new directors have been added to the Board—Mrs. Wheelock, Miss Amelie Hannig, Mr. Charles M. Roe and Mr. Frank Daggett—and six new vice-presidents have been elected, all from places outside of Chicago, among them being Mr. Frank Hall, of Aurora, Superintendent of Farmers Institutes, and Dr. John A. Wheeler, the State Game Commissioner. Few new members are reported, —only 33 adults and 2,738 Juniors. An effort has been made to organize a new system by having a secretary for each county, but the results are small, only a few having been secured.

“The educational work is the major part of the year’s work. A book on the birds of Illinois, ‘How to Know One Hundred Wild Birds of Illinois,’ by Dr. Lange, has been published under the auspices of the Society, and a nine-page leaflet, ‘A List of Books and Periodicals Recommended by the Illinois Society,’ has been prepared by the president, Mr. Ruthven Deane, and published for distribution to librarians, etc. Articles by several of the directors have been published in ‘School News.’ The usual letter from the secretary to the teachers of the state has been published in the Illinois Arbor and Bird Day Annual. A letter to the county superintendents of schools was written and sent by the junior chairman. A letter to the secretaries of the Farmers’ Institute was written by the president and also published in the ‘Prairie Farmer,’ calling attention to the value of birds to the farmer. A letter on the winter feeding of wild birds was also sent with a postal card (published and purchased in Rhode Island) to the Secretaries of Farmers Institutes. One hundred copies of ‘By the Wayside,’ have been sent each month to teachers in the state; 8,228 leaflets have been distributed, being sent to the state superintendent of schools for distribution among the teachers.

“The president, Mr. Deane, with the coöperation of Mr. Dutcher and Mr. Bode, the latter being president of the Western Millinery Association, succeeded in bringing before the Association the great need of their coöperation with the Audubon Societies to save the bird-life of the country. The result was the passage of excellent resolutions, in which the members agreed to purchase no more aigrettes, etc., after January 1, 1906, and to sell no more after July 1. Unfortunately, these good resolutions, like many others, have not been strictly adhered to by all the members. Mr. Deane has also succeeded, with much patient effort, in inducing some of the large Chicago stores to take aigrette-trimmed hats from their show windows.

“There seems to be a notable increase of feather-wearing on the part of members of the Society. The feathers are largely those of domestic fowls and game birds, but it is a serious question as to whether these, though ‘lawful,’ are ‘expedient,’ their effect on children, in particular, being harmful. The Society has had paid over to it the sum of \$1,000—a bequest from Miss Nancy Laurence, of Watseka, a lover of birds in her death, as she was in her useful life. Aside from this bequest, the receipts for the year have been \$299.50 and the expenses \$247.57”—MISS MARY DRUMMOND, *Secretary*.

**Indiana.**—“The work of the society has been continued along the lines mapped out some years ago. Of these, by far the most important is the educational work. This includes the sending out of printed matter, publishing, in newspapers and journals, articles of interest regarding the birds and their protection, and lectures in schools and various organizations.

“There is a constantly growing interest in the schools in the subject of bird study, the pupils taking great interest in protecting and feeding the birds during the winter weather, providing them with nesting materials in the spring and observing their food habits at all times of the year.

“The work of the State Superintendent of Public Instruction, in sending out the Bird and Arbor Day Annual, is most helpful, practically putting a bird-study handbook, full of inspiration, into the hands of every teacher in the state.

“The newspapers of the state are actively friendly, publishing much matter that makes for the welfare of the birds, appealing to all classes of readers. A specially valuable work for the birds has been, during the past season, the publication in the ‘Ladies’ Home Journal’ of a series of bird articles by Mrs. Gene Stratton Porter, a member of the Indiana Audubon Society. This magazine goes into nearly a million and a half of homes and has roused interest and enthusiasm for the birds in an enormous audience. It would be most helpful if this magazine would publish another such series next year.

“The Audubon Society has the active coöperation of the State Fish and Game Commission in the law enforcement part of its work, which has been of much benefit in controlling the vicious and thoughtless element whose education must be by fines.”—MISS FLORENCE A. HOWE, *Secretary*.

Iowa.—“Satisfactory work has been done; the passage of the Model Law, with only a few changes, by the 31st General Assembly, being one of the achievements of the Society. This was accomplished with the aid of the National Association, together with that of Senators Courtright and Winne, Mr. W. F. Parrott and many club women.

“Although the membership has not been increased to any extent, a growing interest seems to be manifest throughout the state. The officers, directors and committees have been commendably active. At the Waterloo Chautauqua Assembly in July the Audubon Society established headquarters, with the president, Mrs. Ellen Brown, in charge. Literature was distributed and questions answered regarding the work. The president found an awakening interest in the subject, made suggestions as to courses for bird study and discussed plans for furthering the work.

“The following report of Miss Tinkham shows how the work is being conducted in many of our schools:

“The work that is being done in behalf of the Audubon Society in the schools of Iowa seems to be the study of birds, generally, by means of bird books and charts. Owing to the fact that this study has been almost wholly neglected in the teachers’ preparation, it has been necessary for them to do some work by themselves. This has been done through the organization of

bird clubs. The teachers have gone into the woods and found the haunts of the birds and, by getting a closer insight into the lives of these tenants of the wood, have learned their habits and peculiarities, and, becoming more familiar with them, have learned the localities in which they abound. Through this contact with nature, the teachers have been enabled to make bird books and charts of their own. The instruction given to children begins in the kindergarten department. There, and in the primary grades, the perfect outlines of the different birds are given to the children, and, under the supervision of the teachers, they put in the correct coloring. In this way they become familiar with the birds and also more interested in them. The teachers then tell the story of the lives of the birds, showing them the pictures of the eggs and their homes. Of course one bird will be the subject of two or three lessons. Thus they learn where to look for the little creatures. As the work is carried on in the higher grades it broadens out. The laws regarding birds are taught and the children grow rather to protect than to destroy them. This, with the other nature study, is continued until very much is done for the plants, trees and animals, as well as the birds.'

"Both Dr. Margaret Clark, chairman of the executive committee, and the secretary have gladly responded to several invitations to attend district meetings of the federal clubs, Arbor Day exercises, in our schools and gatherings, in public libraries, reading papers and giving talks regarding our birds and nature.

"Much literature was distributed throughout the state before and after the passage of the Model Law, in all amounting to about 5,000 leaflets, circulars, newspapers, etc., the farmers' institutes receiving a goodly share of the same.

"State Deputy Game Warden H. H. Yordy, of Waterloo, has rendered valuable service to the society by enforcing the new law. Several arrests have been made, the offenders not only being fined but in some cases the firearms being confiscated.

"Mrs. Rosa Reiniger Wilson, superintendent of the Jenkin Lloyd Jones Band of Mercy, at Mason City, is doing good work among the children of that place and is not only trying to interest them in the birds but is waging war against cruelty in all its forms.

"The Audubon work in our state might be generally advanced if leaders for junior societies could be more easily obtained, and if all bird-lovers who have not the time to become active in this work would voluntarily become either regular, associate or life members of the State Organization."—MRS. WILLIAM F. PARROTT, *Secretary*.

Louisiana.—"Since the organization of the Audubon Society of Louisiana, and in consequence of the active work carried on by us, a very

perceptible interest has been aroused in the general public in the question of bird preservation. The fact of the matter is, before that time there was no interest whatever, but, thanks to the help of the editors of the daily newspapers, who have given us considerable space, the economic as well as the humanitarian aspects of the question have been so repeatedly brought to the notice of the public that a sentiment has been engendered which speaks well for the ultimate outcome.

“Just how far or to what lengths the movements for bird protection will go we do not know. One thing, however, stands out prominently, and that is, that the former conditions of indiscriminate bird slaughter will never again be tolerated. After we broke up the business of trapping and shipping Mockingbirds and Cardinals out of our state, as well as all species of game-birds, our greater activities have taken the form of planning and carrying out the possibilities of bird-breeding on our great reservation in the Gulf of Mexico. With our own eighteen islands, comprising the Audubon Reservation, and the seven adjacent islands of the Breton Island Reservation, belonging to the federal government, we control an area of upwards of 700 square miles of land and water devoted exclusively to the nesting birds.

“The National Association aids us in this work by paying the wages of two wardens and, in consequence, these islands are rapidly becoming a marvel in bird-breeding. If all goes well, in a few years they will become the most wonderful spectacle of wild sea-bird life in this country or probably in any other country. Thousands upon thousands of Terns and Gulls were raised there during the present year, and the work has only begun. Our state legislature reënacted the A. O. U. law, with numerous additions, and now it is as nearly perfect as the present conditions will warrant.

“Unfortunately, we have to lament one backward step, due principally to the sudden stoppage of immemorial custom. Our legislators very weakly met the proposals of some misguided ignorant persons to take Robins and Cedar Waxwings out of the non-game class and placed them in the game-bird class, permitting their killing during certain seasons. We have accepted the situation, however, and will attempt to meet it by having the economic value of these birds determined by the experts of the Department of Agriculture, and we feel sure that their reports will end this foolishness for all time to come.

“Our peerless songster, the Mockingbird, is increasing in numbers all over the state and is holding his own against the assaults of that pestiferous foreigner *Passer domesticus*. Laughing Gulls and Forster's Terns are appearing on the waters adjacent to the city of New Orleans, where their absence has been noted for many years.

“We have tried to teach the people of our state the tremendous economic importance of bird life to the welfare of mankind, and we can frankly and truthfully report that our words have been and are being heeded. Our

state legislature appointed May 5 of each year as memorial day for John James Audubon, who was born in our state on that day. From now on, the schools are compelled to have suitable exercises on these recurring anniversaries, and we expect great good to come from these celebrations of Bird-Day."—FRANK M. MILLER, *President*.

Maine.—“The Maine Audubon Society was organized at Fairfield, Maine, July 31, 1902. It now consists of eleven local societies; of these five have reported, showing a membership of 686. The Maine Society works to inculcate in the minds of the young the sentiments of the organization, and the best field is found in the public schools. The most successful secretaries have interested the teachers, and thus secured large memberships, and the benefit of an ideal organization. The field is very large, and the benefits to be derived from its cultivation no less so.

“Public sentiment for bird protection undoubtedly strengthens year by year. With the elimination of the prospect of gain for a limited class only, afforded by the feather trade, the protection of most of the non-game birds is favored. Exceptions are to be found among certain classes, notably foreigners and inexperienced persons, who carelessly shoot any living thing in the absence of acknowledged game animals; while such a class is an annoyance to the majority of citizens, it is not believed to be relatively important. If the work which our Audubon Society has entered upon can be systematically extended, this annoyance must become less and less with each succeeding year.”—ARTHUR H. NORTON, *Secretary*.

Massachusetts.—“During the past year our membership has increased to 6,468. Of these, 1,868 are Juniors and 120 are local secretaries. We have, as usual, distributed many Educational and BIRD-LORE Leaflets, cloth warning notices, and copies of the law. Our three traveling lectures and four traveling libraries have been used very often, and there has been a good sale for our bird charts, plates and calendars. The success of our 1906 calendar has encouraged us to issue one for 1907, which has also been printed in Japan, in the same artistic manner, with six new plates of American birds.

“Legislation at the State House has been watched with interest by our Protection Committee, and all complaints of violations of law have been reported to the state officers, the Fish and Game Commission, and were immediately investigated. We are fortunate in having the chairman of the State Fish and Game Commission as a member of our Board of Directors. A few complaints of the selling of aigrettes were received last spring which were reported to him, and were promptly and effectively attended to.

“It is pleasant to report that a larger number of women than usual, several of whom were not members of our Society, called at our office to

ask about feathers on hats they were intending to buy, which the milliners had assured them were 'just manufactured ones.'

"In addition to the regular monthly meetings of the Board of Directors, a course of four lectures was held, with Mr. Schuyler Mathews, Mr. Ernest Harold Baynes, Prof. C. F. Hodge and Rev. Herbert K. Job, as lecturers."—MISS JESSIE E. KIMBALL, *Secretary*.

**Michigan.**—"During the past year a marked growth in sentiment favoring bird and animal protection has been apparent in Michigan. Animals in general are included in the report, because the Society has been called upon to protect animals, both in the wild and domestic state, and cooperation has always been given where possible. The secretary considers this advisable, for those interested in other forms of protection feel that the society stands for something and are willing to give it sympathy and aid. Where the Society refuses to act because of limitations in scope, it is quite likely to make an enemy.

"Another wholesome condition that gives hope for the future is the fact that a number of public officials are willing to enforce the law, due, perhaps, to the general agitation for the better things throughout the country. However, the wedge has no more than entered in Michigan in this respect, as our game-warden system is still next to worthless. More active workers have been secured during the past six months than in the previous two years. Much time has been spent in endeavoring to organize local societies, with comparatively poor results. Our state does not seem ripe for vigorous societies, and we have found that conscientious active workers at various points do more than half-organized or indifferent societies. A number of active workers have been found who have taken the responsibility of bringing Audubon work before the superintendents of schools, and teachers, and a few have contributed to the press.

"The State Educational Department aids us in the distribution of literature. After the organization of the Society, most of the work was confined to the suburbs of Detroit, as our subscribers are almost exclusively citizens of that city. During the past year the work has been wholly in the state, with the result that those of the city who do not keep posted are falling behind in their subscriptions. We have had two or three lectures during the winter season in Detroit, and in that way keep the people of the city in touch with the work. In the state it is almost impossible to get subscriptions. In regard to the work of protection, we are hampered because of lack of funds. The Model Law, which the National President, Mr. Dutcher, and the Society, were instrumental in passing, gives the Society the right to appoint four deputy wardens, but, as no appropriation was made, we have not been able to take advantage of this provision of the law.

“ Mr. Charles L. Freer gave \$25 for the protection of game-birds at the St. Clair Flats. Deputy Sheriff Frank Haydette, of Algonac, was employed, and in various trips seized game-birds in trunks, etc., but could find no owners. In these trips he also seized two fishing nets, and so we were able to protect the fish incidentally. The secretary is in correspondence with those deputy wardens who show any disposition to enforce the law, and encourages them by showing that their efforts are appreciated.

“ About the best word that can be said for the Michigan Society is that it has done something in getting a semblance of order out of chaos, and in securing the passage of the Model Law, which has undoubtedly improved the situation. Candor, however, obliges us to say that we have made but a beginning and that there is still an immense amount of work to be done. We feel grateful to Albert Wiedeman, county game warden, at Leoni, for prosecuting for the killing of Robins, especially as he had reason to fear a physical assault which subsequently took place. Also to Frank L. Covert, prosecuting attorney of Oakland county, who was the first of those in his position to write that he believed in the law and would enforce it. His letter to an offender, who was shooting song-birds daily, for the purpose of feeding his ferrets, brought results.

“ The secretary has been obliged to give considerable time in carrying on correspondence with state workers, for, unless letters are answered promptly, and in detail, the workers lose interest. The secretary is compiling a booklet, including a history of the Society, a copy of the state laws, conditions in other states, methods of work, needs in the different localities, etc., which it is hoped will answer all questions and give all necessary directions for work. The Michigan State Fair is held in Detroit, and the management has been kind enough to give our Society space for the purpose of distributing literature, etc. We had a call for Audubon buttons. The philosophy of wearing a button is that those not familiar with its meaning open up a conversation on bird protection, where the matter otherwise could not be broached. The merchants, in the cities of the state, persist in selling bird millinery in opposition to the law. We are now planning a letter to these dealers. We are opposed to the law allowing counties to give a bounty on English Sparrows, as we find that native Sparrows, including Goldfinches, are destroyed in the winter season as English Sparrows.”—JEFFERSON BUTLER, *Secretary*.

**Minnesota.**—“ The Minnesota Audubon Society has not been especially active the past year. Whatever work has been done in the state is due to the efforts of individual societies or clubs, and persons especially interested in bird study or bird protection. Some societies are quite active.

“ In some parts of the state the study of birds is taken up in the public schools : the children, after becoming interested, do not care to kill the



birds as before, or to disturb the nests. It seems that a greater effort should be made to encourage the organization of Audubon Societies in all schools, for when we have taught the children to love the birds we have done much toward accomplishing that for which the Society exists."—MISS JESSIE L. WHITMAN, *Secretary*.

Missouri.—“ I venture to state, without fear of contradiction, that no law has been enacted in this state, within recent years, which has received more favorable comment than the present bird, game and fish law. Its fearless and impartial enforcement has caused a marked increase of wild life. This convincing illustration has created favorable sentiment for bird protection even amongst those who, in former years, looked upon the enforcement of game laws as an infringement upon their rights and habits.” —AUGUST REESE, *Secretary*.

Nebraska.—“ The Nebraska Audubon Society is still in existence and hopeful, though I regret there is so little to report. Work among the children is most gratifying, and with them has been our chief efforts. Every year their sympathy is deeper, and their interest keener in bird life. There have been fewer cases of cruelty to birds reported this year than in any year in five. You ask if I have observed an increase in public sentiment for the protection of birds. Emphatically, yes. However, I have one painful observation to make: The sad story of the White Heron, no matter how often repeated, seems to affect but little the demand for the aigrette of that unhappy bird.”—MISS JOY M. HIGGINS, *Secretary*.

New Hampshire.—“ The work of our branch societies follows principally educational lines. The systematic observation and study of birds is maintained through the season, and discussions are held and papers read at the regular meetings. The field days have proved occasions of great pleasure and profit. Occasionally activities have taken a more aggressive form. Cases of violation of the state bird laws have been followed up, with the aid of the Fish and Game Commission, convictions secured and fines imposed. In past years much of the trouble has been caused by unlicensed taxidermists. To the best of our knowledge and belief, their operations have been finally checked. Many warnings for first offences have been given, and warning posters have been supplied to persons requesting them.

“ The circulation of our literature and that of the National Association has been continued. It is encouraging to note a marked increase in the demand for the Educational Leaflets. Requests for them have come from women's clubs, where such material is used in the preparation of papers, from teachers, from granges, and from private individuals.

“ A little circulating library of popular and instructive books on birds

have been a source of delight in districts where such books are not easily obtained or cannot well be afforded. The traveling lecture, with stereopticon, has carried instruction and entertainment to similar places, as in previous years, and a new lecture, 'The Economic Value of Birds of the State,' to be loaned on request, has been added to our stock.

"Bird charts and pictures have been furnished to schools not able to purchase them. The magazine, BIRD-LORE, has been placed in the Manchester City Library and the Boys' Reading Room, recently established. In accordance with the urgent request of the National Association, our Society expressed its approval and endorsement of three bills then pending in the national legislature; namely, the bill for a 'National Forest Reservation in the White Mountains,' endorsed and strongly urged by the Society for the Protection of New Hampshire Forests, the bills of Senator Gallinger and Representative Babcock, 'To prohibit the killing of wild birds and animals in the District of Columbia,' and a bill before the Senate Committee on Forest Reservations for 'The Protection of Animals, Birds and Fish in the Forest Reserves.' In these three cases our Society authorized the secretary to communicate with the New Hampshire delegation in Congress and with the proper Congressional Committee.

"The Society has made the following contributions: \$25 to the Mrs. Guy M. Bradley Fund; \$25 to the National Association. We have received two legacies of fifty dollars each. The prizes offered two years since in the ungraded schools for the greatest improvement in schoolhouse grounds are to be awarded this fall. The Society called for photographs of the surroundings previous to the beginning of the improvements, and it is hoped that photographs to be taken at the close of this season will show that earnest effort has been made to render these surroundings more beautiful and attractive.

"The secretary hopes that this report may be sufficient proof that the New Hampshire Audubon Society is neither 'on the ebb' nor stationary, but is fulfilling its avowed mission as a barrier between wild birds and a very large unthinking class of people, and a smaller but more harmful class of selfish people.

"An indication of the sustained public interest in birds and their protection is the fact that, through the influence of our Society, Mr. Herbert K. Job's lecture 'Among the Egrets with Warden Bradley,' and Mr. William L. Finley's lecture 'Among the Sea Birds off the Oregon Coast' are to be given this winter under the auspices of the Manchester Institute of Arts and Sciences."—MRS. F. W. BATCHELDER, *Secretary*.

**New Jersey.**—"Accounts of our work in New Jersey differ very little from year to year. Our membership increases but slowly, the gain being chiefly among the children. No one can doubt, however, that there is a

widespread interest throughout the state in the well-being of birds, and a valuable educational influence is constantly at work. The children are being taught to observe bird-life about them, and find nests for themselves for the purpose of seeing the growth of the little birds from the egg, and such children will grow up with an appreciation of the valuable assistance afforded to man by the bird family.

“As a state, we seem to be continually in a condition of warfare. This is a healthy condition, however, and the results each year have been such as to make the workers feel that our efforts to protect such birds as the Flicker, Mourning Dove, Robin and Meadowlark, have not been in vain. We feel that the many appeals to the press of the state, and the numerous letters sent to our representatives at Trenton, have borne some fruit.

“A serious effort was made last January to distribute some of the valuable Educational Leaflets of the National Association among the farmers of the state, opportunity being taken to send over two thousand of these leaflets to the leaders of the various granges to distribute at their yearly meetings. Very interesting responses were received from some of these farmers, and let us hope that in the future the Hawks and Owls will receive a little more consideration from those individuals whose property they protect.”—MISS JULIA S. SCRIBNER, *Secretary*.

**New York.**—“The New York Audubon Society has had a normal increase of members, but no remarkable growth, since the last report. The present membership is 8,345.

“The renewed attempt to repeal the Anti-Spring Duck Shooting law, the introduction of the Foreign Game bill, and several bills of less importance, were met by the usual vigorous action of our Law Committee. Mr. Dutcher; Mr. Chapman, representing the American Museum of Natural History; Dr. Palmer, of the Department of Agriculture, and Dr. Field, of Massachusetts, attended hearings at Albany in behalf of the Society. Their united efforts, together with the coöperation of prominent members of the Society throughout the state, were successful and the law was maintained.

“This year, for the first time, the Society has published an Annual Report; a new edition of the prospectus, and an edition of ten thousand law posters in English and Italian have been issued. Three thousand copies of each of the Educational Leaflets of the National Association were distributed as soon as published. Several thousand postal cards, ‘Feed the Birds in Cold Weather,’ have been purchased from the Providence Humane Society, to be put into circulation this fall. During the year over thirty-seven thousand leaflets and law posters have been distributed. Six thousand leaflets, besides many colored plates of the Educational Series of the National Association, were sent to the state fair at Syracuse. By request, six hundred leaflets were recently sent for distribution at the convention of the

W. C. T. U., at Hudson. The local secretary at Fair Haven, who is also superintendent of W. C. T. U. of Cayuga county, has distributed thousands of leaflets throughout the county. She reports that 'fifteen Unions are doing work; perhaps thirty-five different schools have been giving out literature. I am working in union with the Auburn Humane Club, and we have systematized the work and will try to reach every town in Cayuga county. The increased interest is surprising.'

"The enthusiastic local secretary in Amsterdam has shown great energy in traveling from town to town, calling upon editors and clergymen, and has been very successful in arousing interest and in securing new local secretaries. Many reports of Bird Day exercises were received, but the observance is not obligatory, as it should be. Good news, however, is contained in the new State Syllabus for the schools. In all grades of school work, bird study in some form is introduced. Many teachers are taking up a twenty weeks' course of nature study. Applications are already coming in for leaflets to meet their needs.

"In the coming year, all energies must be directed to encouraging and developing the work already undertaken, along the lines indicated; through established organizations of various kinds to reach throughout each county; to use every effort to strengthen the resources of the Society, that the demands for literature, to be placed where it will be read and studied to the best advantage, may be fully met; and, most important of all, to call forth all the influence the Society can wield to secure a Bird Day Amendment to the Arbor Day Law, that hereafter no public school in the state may fail to observe and enjoy 'Bird-Day.'"—MISS EMMA H. LOCKWOOD, *Secretary*.

**North Carolina.**—"The Audubon Society work in North Carolina the past year has been attended with marked results. The work of cultivating general interest has gone steadily forward, and evidences on every hand point to a healthy and most satisfactory growth of public sentiment. Literature on the value of insect-eating birds and the importance of preserving game-birds and animals from undue killing has been carefully and systematically distilled in all of the ninety-seven counties in the state.

"More than one million five hundred thousand pages of printed information have thus been given to the public. About five hundred books on bird and animal life are in constant use in the circulating libraries of the Society. Digests of the game laws on cloth have been printed and posted in all quarters of North Carolina. Forty-six wardens have been employed to do this work and to look after the enforcement of the laws. These agents of the Society brought ninety-one prosecutions in the state courts, and in eighty-four cases convictions were secured. Fifty-eight of these were for violating game laws, and twenty-six for killing non-game birds.

“One evidence of increase of interest in the Audubon work is the marked increase of fines imposed by magistrates and judges. The Gulls, Terns and Skimmers have increased greatly, despite some severe losses in early July, due to high storm tides. More than 10,000 young birds were raised the past summer, as against about 1,700 four years ago.

“The large Audubon launch ‘Dutcher’ has again proven of great assistance to the faithful warden, N. F. Jennett, and his assistant, who have charge of this interesting work along the stormy coast between Cape Hatteras and Ocracoke Inlet. From many sections of the state come reports of the increase of song- and game-birds as a result of the Audubon activities. The Society pays for more than two hundred subscriptions to BIRD-LORE. The income and expenditure the past year has been something over \$10,000, and the membership is increasing rapidly.”—T. GILBERT PEARSON, *Secretary*.

**North Dakota.**—“The same schedule carried on last year has been followed this year in the work of the State Audubon Society of North Dakota. The Saturday morning bird classes organized among the children, as well as adults, showed a decided increase in attendance. We feel that the stereopticon lectures given in the city during the winter did much toward this increase. Throughout the states these lectures have been given by directors of the State Association and, as a result, there have sprung up a number of local societies, all showing a great amount of interest in the work.

“For a number of years small islands in Stump Lake, situated in the central western part of the state, have been used by birds as a nesting place. In 1903 and 1904, the birds were disturbed so that they deserted the islands. Last year we succeeded in having these islands set aside as a reserve, and the warden reports that the birds returned in great numbers this spring, the Double-crested Cormorant perhaps being the most diffident to return. Very little poaching has been done since the institution of the warden.

“The interest aroused among the children in the work of our Society has seemed to justify a bird chart, with which we will carry on the talks through the winter months. This will be loaned in the state, as are the slides and lantern belonging to the State Association.

“Audubon literature has been distributed and newspaper articles published on the destruction of the White Heron. The results so far observable throughout the state are encouraging and, with increasing membership, we have hopes for strong work in this field.”—MISS ELIZABETH ABBOTT, *Secretary*.

**Ohio.**—“In the past year we have had the pleasure of hearing five out-of-town speakers, besides our own home talent, express their various experiences with birds, and add something to the store of our bird-lore.

“That the Bounty Bill for Hawks was defeated in Ohio, is a matter of congratulation. With the sad experience of Pennsylvania before us, it was easy to prove the fallacy of any argument in favor of a Bounty Bill in our own state, and we rejoice that we were saved from a like blunder. The matter of spring shooting of Doves has not been satisfactorily adjusted; but our excellent committee, we feel assured, will some day see success crown their efforts in such a laudable enterprise. Owing to the vigilance of one of our members, the game warden’s attention was called to the destruction of small birds in certain localities, and there has been a renewal of activity along that line.

“Mr. William Hubbell Fisher, president of our Society, was asked to address the Mothers’ Club at the Madison School, about interesting the children in bird-houses and bird-homes. This is an exceptionally strong organization, both in energy and financially, and we expect great results. As usual, we have sent speakers to the various schools on ‘Forest and Bird Day’ to give especial attention to that part of the program. With our distribution of leaflets and the hope of the organization of bird clubs in every school in the city and suburbs, we hope soon to have so many friends and protectors in every locality as to make it unnecessary to call upon the game warden. There have been several requests for information how to form branch societies in Ohio, and such information has been promptly given to those interested. Every year sees an increase in the roll of membership of our Society. A suggestion has been made that we have the children in the public schools make bird-boxes and place them in the parks. We hope this year will see some definite action along that line.

“Financially we were not a grand success last year, but we have made unusual demands upon the treasury in the hope of having a larger attendance at the meetings. We hope sincerely that the coming year will find a continuance of the good work of the Society and an improvement upon any unsuccessful experiments of the past year.”—MISS M. KATHERINE ROTTERMANN, *Secretary*.

**Oklahoma.**—“This Society was incorporated June 16, 1906; the regular time of meeting is the first Saturday in each month. Two auxiliary Societies have been organized, and plans are being laid for organizing many more. Several hundred pages of literature have been distributed, and there is a strong and growing sentiment in favor of the protection and the study of birds.”—MISS ALMA CARSON, *Recording Secretary*.

**Oregon.**—“In February last the John Burroughs Society voted to discontinue as such and become instead the ‘Oregon Audubon Society,’ with headquarters at Portland. So far our work has been mostly educational. Warning notices, accompanied by the letter of permission of the Post-Master

General, have been sent to all country post-offices in the state, with the request that they be posted; 2,500 Educational Leaflets have been sent to individuals throughout the state; every woman in our city, as far as possible, who wears or would be likely to wear an aigrette, has been furnished with an Educational Leaflet on the subject.

“Our Society, through the late Col. L. L. Hawkins, gave \$100, divided into three prizes, to the boys of the public schools who made bird-nesting boxes best adapted to the needs of the birds; the result was pleasing. Another member of the Society made her annual gift of twenty-five dollars given to the ninth grade of the public schools for the best essay on ‘Our Native Birds.’

“The following is a report of results of last year’s work among the sea-birds of the Oregon coast, and in southern Oregon: The past year has shown marked improvement in bird protection in the state of Oregon. A year ago, Mr. Finley and Mr. Bohlman spent two months in the lake region of southern Oregon investigating conditions among the great colonies of water-birds in that locality. They found that after the years of slaughter among the Grebe colonies, the professional hunters had almost exterminated these beautiful birds in certain localities. But the traffic in Grebe skins for millinery purposes was given an effective blow when the Audubon Society in New York got the Wholesale Milliners’ Association to forbid the sale of Grebe skins. Except perhaps for a few isolated cases, there have been comparatively few Grebes and Terns killed for their skins during the past year. It is difficult to give careful protection to the bird colonies on their breeding grounds owing to the extensive range of the country.

“By far the most important result in the protection of the water-birds of southern Oregon has been brought about during the past season. For years past, these lakes have been used by market hunters who have shipped over a hundred tons of Ducks a season from one place. But since publicity was given the report made by Messrs. Finley and Bohlman, the game wardens have made a determined effort to stop the traffic. Last winter they captured the first wagon-load of Ducks sent out and prosecuted the offenders. They continued keeping close watch and, with the aid of the express company through which the birds were shipped, they succeeded in breaking up the traffic completely during the past season.

“Concerning the great sea-bird colonies along the Oregon coast, as far as can be ascertained, the traffic in Murre’s eggs that was formerly carried on in southern Oregon has been broken up by guarding the San Francisco market where these eggs were shipped. The great breeding colonies on Three Arch Rocks have not been molested.

“One of the worst flaws in caring for the wild birds of our state, and one of the things that it is hoped can soon be remedied, is the lack of pro-

tection of our wild or Band-tailed Pigeon. This should be brought about immediately before this bird of the West follows the Passenger Pigeon of the East and becomes almost extinct. This bird, although one of our best game-birds, has not even the protection of the game laws. Hunters slaughter great numbers of the birds in the midst of the breeding season, when fully developed eggs are still in the bodies, and when the birds have young. In the midst of the breeding season, when the weather is hot, it is a habit of these birds to come from miles and gather about some watering-place to drink. It is a custom among many hunters to lie hidden at such places and shoot the birds as they come and go. Here it is no trick to kill a hundred Pigeons in a short time, and leave perhaps as many young birds to starve in the nest."—DR. EMMA J. WELTY, *Corresponding Secretary*.

**Pennsylvania.**—"The Pennsylvania Audubon Society has suffered an irretrievable loss during the year in the death of its secretary, Mrs. Edward Robins. It has been impossible as yet to arrange for the continuance of the work of the Society, but steps toward this will be taken early in the autumn. Mrs. Robins' illness during the early part of the year prevented any new departures in the activities of the Society, and our work was simply that of enrolling members, distributing literature and answering correspondence relative to bird protection and bird study."—WITMER STONE, *President*.

**Western Pennsylvania.**—"The Western Pennsylvania Audubon Society was organized in March, 1904, and has since made good progress. Its membership this year has increased from 49 to 262 and is chiefly devoted to impressing the younger generation with a sense of the value of bird-life. The giving of Audubon buttons to school children has aroused their interest in the Society's work, because they want to know "Why?" The Society's membership includes police and press officials who are personally interested in its welfare, hence the repression of illegitimate shooting and the full publicity of prosecutions for such offences. The Society publishes suitable literature in prose and poetry, and encloses copies of its selections in communications to outsiders.

"Meetings are held the second Wednesday in each month and are attended mostly by ladies who have the time, means and desire for furthering the bird cause. They denounce bird millinery. This year the Society has caused to be erected a number of Wren and Martin houses, also many cocoon nests. The Society has secured the coöperation of the local gun club in protecting wild birds, and members of the latter occasionally attend the monthly meetings.

"The burgess of Wilkesburg is in sympathy with the movement and grants the Society the free use of the borough police court, now its established headquarters. Mr. C. Leon Brumbaugh, president of the Burroughs



Club of America, is a member and lectures frequently at the meetings. He and other members spend much time in the woods and fields studying birds and arresting or admonishing their destroyers. Over two hundred bird-traps have been found and destroyed by the Society during the present year. Much correspondence with bird enthusiasts in outlying towns and districts is handled, and great effort is being made to secure the interest of our congressmen and members of the legislature to assist in the enacting of laws for the better preservation of song and insectivorous birds in America.”—G. B. MASON, *Secretary*.

**The Burroughs Club of America: Pennsylvania.**—“A growing interest is apparent in bird study and bird protection in Pennsylvania, and this is especially so in western Pennsylvania. Many schools are incorporating the study of wild birds and animals in their courses of study: books on these subjects are included in their supplementary reading and libraries. Young people’s societies are asking for addresses and lectures on birds, and women’s clubs are interesting themselves similarly, the State Federation of Women’s Clubs of Pennsylvania having requested a paper from our secretary, Miss Mary H. Gibson, for their annual session. Farmers are taking an interest in native birds and their protection, largely through the efficient and unselfish labors of our State Economic Zoölogist, Prof. H. A. Surface, whose bulletins on the subject are eagerly sought and whose lectures abound in sympathy.

“Farmers in many communities are banding together and establishing bird preserves in which no shooting or hunting is permitted. The superintendents and managers of coal-mining concerns are, in numerous instances, taking it upon themselves to see that the laws are not violated by the foreigners in their employ. Thus some of the worst conditions we have had to meet were immediately dissipated.

“Schools and manual training classes are, in places, taking up systematic bird-home construction and erection. Bird feeding in winter during the year was widely practiced. The work, as we see it, has just begun, however, for it is to be doubted if any state had worse conditions in the matter of flagrant, persistent and unpunished violations of the law. In many communities scarcely a bird was allowed to live, boys and foreigners working a most cruel and wanton destruction. Since active labor toward strict law enforcement was undertaken, some of these regions report a marked increase in bird life. Conditions are still bad in many places, sufficient volunteers for law enforcement not yet having appeared. Almost every conceivable violation of law is still practiced in remote districts.”—C. LEON BRUMBAUGH, *President*.

Rhode Island.—“Owing to the efficient work of the state Bird Commissioners and their agents, our Society has, during the past year, done but little outside of educational work. Leaflets of various kinds have been distributed, nine copies of BIRD-LORE are sent regularly to local secretaries, bird charts have been presented to some of the country schools, and a traveling lecture and five traveling libraries are in constant use.

“On March 10, the Society obtained a charter. The incorporation proved to be opportune, as it was then learned that a small bequest had already been made to the Society. A membership fee of five dollars is paid annually to the Humane Education Society of this state, in recognition of its work in the public schools in behalf of bird protection.

“On March 31, a luncheon was given in Providence, by the directors, to the secretaries of the twenty branch societies, and the company then adjourned to the annual meeting at Manning Hall, Brown University, where an extremely interesting illustrated lecture was delivered by the Rev. Herbert K. Job, the audience filling the hall.

“The newspapers of the state have always been most friendly to us, many editorials and other interesting articles relating to birds recently appearing in their columns.

“The membership of this Society has increased to 1,108. This steady growth, as well as the never-failing interest of children in our work, should give us hope for the future, although the extraordinary craze for feathers in millinery during the present year is discouraging to all who have the preservation of birds at heart.”—MRS. ANNIE M. GRANT, *Secretary*.

Texas.—“Headquarters of Audubon work and game protection being in Waco, this city is regarded as the council place of all Texans desiring to preserve from slaughter the wild birds and mammals of Texas, a state possessing 265,780 square miles of territory, with a population of three and a half millions and a greater variety of wild creatures than can be found elsewhere in the United States. The Texas Audubon Society, since it regained a foothold in the Lone Star State, about two years ago, has organized 101 branch societies and has succeeded amazingly in arousing public sentiment throughout the vast domain in favor of protection. The work has been accomplished by means of articles contributed to the press, by lantern lectures and by personal attention at as many points as it was possible to cover; by every means known to those who love nature and the wild inhabitants of the fields and the forests. All the daily and weekly papers in the state proved friendly to the cause and were active in coöperative efforts, freely publishing bird contributions, written or edited by the State Audubon bureau and accompanying such publications with strong and able editorials warmly supporting the efforts of our bureau.

“Practically all the birds of America enter Texas during one or the other

of the seasons, and the Audubon movement is changing the state from a vast slaughter field of avian and mammalian life to a grand preserve the like of which probably, when the ideal has been attained, will not be found elsewhere on the face of the globe. One item, and a very important one, too, was the successful effort to prevent the slaughter of Robins, that resort here in millions annually to feed on the rich harvest of winter berries, growing mute and fat, and, until the Audubon Societies called a halt, were slaughtered by thousands for household consumption and for the market. A reformed market hunter told me that it had been his practice to encourage men and boys to make nocturnal visits to Robin roosts, such as thickets and cedar brakes, for the purpose of filling sacks with the bodies of the charming birds, having succeeded in the winter of 1902-3 in supplying 10,000 dozen Robins to the hotels and restaurants of the cities of Texas and adjacent states. By our efforts we have already reduced Robin slaughter 80 per cent, and we intend to stop it altogether during the approaching winter, when the lovely migrants return.

“The Texas Audubon Society has enlisted the women’s clubs, the educators, the newspapers and periodicals and the railway companies in the noble cause of protection, and is now at work disarming the school boys of ‘niggershooters’ and target guns, at the same time teaching, by lantern lectures, newspaper articles and distribution of literature, the evils of destruction, the inexpressible merit of preservation. The literature we have been distributing was derived from the National Association of Audubon Societies and from the United States Department of Agriculture. Probably 5,000 Audubon leaflets and an equal number of department bulletins and reports have, through our agency, been placed in the hands of the appreciative people of Texas, and in due time this mighty state will become equal to any of the sisterhood as to bird and animal protection. Such will be the case when the high standard we aim at has been attained.

“In 1903, prior to the existence of our organization as a state body, the chief workers who belonged to local organizations, and who now constitute the backbone of the state Society, secured the enactment of the Texas Bird and Game Law, with its superb provisions, above all others the section prohibiting marketing of birds and game, and transportation for market by the express and railroad companies, giving us the complete benefit of federal laws and reinforcing the state authorities with the powerful arm of the National government in the suppression of those arch annihilators—the pot-hunters. When the Legislature met in 1904, the market hunters were at Austin, the state capital, with a strong lobby, seeking the repeal, if possible, or at least the adoption of a weakening amendment of the tenth section, which section of the Texas Bird and Game Law prevents, under penalty, marketing and transportation, and, therefore, puts the pot-hunter out of business. The Texas Audubon Society, then only four months in existence,

took the lead and rallied the protectionists. Headquarters were established in the largest hotels at the state capital, in rooms close to those occupied by the pot-hunters' lobby. An active personal canvass was made of both houses. The desks of the state lawmakers were supplied daily with printed arguments. Victory crowned the effort of the protectors. Vanquished, the pot-hunters withdrew. The tenth section and all the other sections of the Texas Bird and Game Law remained intact on the statute books, and there was rejoicing all along the line.

"The Texas Audubon Society started the movement against vagrant cats, an evil of great extent in the municipalities, encouraging the chloroforming of mongrel litters, destined to grow up and become ravenous bird-eaters. The Texas Audubon Society put on foot the movement for establishing interior preserves, wherein all wild life shall be immune from destroying agencies. We have reported violations to the grand juries and to the prosecuting officers of the state, and we have procured about 500 convictions since we took up the work. In the large cities, such as Dallas, Houston, Galveston, Fort Worth, Waco, Austin and San Antonio, we have enlisted the ladies against bird plumes. We have assisted in explorations of the long Texas coast of the Gulf of Mexico, in the interest of Terns, Gulls and the entire list of shore-birds.

"We have protected the water-fowl, the Quail, the Grouse, the Turkey, the Robin, the Dove, and the four-footed game. We called attention to the rapid annihilation of the antelope, deer and other varieties of big game; and when our warden system, supported by a gunner's license, is enacted, which will be the case when the next legislature meets, we shall have accomplished a task which future generations cannot fail to appreciate.

"A feature of our work was the calling of public attention to the value of peccaries as exterminators of rattlesnakes, which increased as the prairie-dogs disappeared, occupying the vacant dog holes. The peccaries were being swept from the face of the earth, and it was believed that they were of no value. We demonstrated that they were a necessary provision of nature, and the relentless slaughter has been checked.

"The Texas Audubon Society ascertained that the Guan, a bird commonly called the Chachalaca, was one of the most valuable exterminators of boll-weevil, and in that respect was nearly equal to the Bull-bat, having the advantage of the Bull-bat in being a scratcher, and able, therefore, to destroy the weevil during their period of hibernation. Texas is the only state in the union in which the Guan, or, to call him by his onomatopœic name, the Chachalaca, makes his habitat, and, until of recent years, no Guans were found fifty miles north of the Rio Grande. We demonstrated that they were as easy to propagate as Pheasants or Guineas, and it is now a fact that cotton fields frequented by Chachalacas are kept free of that deadly pest of cotton, the Mexican boll-weevil. We proved that the Bull-

bat swept the cotton fields, and was, in fact, a winged stomach for the destruction of flying insect life ; that the Bull-bat regarded the cotton boll-weevil as an especial dainty, and that if there were enough Bull-bats the cotton boll-weevil would cease to exist. The Texas Audubon Society can, and will, in the course of time, fulfil its mission.”—M. B. DAVIS, *Secretary*.

**Vermont.**—“The chief work of the Audubon Society for the past year has been educational. Lectures have been given to teachers and school children, junior societies organized, and young people throughout the state interested in bird protection. The junior members, to the number of several hundred, are enthusiastic in putting up bird-houses, feeding winter birds, studying their life histories, reporting offenders against the game laws, and otherwise aiding Audubon interests. Three traveling libraries are in constant circulation among country schools, especially in localities where there is little sentiment for the protection of birds. At the State Summer School for teachers, one of the instructors gave lectures on birds and conducted daily walks, and at some of the grange meetings, talks on birds, in their relation to agriculture, have been given to the farmers.

“In coöperation with the Vermont Bird Club, the Audubon Society is preparing posters printed in several languages and containing the game laws. These are to be placed wherever they are especially needed for the information of the foreigners, who are the worst offenders against these laws. Bird migration lists, which are filled out by members in all parts of the state, and sent to the secretary, will eventually be valuable in revising the state list.

“While none of these activities is in itself large, it is hoped, by means of them all, to exert a far-reaching influence on educational forces, and to build a foundation upon which excellent work for the Audubon Society may be done in the future.”—MISS DELIA I. GRIFFIN, *Secretary*.

**Wisconsin.**—“The Wisconsin Audubon Society has continued its previous lines of work, the principal being the publication of our little magazine ‘By the Wayside’ This enterprise absorbs the greater part of the Society’s funds, but, as it reaches and interests more children than could be reached in any other way, it is considered our most important work. The excellent Educational Leaflets issued by the National Association are distributed to schools and libraries throughout the state, and our slides and lectures are kept in use as frequently as possible: The Society feels that the interest of the general public in birds and bird study has greatly increased, and reports from various parts of the state indicate a greater number of nesting birds than ever before.”—MRS. JESSIE T. THWAITES, *Secretary*.

## LIST OF MEMBERS OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

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Total . . . . \$7,991 90

## REPORT OF TREASURER

For period from October 20, 1905, to October 20, 1906 (inc.)

October 20, 1905. To balance forward . . . . .		\$19 74
1906. To membership dues and contributions as per preceding list	\$7,991 90	
Contributions from Audubon Societies . . . . .	80 00	
Sales of Educational Leaflets and Reports . . . . .	408 25	
Sales of Slides . . . . .	49 00	
Subscriptions of Teachers to BIRD-LORE . . . . .	88 25	
Interest on investments and Trust Company balances . . . . .	156 27	8,773 67
		<hr/>
Total . . . . .		\$8,793 41
Deficit . . . . .		523 54
		<hr/>
		\$9,316 95

## DISBURSEMENTS, 1906

*To Warden Service :*

Wages . . . . .	\$1,885 01	
Launch Supplies and repairs . . . . .	119 97	
Signs on Reservations . . . . .	28 10	
Advertising Reservations and Laws . . . . .	29 80	
Coast Charts . . . . .	1 50	\$2,064 38

*To Legislation :*

Copies of bills introduced . . . . .	40 00	
Traveling expenses . . . . .	54 71	94 71

*To Audubon Societies :*

Appropriation—Iowa . . . . .	75 00	
Appropriation—Texas . . . . .	149 00	
Appropriation—Louisiana . . . . .	50 00	274 00

*To Educational Effort :*

201,000 leaflets and illustrations . . . . .	969 32	
65,000 bird outlines . . . . .	106 00	
Slides and coloring . . . . .	92 90	
1,000 copies of article "Way to Save Wild Fowl" . . . . .	50 00	
Audubon buttons . . . . .	3 80	
Electros—text and illustrations . . . . .	72 63	1,294 65

*To General Expenses :*

10,000 copies Annual Report . . . . .	507 03	
Three clerks' salaries . . . . .	1,338 25	
Rent of office . . . . .	500 04	
Rent of Safe Deposit Box . . . . .	5 00	
BIRD-LORE for members, teachers and free list . . . . .	857 93	
Exchange . . . . .	14 09	
Telephone . . . . .	23 17	
Telegrams . . . . .	18 66	
Express . . . . .	60 42	
Postage stamps . . . . .	630 14	
Newspaper clippings . . . . .	29 46	

Law account . . . . .	77 50	
Seal of Society . . . . .	4 00	
Audit 1905 accounts . . . . .	10 00	
Detective service—Florida . . . . .	8 90	
Two typewriters . . . . .	132 70	
Library and card cases, letter files and shelving . . . . .	133 60	
Office supplies . . . . .	34 30	
Printing, envelopes and stationery . . . . .	670 99	5,056 18
<i>Expenses Southern Branch Office, Greensboro, N. C.</i>		
Postage . . . . .	365 98	
Clerical Work . . . . .	87 02	
Express, telegrams, etc. . . . .	25 03	
Circulars . . . . .	55 00	533 03

\$9,316 95

**THE MRS. BRADLEY FUND**

To amount of subscriptions forward from report of October 20, 1905	\$161 00	
To subscriptions year ending October 20, 1906 . . . . .	1,712 40	\$1,873 40
By purchase of house and lot in Key West, Fla. . . . .	1,300 00	
Repairs to same . . . . .	176 48	
Legal fees . . . . .	17 60	
Fire Insurance . . . . .	5 00	\$1,499 08
Balance in Farmers' Loan and Trust Co. . . . .		374 32

**SPECIAL FUND CONTRIBUTED BY ALBERT WILLCOX**

To balance forward from report of October 20, 1905 . . . . .	\$1,098 40	
To contribution in 1906 . . . . .	2,250 00	
		\$3,348 40
By salary of special agent . . . . .	\$2,000 00	
By traveling expenses of special agent . . . . .	968 52	\$2,968 52
Balance in Farmers' Loan and Trust Company . . . . .		379 88

**ENDOWMENT FUND**

To Life Membership Fees, 1906, 17 members . . . . .	\$1,700 00	
First payment of executor on account of interest in estate of the late Albert Willcox . . . . .		11,072 00
		\$12,772 00
By purchase of \$1,000—4 per cent Gold Mortgage Trust Bond issued by U. S. Mortgage and Trust Company . . . . .	\$1,000 00	
Balance in Farmers' Loan and Trust Company . . . . .		11,772 00

**THE AUDIT COMPANY OF NEW YORK**

43 Cedar Street

HERMON C. BUMPUS, ESQ.,

Chairman of Audit Committee,

The National Association of Audubon Societies,

141 Broadway, New York City.

*Dear Sir:* Agreeably to your request, we have audited the treasurer's cash accounts relating to the several funds of THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES for the year ended October 20, 1906.

The results of this audit are presented, attached hereto, in five exhibits as follows :

## EXHIBIT

- "A" SUMMARY OF CASH ON HAND, OCTOBER 20, 1906.
- "B" ENDOWMENT FUND ACCOUNT FOR THE YEAR ENDED OCTOBER 20, 1906.
- "C" SPECIAL FUND ACCOUNT FOR THE YEAR ENDED OCTOBER 20, 1906.
- "D" BRADLEY FUND ACCOUNT FOR THE YEAR ENDED OCTOBER 20, 1906.
- "E" GENERAL FUND ACCOUNT FOR THE YEAR ENDED OCTOBER 20, 1906.

All vouchers and paid checks in support of the several accounts were examined and found in accordance with the records.

Very truly yours,

THE AUDIT COMPANY OF NEW YORK

E. T. PERRINE, *General Manager.*

New York, October 29, 1906.

### 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,*

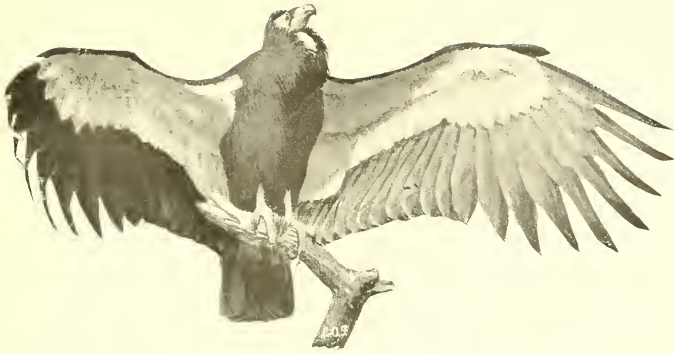
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