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

EDITED BY

FRANK M. CHAPMAN

Official Organ of the Audubon Societies

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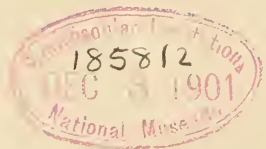
MABEL OSGOOD WRIGHT



VOLUME III—1901

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OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. III

JANUARY—FEBRUARY, 1901

No. 1

Pelican Island Revisited

BY FRANK M. CHAPMAN

With photographs from nature by the author



THE results of observations on the inhabitants of Pelican Island, in the Indian River, Florida, made during four days in March, 1898, have already been recorded* in some detail, and it is proposed to add here only certain supplementary notes, secured April 24, 1900. Being armed with a far more effective battery of cameras, I obtained, on this second visit, photographs of several phases of Pelican life, notably views of the birds on the wing, which it had proved impossible to make on my previous trip to the island.

These pictures, it may be of interest to explain, were taken with a reflecting camera, fitted with a focal-plane shutter, similar to the camera described in BIRD-LORE for April, 1899. While the wing-beats of the Brown Pelican are comparatively slow, former experience showed that a lens shutter was by no means rapid enough to take satisfactory pictures of the birds in flight. With the focal-plane shutter, however, sufficiently fast exposures were made to show the wing at every stage of the stroke and with enough definition to enable one to see clearly the separation of the outer primaries.

Returning to Pelican Island one month later in the year than the date of my 1898 visit, I had expected to find few or no eggs and most of the young of the year with flight feathers appearing or fully developed. There was, however, no apparent difference in the proportionate number of eggs or age of the young birds, and it required a careful census, and an analysis of it, to bring out the fact that the breeding season was somewhat more advanced in 1900, and, I regret to say, that the population of the island had decreased.

* 'Bird Studies with a Camera,' Vol. II, pp. 191-214.



BROWN PELICANS

In 1898 there were 845 nests on the island, of which 251, or 42 per cent, were occupied at the time the count was made. In 1900 only 710 nests had been built, of which 179, or 34 per cent, were found to contain eggs or young, on April 24, as follows:

23	nests	with	1	egg	each
38	"	"	2	eggs	"
26	"	"	3	"	"
43	"	"	1	young	"
42	"	"	2	"	"
7	"	"	3	"	"

A high rate of nest mortality is indicated by the fact that while 26 nests, or 30 per cent, contained three eggs each, only 7, or about 8 per cent, contained three young each, and a similar difference was observed in 1898.

Estimating, as in 1898, that three birds would reach maturity from



BROWN PELICANS



BROWN PELICANS ON GROUND NESTS

each pair of nests, we then have a total of 796 birds which had left the 531 deserted nests. Add to this number the 148 young remaining in the nest and two adults for each of the 710 nests built during the 1900 nesting season, and we have as the population of Pelican Island for that year, 2,364, or a decrease of 372 birds since 1898, when it was estimated that there were 2,736 birds on the island.

Pelican Island contains about four acres of ground, of which less than



BROWN PELICAN AND NEST IN YOUNG CABBAGE PALMETTO

The same nest, with a bird seated on it, is shown in the picture on the opposite page.

NOTE.—The head of this bird, from the eye upward, projected beyond the edge of the plate and was not, therefore, photographed. It has here been supplied by Chas. R. Knight, from sketches from life.

one-quarter is occupied by the birds, most of the nests being grouped in one thickly populated area, which, it was interesting to observe, was without a single nest in 1898. No change in the surrounding conditions was observed, and the reason for this desertion of one part of the island for another was not evident.

There was, too, a marked variation in regard to the character of the nests built on the ground as compared with those on the island in 1898,

and I am glad of an opportunity to modify statements made in the article previously mentioned, to the effect that all ground nests were composed of grasses, while those placed in the mangroves were constructed of sticks. There was, therefore, in 1898, a constant relation between the nature of the nest and its location, showing either consistency in the selection of a site or surprising adaptability in habit.

In 1890, however, a number of ground nests were found to be made of sticks, one evidently erected on another, rising to a height of nearly three feet (see photograph on page 8).



A CORNER OF PELICAN ISLAND

The nest on the young cabbage palmetto in the background, with a bird upon it, is shown in detail on opposite page.

To yield to the temptation to redescribe the wonders of Pelican Island would only result in a repetition of what I have already written. I may, however, state that this second visit fully confirms my opinion that Pelican Island during nesting time is by far the most fascinating place it has ever been my fortune to see in the world of birds. But this estimate of its charms only serves to increase the desire that this colony of remarkable birds may be preserved. The island is very accessible, the Florida law affords Pelicans no protection, and a party of quill-hunters might easily kill practically all the inhabitants of Pelican Island within a

few days. The loss would be irreparable, and, it is to be especially noted, would not be confined to the vicinity, but would affect the whole east coast of Florida, there being, so far as is known, no other breeding colony of Pelicans on the Atlantic coast of the peninsula.

There is doubtless no area of similar extent in the world so well adapted to the wants of certain aquatic birds as Florida; and if today it were inhabited by even one-tenth of the myriads of Herons, Egrets, Spoonbills and other large and conspicuous birds which animated its lakes and marshes thirty years ago, the marvel of its wild life would be known the world around and prove of greater interest to tourists than any existing attraction in the state. If Floridians doubt this valuation of birds which they have been accustomed to regard as worthless, or at so much per plume, let them observe the excitement occasioned among the tourists on a St. John's or Ocklawaha steamer by the now rare appearance of White Herons within a short distance of the boat.




YOUNG BROWN PELICAN IN GROUND NEST
BUILT OF STICKS

The birds have gone, and what has the state received? Proportionately nothing. Here and there a poor hunter, or a curio dealer, has made a few dollars, but most of the killing has been done by, or under the immediate inspiration of, northern dealers, and Florida's loss has been their gain.

There are still scattered colonies of these birds in the less accessible parts of Florida, and if the natives of the state ever open their eyes to the indisputable fact that a living bird is of incalculably greater value to them than a dead one, they may perhaps take some steps to defend their rights, and by passing and enforcing proper laws, put an end to the devastations of the northern plume agents, who have robbed their state of one of its greatest charms.

Elliott Coues on Audubon

EDITOR'S NOTE

HILE the guest of the late Mrs. John Woodhouse Audubon, at Salem, N. Y., in July, 1897, Dr. Coues was afforded an opportunity of seeing Audubon's manuscript journals, letters, drawings and other material, which, with exhaustless patience and perseverance, Miss Maria R. Audubon had gathered from many sources to serve as the basis for the two volumes which form such a fitting tribute to the memory of her grandfather. Dr. Coues, it will be remembered, contributed certain zoölogical and other notes to this work, and we may imagine his pleasure as, with the combined enthusiasm of the ornithologist, bibliophile and annotator, he gave himself to the fascinating task of a minute examination of Audubon's manuscripts.

Four months later, at the fifteenth Congress of the American Ornithologists' Union, which was held in the American Museum of Natural History in New York city, under the title 'Auduboniana and Other Matters of Present Interest,' Dr. Coues spoke of the great value of these manuscripts, and exhibited, through the courtesy of Miss Audubon, the original portfolio in which the then comparatively unknown 'American Woodsman' had carried his drawings of birds about Great Britain and the continent, and also the manuscript of the first volume of the 'Ornithological Biographies.' It was an unusually interesting occasion, and those who were privileged to be present are not likely to forget the keen enjoyment with which Dr. Coues exhibited relics so intimately associated with Audubon's life and works.

A stenographer chancing to be present consented to record Dr. Coues' address, of which the portion relating to Audubon is here printed. Although a verbatim report, it conveys only a faint idea of the impression created by the delivery of the address itself. The attractiveness of the speaker's personality, which never failed to hold the tense interest of his hearers, is lost in this reproduction of his words. We believe, however, that to those who knew him, they will clearly recall the genial but commanding presence of a man whose place in ornithology will never be filled.—F. M. C.

DR. COUES' ADDRESS

"Mr. President, Fellow Members, Ladies and Gentlemen :

"We necessarily live in the present, but, as time passes on, the future grows more and more foreshortened and the past correspondingly lengthens out for each one of us. Those who have reached a certain point are, however, inclined to think more of the lengthening past than the foreshortened future. In other words, we reach a stage of the individual

who, in that stage, if he can refrain from growing garrulous, may perhaps make himself presently interesting.

"In the year 1826 there appeared in England an unknown man. This man was already turned of fifty. We may say that he had more years than the popular date of his birth would assign him to here. He was a man of striking personal appearance; he was a man of most engaging manners; he was a man who, in the short space of five years, leaped from obscurity into imperishable renown:

"How could that be? It happened in this wise: That unknown man who appeared in Great Britain and on the continent in 1826 carried abroad the efforts of a lifetime of ornithological study with him that were placed before the public with the result that the nameless John James Audubon, a person, became an illustrious personage.

"These efforts which I have just mentioned as a lifework were hardly to be carried in any very small compass. But the fruits of his work, which were outside of his own head, he had with him on paper.

"How did he present the originals of those drawings which have never ceased from that day to this to excite our wonder and our admiration? He presented them in a certain portfolio. When he went upon a reconnoissance he was in the habit of taking the portfolio under his arm—I trust that he did not long feel poor; when he became a little richer he probably hired a cab; but by whatever means the portfolio was carried in those days, some younger and weaker members of the ornithological fraternity have transported by their efforts the same into the room this morning, and if the secretary will be kind enough to help me for a moment I will show you the portfolio. This (exhibiting a large brown portfolio, worn and faded) is the original portfolio which John James Audubon carried with him through the continent and Great Britain. [Applause.]

"There are a number of other portfolios and a greater variety of Auduboniana in the possession of the family in Salem, New York; but upon the kind offers of Miss Maria Audubon, descendant of the great ornithologist, I suggested this portfolio. You will observe that it has been much worn and some of the brass corners and metal bindings are lost; but portfolios are not carried empty—not even to a meeting of the Ornithologists' Union; let us open it.

"Audubon's engaging manners and fine personal appearance won him friends everywhere among persons in high places in England and elsewhere on the continent, and while his plates of the birds of North America were being engraved by Mr. Robert Havell, of London, and others, the question of text to these great plates came up. We are all familiar with the print of the first volume; but who ever saw the manuscript in the handwriting of John James Audubon? Audubon, besides

being great, had a certain largeness about him. He liked largeness in a physical, mechanical sense, as he strove for greatness in a moral, intellectual sense. He almost always used folio sheets of this character. This manuscript is almost complete, and quite in its original proportions, although sheets have been given to friends, and the family insisted upon my taking a few for myself; but, ladies and gentlemen, fellow members,



*Sincerely yours,
Elliott Coues.*

(From a group photograph of the members attending the thirteenth congress of the American Ornithologists' Union in Washington, D. C., November, 1895.)

you have before you the original manuscript of Audubon's first ornithological work. [Applause.]

"Here rises an interesting question, a remarkable question: Where did Audubon obtain the technical parts of his work? We know that he was slightly unsuited for this part of his undertaking, for he was an American woodsman; he needed assistance in the technicalities of his

work, and he had many to select from. The person he did select was probably the best man that could be found in the world, and no other than William MacGillivray—a scholar, an ornithologist, an especially good anatomist for the time, and an entertaining writer; a writer that was good and truthful about all. He secured the assistance of William MacGillivray for the technical portions of his work.

"I wonder how many ornithologists then and now know that his cooperation with Audubon was secured after the failure of certain negotiations with a different individual. What would have been the effect had Audubon's first attempt to supply the technicalities of his subject been successful? It makes me tremble to think of it.

"He first applied for such assistance to an excellent ornithologist named William Swainson. He was a good ornithologist, there hardly being a better one for the time. He was one of the most accurate ornithological artists; but he had a wheel in his head; he was a crank on one subject, and any one who has ever read his work knows that he there set this wheel to spinning. He was associated with two others, composing a trinity of cranks in England at that time.

"If he had not succeeded with MacGillivray and had succeeded with Swainson North American ornithology would be—I do not know a word to characterize it if it had fallen into the clutches of these cranks.

"How did we escape this infliction? How did it happen that Audubon's ornithological biographies, in all their technicalities, were not compiled under their system? I will show you how it happened that they were not, for I hold in my hand a copy I have made of Mr. Swainson's letter of declination. He declined to accede to the negotiations then pending, as you will see. The original is in possession at present of the family in Salem. The letter will be printed in the next number of 'The Auk.'*

"This letter is dated the 20th of October, 1830. I do not know that it is necessary to read all of it, but the point of my remarks is to show you that Swainson was applied to, to do the technical part of Audubon's work, before MacGillivray was applied to, and he declined to do so because his name was not to appear upon the title page.

"Among the contents of this portfolio I have a number of pictures, to which I will now call your special attention. Those of us who are familiar with the beautiful products of his pencil and those of us who are not ornithologists may look and see one of Audubon's plates in process of construction. There is an original of Audubon's [holding up the cut-out figure of a bird]. In examining a great quantity of the contents of the portfolio I found that it was a very frequent custom in preparing his bird figures to have one of his sons prepare the background. You can

* 'The Auk,' xv, 1898, pp. 11-13.

see two plates, one by John Woodhouse and one by Victor, while Audubon was to insert into them a cut-bird figure and then send it to the engraver to be printed. John Woodhouse Audubon attained a measure of skill in the drawing of birds. There happens to be in this portfolio two or three pictures by John Woodhouse Audubon, showing the degree of skill to which he attained.

"Having spoken to you in some little length of the portfolio and its contents, I am led next to remark upon the numerous biographies of Audubon which have thus far appeared, bringing me to what might be called the subdivision of my title of which I understand I am scheduled to speak, more of matters of present interest.

"Members of the Union and their friends who were present in Cambridge last year will recollect my laying before them a large quantity of manuscript of John James Audubon and a fully implied promise that the material was about to be utilized in the course of a year. I am happy to inform you the promise has been carried out. Miss Audubon has in press now a biography of her illustrious grandfather more full and, I am sure, more accurate than any other heretofore appearing, with the addition of the journals of Audubon, some of which I have shown you, and the further reprinting of the series of American Life and Manners. The three volumes of the three journals that are now being reprinted in full and the proof of which I have read are the European Journal of 1826, the Labrador Journal of 1833, and the Missouri River Journal of 1843. I think the European Journal will be found most generally interesting.

"From the journals I am led to speak of other Audubonian matters, prominent among which is the extraordinary growth of Audubon societies throughout the country, whose humane object is the preservation of our birds. They are springing up everywhere, and I consider them one of the most remarkable growths of the humanitarian side of ornithology that has ever been witnessed in the history of science."



Three Letters to Audubon's "Kentucky Lads"



N EARLY a century ago, in 1809 and 1812, Audubon's two sons were born; Victor in Louisville, and John in Henderson, Ky., and in speaking of them together he often called them his "Kentucky lads." During their boyhood days the father and sons were separated for long periods of time by the nature of Audubon's work, which work became that of all three, as years went on, and the long months while father and sons were thus apart were bridged over by what, for those days, was a very frequent correspondence.

Unfortunately most of these letters have been lost or destroyed; only a few have fallen into my hands—the three given below, written while Audubon was in Edinburgh bringing out the first number of the 'Birds,' and a few others written to the "Kentucky lads" when they too had crossed the ocean and were making what at that time was called the "grand tour," though it really covered only a very moderate portion of Europe.

The letters here given were penned when Victor, a youth of seventeen, was in the office of an uncle by marriage, Mr. Nicholas Berthoud, in Louisville, and John, three years younger, was with his mother on a plantation in Louisiana, near Bayou Sara. They are simple letters, but show the companionship that existed between Audubon and his boys, and the intense desire the former had that no talent or opportunity should be neglected by those whose welfare he had at heart, and who were so dear to him.—MARIA R. AUDUBON.

FIRST LETTER

EDINBURGH, SCOTLAND,

Saturday, October 28, 1826.

MY DEAR JOHNNY:

I am writing to you from the place where I wish most you could have been educated. It is a most beautiful city, perhaps the most so I have ever seen; its situation is delightful, not far from the sea, running on two parallel hills, ornamented with highly finished monuments, and guarded by perhaps impregnable castles. The streets are all laid at right angles in that portion of it which is called the New Town—are well paved and cleaned, and lighted by gas. I have been here now three days. I came from Manchester in a public coach that carried four inside passengers and ten outside, or rather, on the top, besides a guard and a driver, and all the luggage. I sometimes stayed inside, and sometimes

rode outside to have better views of the country I traveled through; now and then I saw some fine English Pheasants that you would delight in shooting, also some curious small sheep with black heads and feet, the rest white, and some of those pretty little ponies you are so fond of; I wish I could send you one.

Before I left Manchester I visited Matlock, Bakewell and Buxton, all watering places. I drove in a carriage with Mrs. Rathbone and her daughter; the latter purchased and sends you a beautiful little black box of Matlock marble, or spar, and Mrs. Rathbone sends your good mamma an inkstand of the same material. I was very much interested in all the places I saw and wished very much that you, mamma and Victor had been with me to enjoy the journey.

Today I have visited the Royal Palace of Holyrood, was in the rooms of Queen Mary of Scotland, and saw her bed, chairs and tables. I looked at my face in the mirror that once was hers, and I was in the little room where the murder of Rizzio was committed. I also saw the chapel where the Queen was married to Lord Darnley. It was all very curious and very interesting. The apartments where the present king of France resided during his exile were also shown to me, and the fine rooms where George the Fourth was, four years ago, when he visited Scotland.

The women of the poorer class work very hard here, and carry heavy burdens, just as our squaws do in Louisiana, in a large basket behind, and a leather strap coming from it over their foreheads.

I bought for your dear mamma eighteen views of different parts of the city that I will send when I make up another box. In a day or so I will go to Roslyn Castle, and afterwards to Melrose to see the chapel and to call on Sir Walter Scott, the great novelist, some of whose books we have enjoyed together.

I hope you are good and obedient, and are improving in your drawing. Draw as much as you can, and study your music also, as men of talents are welcome all over the world. Two hours daily is little enough for you to give to your violin if you intend to become proficient in the handling of that instrument, and more would be better.

When you write to me tell me of all your occupations and write me a *long* letter. Mr. Bentley, of Manchester, will write to you for birdskins; these you know how to prepare well, and I need not remind you to do your work carefully, and in return Mr. Bentley will send you some books.

I send my love to your mamma; remember me to little Charles, Bourgeat and all, and believe me for ever your most affectionate father and friend,

J. J. AUDUBON.

SECOND LETTER

EDINBURGH, 26 GEORGE STREET,
November 16, 1826.

MY DEAR VICTOR:

I continue to be delighted with this beautiful city; it has a modest and chaste appearance, quite agreeable to the traveller's eye; but the country generally is a barren, poor-looking tract; the mountains are barely covered with earth, and the shepherds the most abject beings I ever saw. None but the rich here seem to enjoy life, and the climate is very rigid. I expect to travel a great deal before long; indeed I am forced to do so, to open the gates for my work, which I hope to make superior to anything of the kind in existence, and this can only be done by unwearying industry and patience. I am overcoming my bashfulness to some extent, and no longer fear to show my drawings. That all may end well, and that I may return to beloved America with some store of wealth and fame, is to be hoped. I shall spare no efforts to reach my ends, I assure you.

I expected long ere this to have had another letter from you; certainly time is not so scarce with you. I do with four hours' sleep, and keep up a great correspondence, copy all my letters myself, even this to you, and my journal keeps apace with all, while the descriptions of my birds are almost ready. My boy, pray read "The Discontented Pendulum," from Dr. Franklin, or some one else (for the world is not certain about the authorship), and see how much can be done if time is not squandered. It would give me much pleasure to receive from you some token of your still thinking about drawing and music, or your natural talent for poetry. Talents will lay dormant in man, if by exercise he does not cultivate them. I have an album that contains many beautiful morceaux from very eminent men, and, as I travel, I gather. Among people of solid understanding outside appearances have no weight, and my looks are, even here, not sneered at. I find myself in company with persons from all parts of the globe, all attired differently, but it is not the coat, but either the mind or the heart that commends man to man.

I sent a fine collection of colored chalks to Johnny. Should you feel inclined to draw—and for your own sake you ought to do so—request him to forward you an exact half. Correct measure and outline, precise tints, and a little life given, make a picture, and keep all your work for future comparison, no matter how indifferent it may be in your own eyes.

During the publication of my work I hope to visit Spain, Italy, Holland, Germany, and of course Switzerland, where I have at Geneva a most powerful friend in the Baron de Sismondi, who introduced me to Baron Humboldt; my letters for Paris, too, are good.

Pray inform me how all about you are, for, thousands of miles away,

all details are agreeable, and were you and John to write to me for one week, I would thank you both. Now may God bless you and keep you well and happy.

Believe that I am and ever will be, your most affectionate father and friend,

J. J. AUDUBON.

THIRD LETTER

EDINBURGH, December 22, 1826.

MY DEAR JOHNNY:

As I read your letter it seems to me that I never felt the want of our forests as much in my life as I do now; could I be but a moment with you, I could return to my work here much refreshed. I hope in your walks you collect acorns of all sorts, and other kinds of seeds, and send them to Mrs. Rathbone, who is pleased to have them.

I think if mamma is willing, you might use my gun if you are careful of it, and keep it particularly clean. I am glad to know you are drawing all you can, for your own sake and mine, and I should much like to see your drawing of the Dove, which your mamma says is the best you have done. Be very careful to measure *exactly*, and if there is any error, begin afresh without delay; perseverance is needed in everything, and in nothing more than drawing, and I hope to see great improvement in your work on my return. Besides drawing birds, draw limbs and branches of all kinds of trees, and flowers, and keep a list of the names of all the birds you see; if you should not know the name by any chance, write a brief description. I wish you to train yourself to make regular memoranda respecting the habits, localities, etc., of birds and quadrupeds. It is most useful, and memory sometimes plays us false.

By this time your mamma will have received the first impression from the beautiful seal Mrs. Rathbone gave me. The seal is beautifully cut and valuable to me on that account, as well as for the sake of the donor. Would that I could hear the call of the Wild Turkey as I have so often done, but, alas! I am too far away.

I began this morning a painting in oil of fourteen Pheasants on the wing, attacked by a fox, that I wish to send to the Royal Academy in London next March, so will need to work hard with all else that must be done, and the days are so short now that I can only paint from about nine until half-past three, and I am often interrupted, but my writing goes on until late in the night. Now I am going to dine with Sir William Jardine at Barry's Hotel.

My love to dearest mamma, and remember me kindly to all around you. Believe me ever your affectionate father and friend,

J. J. AUDUBON.

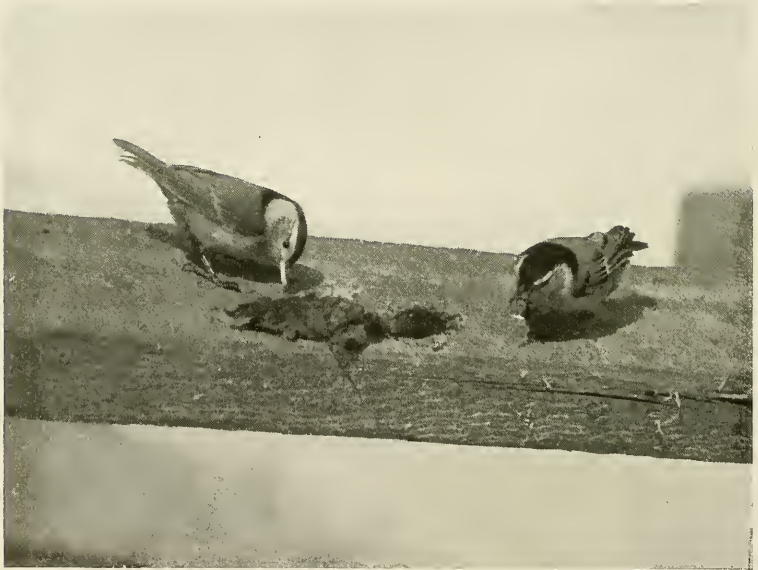
An Adirondack Lunch Counter

BY F. A. VAN SANT, Jay, N. Y.

With photographs from nature by the author

LN the Adirondacks in March, 1900, the snow fell over four feet deep, and wild birds were driven from the deep woods to seek for food near the habitation of man. It occurred to me that a lunch counter with 'meals at all hours' might suit the convenience of some of the visitors to my orchard, so I fixed a plank out in front of the house, nailed pieces of raw and cooked meat to it, sprinkled bread crumbs and seeds around, and awaited results.

The first caller was a Chickadee. He tasted the meat, seemed to enjoy it and went off for his mate. They did not seem in the least afraid when I stood on the veranda and watched them, and after a time paid but little attention to the noises in the house; but only one would eat at a time. The other one seemed to keep watch. I set my camera and secured a picture of one alone. While focusing for the meat one



WHITE-BREASTED NUTHATCHES

Chickadee came and commenced eating in front of the camera, and a second later its mate perched on my hand as I turned the focusing screw.

I saw the Chickadees tear off pieces of meat and suet and hide them in the woodpile. This they did repeatedly, and later in the day would come back and eat them if the lunch counter was empty.

My observation in this respect is confirmed by a lumberman, who noticed that when eating his lunch back in the woods the Chickadees were very friendly and would carry off scraps of meat and hide them, coming back for more time and again.

The next day another pair of Chickadees and a pair of White-breasted Nuthatches came. The Nuthatches had a presumptuous way of taking possession, and came first one and then both together. The Chickadees flew back and forth in an impatient manner, but every time they went near the meat the Nuthatches would fly or hop toward them, uttering what sounded to me like a nasal, French *no, no, no*, and the Chickadees would retire to await their turn when the Nuthatches were away.

The news of the free lunch must have traveled as rapidly in the bird world as gossip in a country town usually does, for before long a beautiful male Hairy Woodpecker made his appearance, and came regularly night and morning for a number of days. Hunger made him bold, and he would allow me to walk to within a few feet of him



HAIRY WOODPECKER

when changing plates in the camera. It was interesting to note his position on the plank. When he was eating, his tail was braced to steady his body. He did not stand on his feet, except when I attracted his attention by tapping on the window, but when eating put his feet out in front of him in a most peculiar manner. This position enabled him to draw his head far back and gave more power to the stroke of his bill, and shows that Woodpeckers are not adapted for board-walking.

Of course the smaller Downy Woodpeckers were around; they always are in the orchard toward spring. I also had a flock of Redpolls come a number of times after a little bare spot of ground began to show, but although they ate seeds I put on the ground, they would not come up on the lunch counter and did not stay very long. Beautiful Pine Grosbeaks came, too, but they preferred picking up the seeds they found under the maple trees. The American Goldfinches, in their Quaker winter dresses, called, but the seeds on some weeds in the garden just peeping above the snow pleased them better than a more elaborate lunch, and saying, "per-chic-o-ree," they would leave.

For Teachers and Students

'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 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 year in which 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, Department of Agriculture, Washington, D. C.
- ARIZONA, Northern.—Dr. E. A. Mearns, Fort Adams, Newport, R. I.
- ARIZONA, Southern.—Herbert Brown, Yuma, Ariz.
- CALIFORNIA.—Charles A. Keeler, Calif. Acad. Sciences, San Francisco, Calif.
- COLORADO.—Prof. W. W. Cooke, State Agricultural College, Fort Collins, Col.
- CONNECTICUT.—J. H. Sage, Portland, Conn.
- DELAWARE.—Witmer Stone, Academy Natural Sciences, Philadelphia, Pa.
- DISTRICT OF COLUMBIA.—Dr. C. W. Richmond, U. S. Nat'l Mus., Washington, D. C.
- FLORIDA.—Frank M. Chapman, American Museum Natural History, New York City.
- FLORIDA, Western.—R. W. Williams, Jr., Tallahassee, Fla.
- GEORGIA.—Dr. Eugene Murphy, Augusta, Ga.
- IDAHO.—Dr. J. C. Merrill, Army Medical Museum, Washington, D. C.
- ILLINOIS, Northern.—B. T. Gault, Glen Ellyn, Ill.
- ILLINOIS, Southern.—Robert Ridgway, U. S. National Museum, Washington, D. C.
- INDIANA.—A. W. Butler, State House, Indianapolis, Ind.
- INDIAN TERRITORY.—Prof. W. W. Cooke, State Agricultural College, Ft. Collins, Col.
- IOWA.—Paul Bartsch, U. S. National Museum, Washington, D. C.
- KANSAS.—Prof. D. E. Lantz, Chapman, Kan.
- LOUISIANA.—Prof. George E. Beyer, Tulane University, New Orleans, La.
- MAINE.—O. W. Knight, Bangor, Me.
- MARYLAND.—F. C. Kirkwood, Box 364, Baltimore, Md.

- MASSACHUSETTS.—William Brewster, Cambridge, Mass.
 MICHIGAN.—Prof. W. B. Barrows, Agricultural College, Mich.
 MINNESOTA.—Dr. T. S. Roberts, 1603 Fourth avenue south, Minneapolis, Minn.
 MISSOURI.—O. Widmann, Old Orchard, Mo.
 MONTANA.—Prof. J. M. Elrod, University of Montana, Missoula, Mont.
 NEBRASKA.—Prof. E. H. Barbour, University of Nebraska, Lincoln, Neb.
 NEVADA.—Dr. A. K. Fisher, Biological Survey, Dep't of Agr., Washington, D. C.
 NEW HAMPSHIRE.—Prof. C. M. Weed, State Agricultural College, Durham, N. H.
 NEW JERSEY, Northern.—Frank M. Chapman, Am. Mus. Nat. History, New York City.
 NEW JERSEY, Southern.—Witmer Stone, Academy Natural Sciences, Philadelphia, Pa.
 NEW MEXICO.—Dr. A. K. Fisher, Biological Survey, Department of Agriculture, Washington, D. C.
 NEW YORK, Eastern.—Dr. A. K. Fisher, Biological Survey, Department of Agriculture, Washington, D. C.
 NEW YORK, Northern.—Egbert Bagg, 191 Genesee street, Utica, N. Y.
 NEW YORK, Western.—E. H. Eaton, Canandaigua, N. Y.
 NEW YORK, Long Island.—William Dutcher, 525 Manhattan ave., New York City.
 NORTH CAROLINA.—Prof. T. J. Pearson, Guilford College, N. C.
 OHIO.—Prof. Lynds Jones, Oberlin College, Oberlin, Ohio.
 OKLAHOMA.—Dr. A. K. Fisher, Biological Survey, Dep't of Agr., Washington, D. C.
 OREGON.—Dr. A. K. Fisher, Biological Survey, Dep't of Agr., Washington, D. C.
 PENNSYLVANIA, Eastern.—Witmer Stone, Acad. Nat. Sciences, Philadelphia, Pa.
 PENNSYLVANIA, Western.—W. Clyde Todd, Carnegie Museum, Pittsburg, Pa.
 RHODE ISLAND.—J. M. Southwick, Museum Natural History, Roger Williams Park, Providence, R. I.
 SOUTH CAROLINA.—Dr. Eugene Murphy, Augusta, Ga.
 TEXAS, Northern.—J. J. Carroll, Waco, Tex.
 TEXAS, Southeastern.—H. P. Attwater, San Antonio, Tex.
 TEXAS, Western.—Dr. E. A. Mearns, Fort Adams, Newport, R. I.
 UTAH.—Prof. Marcus E. Jones, Salt Lake City, Utah.
 VERMONT.—Dr. F. H. Knowlton, U. S. National Museum, Washington, D. C.
 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. Nehrling, Public Museum, Milwaukee, Wis.
 WYOMING.—Dr. Mortimer Jesurun, Douglas, Wyo.

CANADA

- BRITISH COLUMBIA.—John Fannin, Provincial Museum, Victoria, B. C.
 MANITOBA.—Ernest Seton-Thompson, 2 W. 36th street, New York City.
 NEW BRUNSWICK.—Montague Chamberlin, Harvard University, Cambridge, Mass.
 NOVA SCOTIA.—Harry Piers, 'Stanyan,' Northwest Arm, Halifax, N. S.
 ONTARIO, Eastern.—James H. Fleming, 267 Rusholme Road, Toronto, Ont.
 ONTARIO, Western.—T. McIlwraith, Hamilton, 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.

Birds and Seasons

SECOND SERIES

FEBRUARY AND MARCH BIRD-LIFE NEAR BOSTON

BY RALPH HOFFMANN



FEBRUARY seems to be the longest month of the year; so impatient have we become for the first migrant, whose arrival marks for ornithologists the return of spring. Each year, when the February thaw sets in, and the Song Sparrow that has wintered near us in some brush heap begins his somewhat husky song, we remember that there are fortunate people who, even in eastern Massachusetts, have seen Bluebirds in February. Too often, however, the mild weather is followed by heavy snows or bitter winds; it is, therefore, safer to expect no arrivals before the second week of March. Meanwhile some one reports a hardy Bluebird here and another there, and at last our own birds return to the warm hillside orchard. Then winter is over. Often the other birds return fully as early as the Bluebirds, and our first intimation of spring comes from a Bronze Grackle, creaking on his native pine tree, a silent Robin, or a distant flock of Red-wings, rising and falling as they fly. In all the 'back country' Song Sparrows and Flickers act as heralds of spring. To my mind, however, there is something incomplete in the entry of the vernal season unless a male Bluebird in full song is the herald, let whoever will be the pursuivants. No other performs the ceremony so satisfactorily. By the middle of the month the hylas have thawed out, and then come those sunny mornings when the Flicker's shout hardly ceases for a moment; the air is filled with the songs of migrant Bluebirds, passing northward, with the clear whistle of the Meadowlark, and the chorus of Red-wings on the hill-sides. Migrant flocks of Song Sparrows and Snowbirds now appear; all are in high spirits and full of song. Even from the silent Creeper a sharp ear may now catch an occasional wiry, high-pitched song. Unless the season is very backward, we may now look for Rusty Grackles and Fox Sparrows, but the weather influences the arrival of the early birds very decidedly, so that in the dates given below the range between those of early and late seasons is much greater than in May. Sometimes great fields of snow lie to the north, and bitter northwest winds blow for days; again there is unusual warmth and sunshine, and flying insects abound. In such years the hardy Phœbe returns to the old shed or to the bridge, and the vigorous whistle of the Cowbird falls from some restless flock 'flying over.' The Robins, Red-wings and Cowbirds, which we see in March, are almost exclusively males.

BIRDS OF THE SEASON

Permanent residents and winter visitants (see BIRD-LORE, Dec., 1900, p. 183).

March Migrants.—March 6-12, Bluebird; 6-15, Robin; 6-20, Redwinged Blackbird; 8-20, Bronzed Grackle; 10-20, Meadowlark; 13-31, Rusty Blackbird, Fox Sparrow; 20-30, Woodcock; 25-31, Cowbird, Phoebe.

NOTE.—Cowbirds and Phoebe occasionally delay till April.

Early in the month Wild Geese are heard, and Sparrow Hawks return. A few Black Ducks return to their inland breeding places. Ipswich Sparrows may be found on the coast certainly by the end of the month, perhaps earlier. From the 13th to the 31st, there are evidences of a decided increase in the number of Song Sparrows, Flickers, Crows, and Juncos. My notes do not enable me to state whether there is, in March, a similar increase in the number of Golden-crowned Kinglets and Brown Creepers. There certainly is in April. Several other birds that arrive in March in exceptional years will be included in the April list.

Winter Visitants leaving for the North.—March 31, Northern Shrike; Pine Grosbeak (1893).

FEBRUARY AND MARCH BIRD-LIFE NEAR NEW YORK CITY

BY FRANK M. CHAPMAN

The conditions prevailing in the bird world in January continue without change until, in the latter half of February, a warm wave gives indication of returning spring. So instantly do the birds respond to the first intimation of winter's retreat that we can readily imagine their earlier coming has been prevented only by the threatening presence of Boreas himself at the gates of their winter quarters.

Generally speaking, the first birds to appear were the last to go. There is also, as might be expected, a more or less close relation between the northern limit of a bird's winter range and the time of its arrival at a given place, and our earlier migrants, therefore, are birds which have wintered a comparatively short distance to the southward. There is no more regularity in their coming, however, than there is in the weather of the season itself, and the bird student must watch the Weather Bureau's charts if he would expect to foretell the coming of the birds in February and March.

The three species of Blackbird and the Robin, the pioneers of this great northward invasion, are birds which can exist in a snow-covered and ice-bound country, and with them come additions to the ranks of Song Sparrows, Purple Finches and other winter birds. But not until the frost leaves the ground and ice the waters need we look for the Woodcock and Wilson's Snipe, Kingfisher, Ducks, and Geese.

Second in importance only to the advent of the birds themselves is the revival of the season of song. With us the Song Sparrow, not the Bluebird, is spring's true herald, and by March 1 his '*sweet, sweet, sweet, very merry cheer*' is heard from every favoring thicket, a heart-warming bit of bird music. Indeed, all bird songs have a special significance or

association for us at this time. The martial choruses of Red-wings and Grackles, the piping of the Meadowlarks, the clarion of the Wild Geese, the morning and evening Robin concerts are all thrilling to the nature lover, but first place in this band of March musicians must be accorded the Fox Sparrow, whose clear, ringing melody stands out in strong contrast to his bleak surroundings, like a beautiful flower blossoming in the snow.

BIRDS OF THE SEASON

Permanent residents and winter visitants (see BIRD-LORE, Dec., 1900, p. 184.)

February Migrants.—February 15 to March 10, Purple Grackle, Rusty Blackbird, Red-winged Blackbird, Robin.

March Migrants.—Appearing when ice leaves the bays and rivers, Loon, Ducks and Geese; March 1-10 (see February); 10-20, Woodcock, Phoebe, Meadowlark, Cowbird, Fox Sparrow; 20-31, Wilson's Snipe, Kingfisher, Mourning Dove, Swamp Sparrow, White-throated Sparrow.

Winter Visitants leaving for the North.—Horned Lark, Redpoll, Snowflake, Pine Grosbeak, Northern Shrike.

FEBRUARY AND MARCH BIRD-LIFE NEAR PHILADELPHIA

BY WITMER STONE

February and March bring us the first migrants from the south. About the middle of the former month we almost always have one or two of those spring-like days which cause nature to stir in her winter slumber. Then we are likely to see the earliest migrant Robins, Bluebirds and, perhaps, Flickers, while little bunches of Grackles, Redwings and Rusty Blackbirds pass overhead, pushing steadily northward.

The next week the country may be wrapped in snow, and long after we have recorded our pioneers from the south we may be surprised by a flock of Redpolls or other visitors from the north. This alternation of weather causes considerable irregularity in the dates of arrival of migrants during these months, but nearly all the species which occasionally winter either about Philadelphia or southern New Jersey will be observed before April 1. We also hear the Canada Geese go honking northward along the river and find Wilson's Snipe on the meadows, while warm weather at the end of March sometimes brings us Martins and Tree Swallows. One observer must not expect to see all the early birds, however, and he who is located close to the river or on the New Jersey side will be more fortunate than his fellow observer west of the city.

Winter visitants begin to leave us during March, but few of them disappear altogether before April 1, and some few Tree Sparrows remain after that date.

Many species previously silent break forth in song and some of our Winter Sparrows give us a taste of their vocal abilities just before they leave us, while the resident Song Sparrows produce such a volume of melody that many think they have just arrived.

BIRDS OF THE SEASON

Permanent residents and winter visitants (see BIRD-LORE, Dec., 1900, p. 185.)

February Migrants.—Purple Grackle, Red-winged Blackbird, Bluebird, Robin, Flicker.

March Migrants.—March 1-20, Canada Goose, Woodcock, Snipe, Phoebe, Meadow-lark, Cowbird, Fox Sparrow; 20-31, Kingfisher, Mourning Dove, Yellow-bellied Sapsucker,* Field Sparrow, Chipping Sparrow,* Martin,* Tree Swallow.

FEBRUARY AND MARCH BIRD-LIFE AT OBERLIN, OHIO

BY LYNDS JONES

The weather of February is only less variable than March. We have learned to expect our most severe weather during the first ten days of the month, when the temperature frequently drops considerably below zero. Snow is an almost invariable accompaniment of this week or more of cold, but its depth is very rarely as much as a foot. During this time the resident Hawks may be entirely absent, but they return with a change to warmer and are not again driven away. It is then that we expect to find the Snowflake and Rough-legged Hawk. So seldom that it is hardly fair to count, the rarer birds of prey and the Pine Grosbeak and White-winged Crossbill may be driven into the country. Either a little after the middle or during the closing week of the month the weather becomes so much like spring that the snow almost disappears and the first migrants arrive. These first ones are almost always reinforcements to the small company of permanent resident species, as the Song Sparrows, Flickers and Hawks. At this first touch of spring the Prairie Horned Larks and the two small Woodpeckers and White-breasted Nuthatch begin to mate.

March is a winter-summer sandwich, bringing the first waves of the great migration. It is not until March that Crows and Meadowlarks can be depended upon for the daily horizon. The last week in March is not seldom a red-letter week for the bird lover, for then the birds come up from the south in a great host, bringing many which should linger for at least ten days longer. I have recorded the White-throated Sparrow, Field Sparrow, Chipping Sparrow, Swamp Sparrow, Purple Martin, Barn Swallow and Brown Thrasher during this week. To be sure, one must look in the most sheltered places for these less hardy birds, but there they are, on the sunny hillside or in the sheltered nook in the woods. They are but forerunners of their host and hardly count in the final summing up, except as such. Yet a meeting with a bird out of season is the electric shock which spurs the field student on to greater effort.

*Occasional.

BIRDS OF THE SEASON

Permanent residents and winter visitants (see BIRD-LORE, Dec., 1900, p. 186.)

March Migrants.—March 1-10, Killdeer, Red-winged Blackbird, Rusty Blackbird, Meadowlark, Bronzed Grackle, Robin, Bluebird; 10-20, Canada Goose, Mourning Dove, Kingfisher, Cowbird, Fox Sparrow, Towhee, Loggerhead Shrike; 20-30, Great Blue Heron, Phœbe, Vesper Sparrow, Hermit Thrush.

FEBRUARY AND MARCH BIRD-LIFE AT GLEN ELLYN (NEAR CHICAGO), ILLINOIS

BY BENJAMIN T. GAULT

February is, as a rule, our coldest month, while March easily holds the distinction of being the most disagreeable period of all the year.

February, therefore, brings us but few slight changes among the birds, neither detracting from or adding much to our winter list. If anything, they are less numerous then; the Jays scarcely seem as plentiful about our homes, while with the Crows a marked falling off has actually taken place. But, however changeable the weather of March may be, we are more than equally reminded, before the month is half through, that spring is joyfully on its way.

Our first early arrivals, if not for February, have been the Robins and Bluebirds, which, with us, make their appearance almost simultaneously, or, at the best, but a few days apart, though, in the case of the former, they are usually dark-colored males whose voices for the time being are silent. In our fields the Meadowlarks appear to have become a permanent fixture. Tree Sparrows now are more given to song as the season for their departure northward advances.

The middle of March brings us the Song Sparrow and his bright little lay, without which our still barren fields and leafless woods would seem decidedly dreary. The Geese, too, are now flying northward in V-shaped flocks, though others still, more battalion-like, continue to pass back and forth from the cornfields to their nightly roosts on the bosom of Lake Michigan. Red-winged Blackbirds are at their old stands, some old males at least, while, from the 20th to the 25th of the month, Ducks are flying regularly.

The remainder of the month witnesses new arrivals daily, good examples being the Rusty and Bronzed Grackles, Juncos, Fox Sparrows, Golden-crowned Kinglets, Phœbe, Cowbird and Killdeer, each voicing its sentiments in their own peculiar way. Some of the Crows have completed their nests by this time in the red oaks, and here and there an impatient Blue Jay has also commenced building operations.

The month goes out very spring-like. Near sheltered woodland ponds we now listen to the croaking of frogs, and should we arise early enough it is possible for us, perhaps, to enjoy the rather novel experience of listening to the first spring "booming" notes of the male Prairie

Hen, a sound truly suggestive of the season, impressing us at once as odd, and still further remarkable for its penetrating powers.

BIRDS OF THE SEASON

Permanent residents and winter visitants (see BIRD-LORE, Dec., 1900, p. 187).

A list of February and March arrivals at Glen Ellyn, Ills., observed during the past eight years. Extreme dates are given when more than one record has been made.

February Migrants.—February 12 to March 20, Meadowlark; 19, American Cross-bill; 19 to March 27, Bluebird.

March Migrants.—March 2-31, White-rumped Shrike; 3-26, Rusty Blackbird; 3-27, Killdeer; 4-25, Robin; 6-19, Canada Goose; 7, Cedar Waxwing, Redpoll; 7-24, Song Sparrow; 8-28, Purple Finch; 10, Mallard; 12, Mourning Dove; 12-13, Fox Sparrow; 12-24, Red-winged Blackbird; 17-30, Bronzed Grackle; 18, Cowbird; 19, Brown Creeper; 19-22, Pintail; 19-29, Sharp-shinned Hawk; 20-26, Flicker; 21, Herring Gull; 21-27, Phoebe; 22-28, Ruby-crowned Kinglet; 24, Hermit Thrush; 27, Purple Martin; 28, Ring-necked Duck; 28-29, Golden-crowned Kinglet; 30, Golden Plover; 31, Yellow-bellied Sapsucker.

SUGGESTIONS FOR THE SEASON'S STUDY

Review of the Past Winter's Bird-Life.—Review the bird-life of the past winter as shown by your own experience and BIRD-LORE'S Christmas census. Note comparative absence of snow and the consequent presence, north of their usual winter range, of certain species; also absence of certain winter birds. Compare the Christmas bird lists with the object of ascertaining the distribution of our winter birds. What species appear to be most generally distributed?

Birds and Seasons.—Compare the preceding outlines of the characteristics of the bird-life of Boston, New York, etc., and lists of February and March birds, in the preceding articles.

Migration.—What theories have been advanced to account for the return of the birds from warm winter quarters, where food is abundant, to often bleak surroundings, where food is comparatively scarce? Discuss this question (see Cooke, 'Bird Migration in the Mississippi Valley'; Chapman, 'Bird-Life' and references therein given). Note the relation between a species' winter range and its time of arrival at a given point. What is the northern limit of the winter range of the first species to arrive at your locality? Is it probable that the first individuals to arrive are those representatives of the species that wintered farthest north? Would it follow, then, that the last individuals of a species to arrive are those that wintered farthest south? Or is it possible that birds may linger on their northward journey where they find an abundance of food and thus be passed by individuals from further south? The question as to whether our first arrivals are our summer resident birds or transients en route to a more northern breeding ground, has a direct bearing here. What is your opinion in regard to this point? Try and observe closely the movements of a certain flock of birds—Robins, for instance. Does it have a regularly frequented feeding place where you can always find it at a certain time? A regularly frequented roosting place? How long after a species is first noted do you observe individuals of it in localities where it is known to breed? Robins on your lawn, or Red-winged Blackbirds in certain isolated marshes, for instance.

Note the addition to the ranks of our winter birds,—Juncos, Tree Sparrows, and others. This indicates that their migration is under way. Does it follow that our winter resident individuals of these species have already gone?

It is of special interest to know that at this season migration is also beginning in the

south. Certain species that winter in southern Florida are now for the first time seen in northern Florida, and others are crossing from Cuba.

Note the difference in the times of arrival of males and females of the same species. Do the males always arrive first? How long after the females arrive are the sexes found associated? Why should the sexes migrate alone?

Note the relation existing between the weather and the appearance of migrants. Study the daily weather charts issued by the U. S. Weather Bureau at Washington and observe whether the movement of a warm wave from the south northward is followed by a corresponding advance of the birds. Note the close relation between the disappearance of ice and the return of Ducks and Geese. What evidences of migration during the day are noticed?

Song.—What species sing in February and March? What birds arrive in song? What species sing before the coming of the female? What birds sing in flocks? Is their choral song different from their individual, solo song?

Nesting.—What species nest in February and March? Among summer residents do the first birds to arrive nest first? What species are observed courting at this season? Does the season of courtship and mating long precede the nesting season? Compare here the time of arrival and time of nesting of the Red-winged Blackbird.

SUGGESTIONS FOR THE SEASON'S READING

Thoreau, 'Spring,' in 'Walden,' 'Early Spring in Massachusetts,' 'Winter'; Burroughs, 'The Return of the Birds' and 'Spring at the Capital,' in 'Wake Robin,' 'A March Chronicle' in 'Winter Sunshine,' 'Spring Jottings' in 'Riverby'; Torrey, 'A Florida Sketch Book'; Flagg, 'February' in 'A Year With the Birds'; Bolles, 'Land of the Lingering Snow'; Davis, 'After the Snow' and 'The Benison of Spring' in 'Days Afield on Staten Island'; Keeler, 'February in Berkeley' and 'March in the Pine Woods' in 'Bird Notes Afield'; Crockett, 'February' and 'March' in 'A Year-book of Kentucky Woods and Fields'; Parkhurst, 'February' and 'March' in 'The Birds' Calendar.'

The Christmas Bird Census

WHILE the exceptionally fine weather on Christmas day was a sufficient inducement to take one afield, we trust that the spirit of wholesome competition aroused by BIRD-LORE'S bird census added materially to the pleasure of those who took part in it.

The results of the census are both interesting and instructive; interesting, because they are definite, comparative, and, in a sense, personal; instructive, because they give a very good idea of the distribution of winter birds on Christmas day, with some indication of the number of individuals which may be observed in a given time. On the one hand the almost entire absence of such northern species as the Crossbills is noticeable; on the other, the mild season and prevailing absence of snow evidently accounts for the presence of a number of species rarely observed in December.

It has not been possible to publish all the notes which have been received, and it has been necessary to omit the descriptive matter which, in some instances, was given. At another time we hope to suggest a bird census on somewhat more exact lines, through the enumeration, not of the birds observed on a given day, but of those occupying a certain area, when a description of the character of the ground, etc., will be of importance.

SCOTCH LAKE, YORK COUNTY, NEW BRUNSWICK

Time, 9 A. M. to 10 A. M. Clear; wind, west, light; temp., 32°.

Goshawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 2; Pine Grosbeak, 1; Brown Creeper, 2; White-breasted Nuthatch, 20; Chickadee, 6. Total, 9 species, 36 individuals.—WM. H. MOORE.

TORONTO, CANADA

Time, 11.30 A. M. to 4.30 P. M. Clear; wind, northwest, 10 miles per hour; temp., 25°.

Crow, 15; White-breasted Nuthatch, 1; Chickadee, 10; Golden-Crowned Kinglet, 25. Total, 4 species, 41 individuals.—E. FANNIE JONES.

KEENE, N. H.

Time, 10.30 A. M. to 1.30 P. M. Clear; wind, northwest, very light; temp., 32°.

Crow, 1; Northern Shrike, 1; Chickadee, 16. Total, 3 species, 18 individuals.—CLARENCE MORRISON BROOKS.

BELMONT AND CAMBRIDGE, MASS.

Time, 7.30 A. M. to 11.30 A. M. Clear; wind, northwest, very light; temp., 34°.

Fresh Pond, Cambridge.—American Herring Gull, according to W. Deane, there were 250 on the pond at 9.30 A. M. Flocks kept coming in all the morning until, at 11.30, there were 1,375; Black-backed Gull, 2; Black Duck, 90; Mallard, 1; Tree Sparrow, 30; Song Sparrow, 14.

Belmont.—Flicker, 7; Downy Woodpecker, 2; Blue Jay, 10; Crow, 17; American Crossbill, 1; Purple Finch, 2; Junco, 10; Northern Shrike, 1; White-breasted Nuthatch, 4; Golden-crowned Kinglet, 10; Chickadee, 17. Total, 17 species, 1,593 individuals.—RALPH HOFFMANN.

BOSTON, MASS. (ARNOLD ARBORETUM)

December 26, 9.30 to 2.30. Clear, snow-squall, clear; wind, southwest to northwest, light; temp., 37°.

Bob White, 12-15; Flicker, 6, 7; Blue Jay, 15-18; Crow, 16; American Crossbill, 1; Goldfinch, 18; Tree Sparrow, 5, 6; Song Sparrow, 2; Junco, 20-25; Myrtle Warbler, 7; Brown Creeper, 2; White-breasted Nuthatch, 2; Chickadee, 12-15. Total, 13 species, about 125 individuals.

On December 19, in these grounds, there were also Northern Shrike, 1; Golden-crowned Kinglet, 2; White-throated Sparrow, 2; Fox Sparrow, 1.—HORACE W. WRIGHT.

WINCHESTER (NEAR MYSTIC POND), MASS.

Time, 10 A. M. to 1 P. M. Clear; wind, south; temp., 42°.

Herring Gull, 14 or more; Flicker, 1; Blue Jay, 20; Crow, 5; American Goldfinch, 16; Tree Sparrow, 6-8; Song Sparrow, 1; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 5. Total, 10 species, about 70 individuals.—KATHERINE BOLLES.

BRISTOL, CONN.

Time, 9.30 A. M. to 12.30 P. M. Fair; wind, southwest, very light; temp., 7.30 A. M., 28°.

Downy Woodpecker, 1; Blue Jay, 20; Crow, 25; American Goldfinch, 9; Tree Sparrow, 6; Song Sparrow, 4; Chickadee, 3. Total, 7 species, 68 individuals.

December 9 and 23 five Bluebirds were seen. On December 13, Mr. B. A. Peck saw a Towhee.—FRANK BRUEN and R. W. FORD.

NORWALK, CONN.

Time, between 8 A. M. and 4.45 P. M. Clear; wind, west, light; temp., 1 P. M., 60°. American Herring Gull, 8; Crow, 3; Tree Sparrow, 11; White-breasted Nuthatch, 18; Chickadee, 5. Total, 5 species, 45 individuals.—GEO. P. ELLS.

AUBURN TO OWASCO LAKE, N. Y.

Time, 8 A. M. to —. Clear, light snow at 10 A. M.; wind, south to northwest, light; temp., 40°.

Horned Grebe, 5, one calls; Loon, 3, calls; Herring Gull, 3; American Golden-eye, 11; Ruffed Grouse, 2; Crow, 26; American Goldfinch, 4; White-breasted Nuthatch, 2; Chickadee, 12. Total, 9 species, 68 individuals.—FREDERICK J. STUPP.

CENTRAL PARK, NEW YORK CITY

Time, 10 A. M. to —. Clear; wind, southwest, light.

American Herring Gull, 12; Downy Woodpecker, 1; Starling, 4 (singing); White-throated Sparrow, abundant (twice heard singing); Song Sparrow, 2; Robin, 1.—CHARLES H. ROGERS.

ENGLEWOOD, N. J.

Time, 8.30 A. M. to 12.30 P. M. Clear; wind, southwest, light; temp., 33°.

Bob-White, 3; Mourning Dove,* 7; Red-shouldered Hawk, 1; Barred Owl, 1; Downy Woodpecker, 5; Flicker, 3; Crow, 25; Blue Jay, 8; Goldfinch, 1; Tree Sparrow, 150; Field Sparrow,* 2; Junco, 37; Song Sparrow, 3; Northern Shrike, 1 (immature); Myrtle Warbler, 55; White-breasted Nuthatch, 2; Chickadee, 12; Bluebird 4 (one singing). Total, 18 species, 320 individuals. On December 1, and again on the 20th, a single Tufted Titmouse was seen; these observations constituting the first winter records for this species.—FRANK M. CHAPMAN.

MOORESTOWN, N. J.

Time, between 10.30 A. M. and 4.30 P. M. Clear in the morning; cloudy, with light showers, in the afternoon; wind, west, light; temp., 36°.

Red-tailed Hawk, 1; Sparrow Hawk, 3 or 4; Downy Woodpecker, 1; Flicker, 4 or 5; Crow, several hundred; Meadowlark, 8-10; White-throated Sparrow, 3 or 4; Tree

* Illustrating the late stay of certain species in open seasons. (See BIRD LORE, December, 1900, p. 183.)

Sparrow, 1 or 2; Junco, about 12; Song Sparrow, 2; Cardinal, 4; Northern Shrike, 1; Brown Creeper, 2; Tufted Titmouse, 2; Chickadee, 2; Golden-crowned Kinglet, 2 or 3; Bluebird, 3. Total, 17 species.—ANNA A. MICKLE.

NEWFIELD, N. J.

Time, 9 A. M. to 12.30 P. M. Cloudy, clearing at 10 A. M.; wind, northwest, light; temp., 35°.

Bob-White, 1; Downy Woodpecker (heard); Yellow-bellied Sapsucker, 2; Crow, 1; Blue Jay, 2; American Goldfinch, 5; Tree Sparrow, 25; Junco, 25; Song Sparrow, 2; Golden-crowned Kinglet (heard).—MARY R. PASCHALL.

NESHAMINY CREEK AND UPPER DELAWARE RIVER ABOVE PHILADELPHIA

Time, four hours.

Sparrow Hawk, 1; Downy Woodpecker, 1; Crow, immense flocks; Fish Crow, flocks; Tree Sparrow, 25; Song Sparrow, 3; Golden-crowned Kinglet, 1; Chickadee, 1; Bluebird, 4.—H. W. FOWLER.

DELAWARE RIVER MEADOWS, TINICUM TOWNSHIP, DELAWARE CO., PA.

Time, one and a half hours in the morning.

American Herring Gull, 2; Red-tailed Hawk, 6; Red-shouldered Hawk, 1; Crow, 100; Meadowlark, 4; American Goldfinch, 25; Junco, 6; Tree Sparrow, 50; Song Sparrow, 6; Swamp Sparrow, 1. Total, 10 species, 201 individuals.—WITMER STONE.

GERMANTOWN, PA.

Time, 11.30 A. M. to 1 P. M. Clear; temp., 50°.

Downy Woodpecker, 2; Crow, 4; White-throated Sparrow, abundant; Junco, 7 or 8; Song Sparrow, abundant; Cardinal, 2; Winter Wren, 1; White-breasted Nuthatch, 2; Golden-crowned Kinglet, 3 or 4; Robin, 2.

On December 23, a number of American Crossbills were seen.—C. B. THOMPSON and H. JUSTICE.

WYNCOTE, PA.

Time, 8.20 A. M. to 11.30 A. M. Clear; wind, west, but very light; temp., 30°.

Red-tailed Hawk, 3; Red-shouldered Hawk, 1; Sparrow Hawk, 4; Hairy Woodpecker, 1; Downy Woodpecker, 1; Flicker, 1; Crow, about 1,000; American Goldfinch, 3; Tree Sparrow, one flock of 25; Junco, about 100; Song Sparrow, 1; Winter Wren, 1. Total, 11 species, about 1,140 individuals.—SAMUEL H. BARKER.

FAIRMOUNT PARK, PHILADELPHIA

Time, one-half an hour.

Flicker, 3; Crow, 12; Junco, 25; White-throated Sparrow, 6; Tree Sparrow, 25; Song Sparrow, 2; Cardinal, 6; Robin, 6. Total, 8 species, 85 individuals.—DR. J. F. PRENDERGAST.

OBERLIN, OHIO

Time, 6.30 A. M. to 10 A. M. Cloudy, occasional snowflakes, increasing to considerable storm at noon; wind, west by south, light to brisk; temp., 28°.

Red-shouldered Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 6; Flicker, 2; Blue Jay, 6; Crow, 4; Purple Finch, 14; Junco, 3; Tree Sparrow, 40; Song Sparrow, 2; Cardinal, 1; White-breasted Nuthatch, 14; Chickadee, 8. Total, 14 species, 103 individuals.

December 24, Bluebirds and Bronzed Grackles sang in my yard, and a Tufted Titmouse was seen just out of town.—LYNDS JONES.

GLEN ELLYN, ILLINOIS

Time, 10 A. M. to 12 M., 1.30 to 4 P. M. Cloudy; wind west, fresh; temp., 12 M., 17 $\frac{1}{2}$ °.

Prairie Hen, 8 (one covey); Downy Woodpecker, 2; Blue Jay, 7; Crow, 17; Tree Sparrow, 1; White-breasted Nuthatch, 1; Chickadee, 19. Total, 7 species, 55 individuals.—B. T. GAULT.

NORTH FREEDOM, SAUK CO., WIS.

Time, 8.50 A. M. to 11.10 A. M. Cloudy, some snow; wind, northwest, medium; temp., 16°.

Bob-White, 15; Hairy Woodpecker, 7; Downy Woodpecker, 1; Red-bellied Woodpecker, 1; Blue Jay, 1; American Goldfinch, 31; Tree Sparrow, 30; Junco, 1; Brown Creeper, 2; White-breasted Nuthatch, 4; Chickadee, 11; Golden-crowned Kinglet, 1. Total, 12 species, 105 individuals.

Had the day been favorable, Crows, Evening Grosbeaks, and Ruffed Grouse would have been seen in considerable numbers.—ALICK WETMORE.

LA GRANGE, MO.

Time, 9 A. M. to 12 M. Cloudy, sun seen at times; wind, west, steady; temp., 25°.

Hairy Woodpecker, 5; Downy Woodpecker, 6; Red-bellied Woodpecker, 4; Flicker, 1; Blue Jay, 14; Crow, 15; Purple Finch, 15; Tree Sparrow, 1; Junco, 75; Cardinal, 9; Northern Shrike, 1; Tufted Titmouse, 18; Chickadee, 30; White-breasted Nuthatch, 7. Total, 14 species, 186 individuals.—SUSAN M. JOHNSON.

BALDWIN, LA.

Observed from the house during five hours. Clear; wind, west, light; temp., 9 A. M., 42°.

Killdeer, 2; Turkey Buzzard, 2; Blue Jay, 6; Grackle, 200; Red-winged Blackbird, 500; Carolina Wren, 1; Mockingbird, 3; Carolina Chickadee heard. Total, 8 species, 715 individuals.—MRS. L. G. BALDWIN.

PUEBLO, COLO.

Time, 11 A. M. to 1.30 P. M. Clear; wind, southeast, light; temp., 34°.

Ferruginous Rough-leg, 2; Red-shafted Flicker, 4; Desert Horned Lark, thousands, in many large, scattered flocks; American Magpie, 1; Woodhouse's Jay, 3; Red-winged Blackbird, one flock of about 20; House Finch, about 50; Western Tree Sparrow, about 100; Pink-sided Junco, about 75; Arctic Towhee, 2; Cañon Towhee, 1; Northern Shrike, 1, carrying Horned Lark; Gray Titmouse, 2.—H. W. NASH.

PACIFIC GROVE, MONTEREY CO., CAL.

(*Water birds not included*)

Time, 10 A. M. to 12 M. Wind, north, light; temp., 60°.

California Quail, small flock; Band-tailed pigeon, large flock, 200; Western Red-tail, 1; Burrowing Owl, 1; California Woodpecker, 3; Lewis' Woodpecker, 1; Red-shafted Flicker, 20; Dusky Poor-will, 1; Anna's Hummingbird, 3 (sings); Say's Phoebe, 1; Black Phoebe, 4; Coast Jay, 10 (sings); California Jay, many; American Crow, 1; Western Meadowlark, 1; Brewer's Blackbird, 10; Nuttall's Sparrow, 6; Golden-crowned

Sparrow, 5 (sings); Point Pinos Junco, 25; Townsend's Sparrow, 3; Spurred Towhee, 1; California Shrike, 1; Hutton's Vireo, 8; Audubon's Warbler, 10; Townsend's Warbler, 6; Pipit, common; Red-breasted Nuthatch, 2; Pygmy Nuthatch, 2; Barlow's Chickadee, 10; Intermediate Wren-tit, 2 (sings); California Bush-tit, flock of 15; Ruby-crowned Kinglet, 8; Dwarf Hermit Thrush, 3; Western Robin, 110; Varied Thrush, 2; Western Bluebird, several. Total, 36 species, about 475 individuals.—WALTER K. FISHER.

An Additional December Record

On December 13, 1900, I noticed a Wood Pewee trying to find a breakfast among the apple trees on Glen Island. He was alone, and although active in his search—apparently taking insect eggs from the bark like a Chickadee—he had very little to say for himself, a single short chirp being his only note. It was bitter cold outdoors and there is very little shelter for the little fellow here. How he finds enough food adapted to his mode of hunting is a puzzle.—L. M. McCORMICK, *Glen Island, New Rochelle, N. Y.*



What Bird is this?

Field Description.—Length, 5.00 in. Upper parts streaked with black, buff and grayish; under parts white, streaked with black; yellow at the base of wings and tail, showing in flight. *Spring Range*—From Gulf States northward.

NOTE—Each number of BIRD-LORE will contain a photograph, from specimens in the American Museum of Natural History, of some widely distributed, but, in the eastern United States, at least, little-known bird, the name of which will be withheld until the succeeding number of the magazine, it being believed that this method of arousing the student's curiosity will result in impressing the bird's characters on his mind far more strongly than if its name were given with its picture.

The species figured in December is the Lapland Longspur.



AN INCUBATING BALD EAGLE
Photographed from life by C. William Beebe

Notes from the New York Zoological Society

I. ENTERPRISING EAGLES

At the beginning of winter I placed a pair of adult Bald Eagles in the large flying cage of the New York Zoölogical Park, and they showed their appreciation of their semi-freedom by commencing housekeeping at once. They collected a quantity of sticks and grass around a small hollow in the ground near the center of the cage, and after lining the cavity with moss, the nest was considered finished. Both birds took part in its construction, and from the continual chuckling and screaming, thoroughly enjoyed their work. Eagles usually nest in trees, and these birds placed the nesting material around the roots of several saplings, the stems of which, protruding through the sticks and moss, look not unlike the top branches of a tall tree. Naturally the next thing to be thought of was eggs, but this pair of birds had original ideas, and intended, for a time at least, merely to play at housekeeping. A good-sized stone was brought from another part of the cage and placed in the nest, and the

work of hatching began. The male and female Eagles sit on the nest on alternate days, and the bird not so engaged is always perched on a log near by, on guard.

The temperament of the birds has undergone a complete change. When first placed in the cage they were easily caught and seldom offered resistance. Now one cannot approach to within twenty feet of the nest without being attacked by one or both Eagles. When they rush forward, one on each side, and strike with beak and uplifted feet, it is no easy matter to escape unharmed, as I found when trying to photograph them, their talons reaching the skin every time, clothing and shoes affording little or no protection.

What the outcome of this nesting attempt will be I do not know, but I hope the birds will soon lose faith in the stone and deposit two or three eggs. The fact that they are from Florida doubtless accounts for this early attempt at nesting. — C. WILLIAM BEEBE, *Assistant Curator of Birds.*

Book News and Reviews

THE SEQUENCE OF PLUMAGES AND MOULTS OF THE PASSERINE BIRDS OF NEW YORK. By JONATHAN DWIGHT, JR. *Annals of the New York Academy of Sciences*. Vol. XIII, Part I, pp. 73-345; pl. vii. Oct. 19, 1900.

Although birds are doubtless better known than the members of any other order of animals, the laws governing the loss and renewal of feathers, the bird's unique character, are in this paper adequately treated for the first time. That we have so long existed in comparative ignorance of the manner of molting of many of our commonest birds is due primarily to the lack of proper material with which to study their plumage changes. Collectors desired only perfectly feathered specimens and made no efforts to secure birds during the period of molt. Nor did they attempt to ascertain, by an examination of the cranium, the age of the specimen preserved.

Appreciating the need of proper material to enable us to clearly understand this exceedingly important function in a bird's economy, Dr. Dwight began some twenty years ago to form a collection of New York birds on which to base the studies which are in part presented in the present paper* of over 250 pages.

The work is far too extended for us to review it in detail; furthermore, we hope later that Dr. Dwight will himself favor BIRD-LORE's readers with an extended résumé of his studies. We append, therefore, only a list of the eight leading heads under which the subject has been treated: 1. 'Indoor Study of Molt.' 2. 'Process of Molt.' 3. 'Early Plumages and Moults of Young Birds.' 4. 'Sequence of Plumages and Moults.' 5. 'Color Facts, vs. Color Theories.' 6. 'Outdoor Study of Molt.' 7. 'Plu-

*For additional papers by Dr. Dwight on the molt of birds, see the following: 'The Molt of the North American Tetraonidæ (Quails, Partridges, Grouse);' 'The Auk,' 1900, pp. 34-51, 143-166; 'The Molt of the North American Shore Birds (Limicolæ),' *ibid.*, pp. 368-385; 'The Sequence of Moults and Plumages of the Laridæ (Gulls and Terns),' *ibid.*, 1901, pp. 49-63.

mages and Moults of New York Species.' 8. 'Bibliography.'

To this brief table of contents we may add our estimate that Dr. Dwight's work is the most important contribution to American ornithology since the publication of Dr. Coues' 'Key' in 1884. It should be in the possession of every earnest student of birds.—F. M. C.

ANIMAL LIFE. A first book in Zoölogy. By DAVID STARR JORDAN and VERNON L. KELLOGG. New York. D. Appleton & Co. 12mo, page ix+329. Numerous illustrations.

This is a text-book which adequately presents the most advanced and approved ideas in the teaching of zoölogy to the general student. The matter of classification which, until recently, has been the leading if not the only theme of class-room manuals, is here accorded only four pages at the end of the volume, and the study of animal life is approached subjectively under such suggestive headings as 'The Life Cycle,' 'Function and Structure,' 'Adaptations,' 'Parasitism and Degeneration,' 'Protective Resemblances and Mimicry,' 'Instinct and Reason,' 'Homes and Domestic Habits,' 'Geographical Distribution of Animals,' etc. As a result of a study of these fundamental factors in the life and the interrelations of animals, the student is not repelled by the terminology of classification, but inevitably must be attracted by the marvelous story of life and impressed by man's kinship with the animals below him. It is, therefore, not alone a book for the student, but also for the general reader.

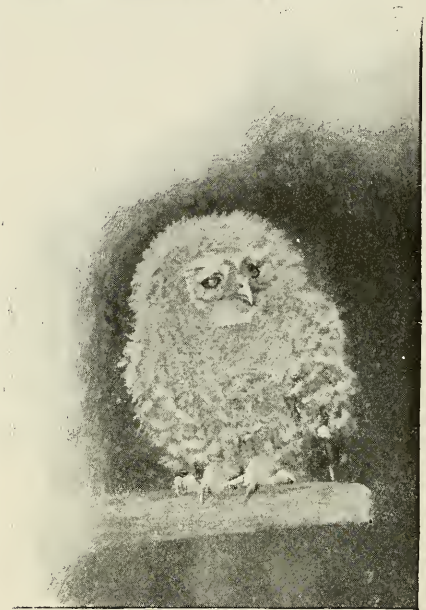
In the philosophic treatment of so wide a range of topics the authors must necessarily consider many phenomena in the explanation of which authorities still differ, and we could wish, therefore, that in place of a certain positiveness of tone they had seen fit to give more than one view of various disputed cases, if for no other reason than with an object of pointing out lines for further research. For example, the migration of birds is alluded

to as "a systematic changing of environment when conditions are unfavorable to life," a statement assuredly at variance with the bird's desertion of a southern winter home at a season when food is daily increasing for a comparatively barren breeding resort. Again "the effort of the Sparrow to keep warm in winter" is presented as an illustration of one of the primary factors in the struggle for existence, whereas it is believed by many that, given an abundance of proper food, with birds, at least, temperature is of comparatively little importance. The definiteness with which the duration of life of various animals is stated is, perhaps, hardly warranted by the known facts; while theories in explanation of the significance of so-called recognition, signaling, warning, alluring, etc., colors are still too numerous to render advisable the treatment here accorded them. In this connection we regret to see that Mr. Abbott H. Thayer's very beautiful demonstration ('The Auk,' 1896, p. 125) of the law which underlies protective coloration, a discovery revolutionizing our ideas of what constitutes protective coloration, is not mentioned.

The illustrations are numerous and instructive, many being reproductions of photographs from nature. We would, however, call the attention of the authors to two or three slips requiring correction: thus the "Arctic Black Duck" figured on page 137 with twelve young is evidently one of the Scaups (*Aythya*), which are not known to lay more than ten eggs; the "Canada Jays" on page 138 are clearly Blue Jays and, unless we are mistaken, the artist is indebted to Mr. Dugmore's clever photograph of the young of this species, in Scott's 'Bird Studies' (p. 57); the intertwined horns on p. 148 are those of deer and not of "elk," as stated, and the male Baltimore Oriole, on p. 267, is shown in the act of nest-building, though, as far as we know, the male has not been observed to assist in constructing the nest.

'Animal Life' is such an admirable piece of work that our desire to aid its authors in eradicating the errors which are bound to creep in a book covering so wide a field, has perhaps led us to appear unduly critical, whereas, in truth, we cannot too highly

commend it as an ideal text-book, which, we trust, will speedily replace the antiquated zoölogies that have so long blocked the student's pathway to knowledge.—F. M. C.



WHO SAID MICE?
(From 'Our Bird Friends')

OUR BIRD FRIENDS; A BOOK FOR ALL BOYS AND GIRLS. BY RICHARD KEARTON. With 100 original illustrations from photographs by C. KEARTON. Cassell & Co. Ltd. London, Paris, New York and Melbourne, 1900. 12mo, pp. xvi + 215.

With the eminently worthy object of stimulating and properly directing children's inherent interest in birds, Mr. Kearnton has written a book which seems admirably adapted to accomplish not alone the end in view, but to appeal with equal force to grown folk as well.

We have here no rehash of old material or compilation of selected stories for the young, but an original contribution to the literature of ornithology based largely on the author's personal experiences.

The book is not local, and while the birds treated are British species, the subjective method of presentation renders it almost as attractive to American as to English readers. Thus the chapters on 'Nests

and Eggs,' 'Young: How they are Fed and Protected,' 'Feathers and Flight,' and 'Calls and Song Notes,' may be read with profit by the ornithologists of every land.

Mr. Cherry Kearton's pictures add to our appreciation of his skill and patience with the camera, and further illustrate the advantages of photography over any other known method of portraying bird-life. It does not seem to us, however, that they have all been reproduced with full justice to the original, and we especially deplore the loss of accuracy in a bird's outline which often accompanies the etching or cutting out of the backgrounds.—F. M. C.

LAWS REGULATING THE TRANSPORTATION AND SALE OF GAME. By T. S. PALMER and H. W. OLDS. Bulletin No. 14. Division of Biological Survey; U. S. Department of Agriculture, Washington, Government Printing Office, 1900. 8vo, pp. 89, 5 maps, 4 diagrams.

Further evidence of the benefits to the cause of bird protection which have followed making the Biological Survey responsible for the enforcement of the provisions of the Lacey bill, are shown in the publication of this pamphlet. It has been prepared with the especial object of informing shippers, transportation companies, and game dealers of the laws regulating the transportation and sale of game and, possessing the authoritativeness of a government document, it is far more valuable for reference than an unofficial publication.—F. M. C.

The Ornithological Magazines

THE AUK.—'The Auk' enters the new century in much the same garb it has worn during twenty-six years of the old, being modeled on the same lines that have proved so successful in the past. Nearly one quarter of the 131 pages of the January number are devoted to reports on bird protection by Mr. Witmer Stone and Mr. William Dutcher, and afford unusually instructive reading. Much good will result from intelligent legislation, and Mr. Dutcher shows how effectively the persecuted Gulls and Terns have been protected the last summer on the Atlantic coast, from Maine to Virginia, by securing the paid services of persons living on or near their breeding

grounds. The molts and plumages of these birds are explained by Dr. Jonathan Dwight, Jr. The opening pages are filled with obituary notices of Dr. Elliott Coues and Mr. George B. Sennett, from the pens of Mr. D. G. Elliot and Dr. J. A. Allen, respectively. One of the most remarkable things about Dr. Coues was the wide reach of his scientific knowledge, which made him in the truest sense of the word a great ornithologist. Some new birds from Panama are described by Mr. Ontram Bangs and others; from Mexico, by Mr. E. W. Nelson, in a couple of brief papers, and a local list, by Mr. James H. Flemming, on the birds of Parry Sound and Muskoka, Ontario, fills thirteen pages. In Mr. John H. Sage's report of the Eighteenth Congress of the A. O. U., we learn officially of a radical change in membership that will take effect at the next Congress. The species "Associate Member" is to be split into two, but which is the subspecies I am still in doubt. Some one has facetiously dubbed one the "killers," and the other the "see-ers," and everybody ought now to be completely satisfied at this new experiment in trinomialism. The reviews of new literature are extensive, especially one on Dwight's molts of passerine species, and one on Grinnell's birds of Alaska. There is also a goodly array of general notes, covering captures and records too numerous to mention.—J. D., JR.

Book News

We learn from Dana Estes & Co., publishers of Coues' 'Key,' that the revised edition of this work, the manuscript of which Dr. Coues completed shortly before his death, will be ready sometime during the coming spring. It will be profusely illustrated, chiefly by Louis A. Fuertes, and will be issued in two volumes, at the price of \$10.

The report of the A. O. U. bird protection committee including Mr. Dutcher's report on the expenditure of the Thayer fund, which occupies thirty-seven pages in the January 'Auk,' has been issued separately and may be procured from William Dutcher, 525 Manhattan Ave., New York city, at five cents a copy, or four dollars per hundred.

Bird-Lore

A Bi-monthly Magazine
Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

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

A Question of the Day

There is a certain type of systematic ornithologist to whom ornithology means comparing specimens and solving nomenclatural problems, with the sole and ultimate object of changing the existing names of birds and creating new ones. He is sometimes sneeringly designated by the sufficient-unto-himself layman, a 'closet naturalist.'

This same supercilious critic is doubtless indebted to the closet naturalist's text-books for most, if not all, of his exact knowledge of birds' names and consequent proper classification of whatever he may have learned of the birds themselves, but with a fine combination of conceit, ignorance, and ingratitude, he loses no opportunity to hurl a figurative stone at the unconscious author of his information.

There is, however, another side to this subject; in his endeavor to make plain the relationships of birds, the systematist may go too far. Long familiarity with specimens has so sharpened his appreciation of their differences in size, form, and color, that he is led to attach undue importance to variations which are barely, if at all, apparent to the untrained eye. The question is,

where shall he draw the line in naming these geographical races, or subspecies, as they are termed? It is of course assumed that his investigations are conducted with no undue desire for renown through the exploitation of his own name appended to that of the birds he may describe, but that they are made in the interests of ornithology. The question may be repeated then, how far may we go in this division and subdivision of geographical races and best serve the ends of the study of birds?

In publishing a list of North American birds which should harmonize the views of various authorities, the American Ornithologists' Union raised as its standard the motto: "Zoölogical nomenclature is a means, not an end, of zoölogical science." That is, before we can study birds we must give to them certain names in order that we may properly label whatever we may learn concerning them and thus render our discoveries available to others.

It is, or should be, therefore, the object of the systematist to so describe birds that they will be recognizable, thereby preparing the way for further investigation. When, however, he gives names to differences so slight that even experts in his own field cannot with certainty apply the right name to the right bird, it is obvious that he is not serving, but defeating the aims of science.

Doubtless the 'splitter,' as this type of systematist is called, would deny that his hypersensitive powers of discrimination had led him to such extremes. Let us, therefore, examine somewhat into his methods.

When specimens of our birds first came into the hands of European naturalists, many of them were considered identical with certain European species; but as they increased in collections their characters became more definitely understood and being found to differ more or less from Old World forms they were given names of their own (e. g., *Certhio familiaris Americana*, *Losia curvirostra Americana*). Though at first these birds, following the customs of the times, were ranked as species, this was virtually the beginning in the subspecific separation of our birds.

It was not until the Pacific railroad

surveys in 1850 brought considerable collections of birds from the western United States, that we learned that many birds of the more arid west were decidedly different from their representatives in the more humid east. In most instances of this kind we at first had only two forms, an eastern and a western, but subsequent exploration added to the material available for study, and it was discovered that every region possessing marked physiographic and climatic characters had races peculiar to itself, and for the first time the laws of geographic variation, or of evolution by environment, became evident. This is one of ornithology's most valuable contributions to philosophical natural history; an epoch-making discovery the practical application of which, in the vain attempt to definitely name the indefinite, has led us into our present difficulties.

Thus it has happened that of the 1,068 birds included in the 1895 edition of the A. O. U. 'Check-List,' 300 are ranked as subspecies, or, in other words, a subspecies for every two and a half species. But the end is not yet. Since 1895, over seventy so-called 'new' forms have been described and with each fresh revision of a variable group the 'splitting' becomes finer and we are afflicted with added names the application of which is doubtful. As a matter of fact, specimens are no longer separated from specimens, but series of specimens from series of specimens, and herein lies the evil of splitting as it is at present practiced.

We have long passed the stage in our study of the climatic variations of North American birds, when we should expect to discover a subspecies so marked that its characters would be convincing in a single specimen. In fact, large series are usually necessary to make apparent the differences on which it is proposed to separate one bird from another. Placed side by side, it becomes evident that one row of birds, *as a row*, is more or less unlike the other row, and the cumulative differences of perhaps thirty birds are, in describing such forms, ascribed to one, whereas, to a degree, in resolving the series of thirty birds into its component individuals, the value of the characters attributed to the new form are

in effect divided by thirty, that is, theoretically, are evenly distributed among the thirty birds of the series. The probabilities are, of course, against so even a division of differences, but the series will, undoubtedly, contain birds in which the characters attributed to the form are almost wholly wanting. A case in point is furnished by an ambitious splitter, who admits that a series of thirty-six specimens "barely suggested" differences, on which, however, with the assistance of eleven additional specimens, he proposes to found a new subspecies! Now, while we cannot overestimate the importance of determining with the utmost exactness the geographic variations of birds in further elucidating the laws of evolution by environment, we maintain that the recognition by name of such minute and inconstant differences as we have indicated is a perversion of the uses of zoölogical nomenclature and a menace to the best interests of ornithology.

The layman, whether or not he is inclined to sneer at the closet naturalist, bows to his authority and accepts without question his ruling, whether it be a new name or a new nomenclature. But if we do not mistake the signs the lay ornithologist has become so confused in a vain effort to keep pace with the innovations of the professional, that he is on the border of revolt against what, in the main, he esteems to be a needless juggling with names.

Fortunately, there is a court to which we may appeal in this difficulty. The American Ornithologists' Union, appreciating the need of revision of the work of too enthusiastic systematists, has a standing committee, whose duty it is to pass on the species and subspecies of North American birds, which have been described since its last meeting, with the laudable object of excluding those which seem unworthy of recognition by name. We appeal, then, to this committee to protect us from the undue development of a practice which is bringing systematic ornithology and some systematic ornithologists into disrepute and, by rendering accurate identification impossible, proving a needless source of discouragement to students of birds.

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 (President of the Audubon Society of the State of Connecticut), Fairfield, Conn., to whom all communications relating to the work of the Audubon and other Bird Protective Societies should be addressed. Reports, etc., designed for this department should be sent at least one month prior to the date of publication.

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Hats!

Madame Arnold, 7 Temple Place, Boston, sends her name to be added to the "Milliner's White List."

By the way, is Massachusetts to have the milliner's flag of truce all to herself? Will not some member of the Audubon Society, in every large town, make a point of securing at least one name for this list? It is in this way that the honorary vice-presidents can come to the front and be of use. Every well-dressed, well-groomed woman who buys several changes of head-gear a year can exert a positive influence upon her milliner, if she is so minded, and by appearing elegantly charming in bonnets devoid of the forbidden feathers, do more to persuade the milliner to drop them from her stock than by the most logical war of words.

A glance at the holiday hats seen re-

cently at many good shops, theaters, and in the streets of New York, was not without much that is encouraging.

Velvet flowers of exquisite colors and workmanship, jeweled, gold, and steel ornaments, and pompons of lace and ribbon have largely taken the place of any but Ostrich feathers, with people of refined taste.

To be sure, bandeaux of separated feathers offer a Chinese puzzle as to their origin, Ptarmigan wings and questionable quills appear on walking hats, and the Egret still lingers as the apex of many a diamond hair ornament, but the *average is surely better*. Fewer Grebe muffs and capes are seen, and whole Terns seem, by common consent, to be relegated either to the wearer of the molted garments of her mistress or to the 'real loidy,' who, in winter, with hat cocked over one eye, pink tie, scarlet waist, sagging automobile coat, rickety Louis heels, and rings instead of

gloves, haunts the cheaper shops, lurching on either beer or soda water, and in summer rides a man's wheel, chews gum, and expectorates with seeming relish.

The headgear of a fashionable audience, gathered at the first night of a new play, was another encouraging sign. Those who arrived without bonnets wore in their hair a single flower, a fillet of ribbon or some flexible metal, or lace choux. I only recognized half a dozen Egrets among them, and these were worn by women of the dubious age and complexion that may be excused from the shock of abandoning time-honored customs. During the five minutes' millinery show allowed, before the rise of the curtain causes the well-bred to unhat, absolutely no feathers were discoverable, save a few white breasts, Ostrich, and Maribou plumes; the effect of so much softly draped, delicately tinted gauze, mingled with gold, silver and flowers, giving greater brilliancy to the house than had a Bird of Paradise, a Humming-bird, or a Cockatoo been perched on every head.

We may ask ourselves if the change has any special significance. Is it a mere freak of fashion? Is it owed to the law or to the lady?

Let us credit it to the law *and* the lady, and hope that the two are standing with locked hands, as they exchange New Year's greetings and form a twentieth century alliance in the cause of Bird Protection, as they have so often done in other things that elevate the race.—M. O. W.

Reports of Societies

NEW YORK SOCIETY

Among the salient features of the recent work accomplished by the New York Audubon Society, especial mention should be made of the satisfactory results which have attended the issuing of the Bluebird button, and the establishment of the free associate membership—open to those under eighteen years of age.

The triumph of the past year was the success of the Hallock Bill, signed by Governor Roosevelt on May 2, 1900. An earnest plea, signed by Mr. Chapman and

Mr. Dutcher, was sent to all adult members of the society, to urge favorable action on the bill upon the assemblymen and senators at Albany. The response to this appeal from all parts of the state proved the advance made by the army of bird protectors, and greatly strengthened the untiring efforts of Mr. Hallock, Mr. Dutcher and Mr. Chapman in securing the passage of this law.

The new law, in poster form, has been sent to over 3,500 postmasters. Large linen posters have also been circulated.

At the annual meeting, held June 2 at the American Museum of Natural History, it was stated that since the former report 11,719 leaflets had been distributed. Since that date 11,405 have been put into circulation. The total number printed by the Society approximates 125,000. Over 100,000 have been distributed. Since the last report of the New York Society appeared in BIRD-LORE, the following valuable leaflets have been issued:

'The Educational Value of Bird Study,' by Mr. Chapman; 'Consistency in Feather Wearing,' by Mrs. Wright (kindness of Connecticut Society); 'Save the Birds,' by Mr. Dutcher (first issued by Pennsylvania Society); 'The Passing of the Tern,' by Mr. Chapman, reprinted from BIRD-LORE; 'Law Posters and Leaflets,' and 'Letter of Appeal,' by Messrs. Chapman and Dutcher.

The present membership is 2,479.

Through the courtesy of the American Museum of Natural History, the members of the Audubon Society residing in the immediate vicinity of New York city have enjoyed the privilege of hearing the special course of lectures, given by Mr. Chapman at the Museum, on 'Birds in Nature.'

It would be unjust not to speak of the great help afforded by many of our local secretaries, especially in the all-important work among the children.

The New York Audubon Society is constantly deterred in its efforts by the lack of funds. To develop the educational side of this movement will require large additional income, and how to devise means to attain this is the immediate task before us.

EMMA H. LOCKWOOD, *Secretary*.

PENNSYLVANIA SOCIETY

The Pennsylvania Audubon Society has been actively engaged during the past year, both in furthering the general interest in bird study and bird protection in this state, and in lending its aid to more widespread efforts in the same direction. The fact that our president, Mr. Witmer Stone, is also chairman of the A. O. U. Committee on Protection of North American Birds, has brought the society into close connection with several of the most important movements towards bird protection that have been undertaken during the year. Foremost among these was the Lacey Act. From the start, the Pennsylvania Society took an active part in urging the members of Congress from this state to support the measure, and the fact that Pennsylvania cast a larger vote for the bill than any other state and not one vote against it, speaks well for our success. The society was also represented in the effort to protect the Gulls and Terns of the Atlantic coast during the nesting season of 1900, the New Jersey colonies being under the care of our treasurer, Mr. Wm. L. Baily, whose very successful work is described in the report in the January number of 'The Auk.' Our society was also active early in the present year in arousing opposition to the killing of Blackbirds in Delaware for millinery purposes. Circulars were distributed throughout the state which attracted much attention and resulted in the abandonment of the slaughter and also in the organization of the Delaware Audubon Society.

During the year our membership has increased to over 6,000, and seven local secretaries have been appointed, while several local clubs for bird study have been organized. This is one of the most important features of our society, and we cannot too strongly urge those interested to volunteer their services in furthering local organizations of this sort.

About 8,000 circulars of various kinds were issued during the year, including an abstract of the state bird laws printed on heavy cardboard suitable for hanging in post offices, reading-rooms, etc.

Through the kindness of one of the

directors, the society has been enabled to purchase a small library and a set of colored pictures of common birds, which have been circulated among country schools to aid the teachers in conducting Bird Day exercises.

On June 1, the teachers of the vacation schools of Philadelphia were invited to meet the directors of the society at the Academy of Natural Sciences and were addressed by Mr. Witmer Stone on the subject of bird study in city schools, while the collection of Pennsylvania birds and nests in the museum was explained to them.

On January 5, 1901, the annual meeting of the society was held at the Academy of Natural Sciences. The attendance was very large and the interest in the proceedings was marked. After the transaction of routine business, Mr. Stone made an address on 'Bird Protection in America During 1900'; Mr. George Spencer Morris followed with an illustrated paper on 'Our Winter Birds,' and Mr. Wm. L. Baily concluded the program with a talk on 'Bird Study With the Camera,' illustrated by lantern slides of birds and nests from nature.

The old board of directors was reelected for the ensuing year.

JULIA STOCKTON ROBINS, *Secretary*.

The Baltimore Gull Case

The confiscation of 2,600 Gulls found in the possession of Dumont & Co., of Baltimore, has been followed by the indictment by the grand jury of the manager of this firm, and the case to determine whether they are liable to the fine of from one to five dollars for each bird will probably come up in February.

Proposed New Bird Laws

Efforts are being, or will be made to improve the bird laws of Maine, Connecticut, New York, New Jersey, Pennsylvania, Virginia, North Carolina, Florida and California, and it is hoped that BIRD-LORE readers will use their influence to make these efforts successful.

Further details may be learned, as they are developed, from William Dutcher, 525 Manhattan Ave., New York city.



Bird = Lore

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

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. III

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No. 2

Walrus Island, a Bird Metropolis of Bering Sea

BY FREDERIC A. LUCAS

WITH PHOTOGRAPHS FROM NATURE BY H. D. CHICHESTER

IT was a sunny afternoon in July when the cutter *Rush* made a long détour around the treacherous shallows off Reef Point, St. Paul Island, and steaming by Sivutch Rock, with its colony of fur seals fanning themselves in the unwelcome sunshine, headed for Walrus Island. We knew this spot from afar off and indistinctly, for, although but six miles distant from N. E. Point, such is the average summer weather of Bering Sea that most of the time it is enshrouded in a mantle of fog. Some of its inhabitants we knew very well, for the Burgomaster Gulls (*Larus glaucescens*) which dwell there make daily visits to St. Paul in search of the offal of the seal killing-grounds, or to peck at the eyes of the dying and dead pups on the fur seal rookeries, or to carry home a bit of vegetation for a nest. The few walruses, whence the island derived its name, have disappeared, killed or driven away by the persecutions of man, and the last one was shot in 1891. The spot was never a breeding ground, merely the summer haunt of a score or so of old male walruses thrust out of the company of their fellows by younger and abler beasts, or preferring a peaceful bachelorhood to the cares of married life. The birds, however, remain undisturbed, save for a few visits in early summer from the natives, who go over to load a boat or two with eggs that form an agreeable change from salt and canned provisions.

Half the distance between St. Paul and Walrus Island had been covered when a breath of cool air swept over the water, and in another minute everything had vanished and we were steaming through the fog. On we went until the patent log said that the island was not far distant, and accordingly the *Rush* was slowed down, while, in addition to the careful lookout that had been continually kept, the lead was cast in order that we might not come upon the land in more ways than one. And now the fog thinned out and rolled up into fleecy clouds, leaving everything visible for some distance ahead, but revealing no trace of Walrus Island. The

rapid and erratic tide had swept us by; instead of twelve miles we had run an unlucky thirteen, and back we turned, into the retreating fog, which, rolling up before us, left Walrus Island not only perceptible to the eye but, as we passed to leeward a quarter of a mile away, decidedly perceptible to our noses.

Nature has considerably furnished two landing places, very excellent ones, too, provided the sea be smooth and the wind in the right direction: and we came to anchor off the most picturesque of these, a little steep-walled cove, on one side of which it was possible to climb out upon a stone quay. The cautious Burgomaster Gulls were circling high overhead with wailing cries long before we reached land, and some of the Kittiwakes and a few of the most nervous Arries deserted their nests or eggs, as the case might be, as we drew near; but the bulk of the bird population declined to budge until we had landed and were close upon them. This bulk consisted of thousands of the Pacific Murre (*Uria lomvia arra*), occupying the cliffs and angular rocks of the southern and western portion of the island, where their many-colored eggs lay thickly scattered about. Mr. William Palmer notes that at the time of his visit in 1890 these birds were mostly on the western side, while on the east and south were the legions of the California Murre (*Uria troile californica*), but no such striking peculiarity of distribution was noticed by our party, nor were the California Murres much in evidence.

It had often been a matter of wonderment how any given member of a great bird colony could find its own particular egg among the hundreds available for a choice, and the behavior of returning Arries was watched with no little interest. If one might judge by their directness of flight as they came whirring in from sea, the birds had a good bump of locality and a pretty clear idea of the whereabouts of their respective eggs. It has been suggested that these birds do not of necessity get each its own egg, but that often an egg is chosen because it seems convenient. Such, however, did not seem to be the case with the Arries. On the contrary, there seemed to be a very definite selective process, for a bird would alight, cock its head on one side, waddle a step or two, cast another knowing look about, and after a few such trials apparently find an egg that seemed satisfactory and settle contentedly down upon it. May it not be that the wonderful variation in the color of the eggs, a variation that is most striking when seen in nature, enables each bird to find its own with ease? Another suggestion in regard to the eggs of Murres is that the very pale eggs (and some are absolutely devoid of markings) are the later layings of birds whose earlier eggs have been destroyed, and this suggestion seems very plausible.

The Kittiwakes (*Rissa brevirostris* and *R. tridactyla pollicaris*) were mostly confined to the ledges of rock about the landing place, but the Burgomasters occupied the higher central portion of the islet where the



rock was covered by a scanty soil, forming a colony of goodly size, although by no means crowded. In view of the numbers of old birds circling overhead, the scarcity of eggs and apparent absence of young seemed a little remarkable; but a more careful look showed them all about us, squeezed among the rocks, half concealed under the scanty tufts of grass or, with tightly closed eyes, flattening themselves into some slight depression in the soil. Not one, if memory be not treacherous, was in its nest; and some of the larger birds were a long way from home, skulking along among the rocks in the endeavor to put as much distance as possible between themselves and the unwelcome intruders. A number of young Burgomasters may usually be seen about the village of St. Paul, their legs



YOUNG BURGOMASTER GULLS

or bills decorated with a colored bead or two, or a strip of red flannel, these being nestlings brought back by the eggging parties early in the season and kept for pets, not, as Herring Gulls are in parts of Newfoundland, to be used for food later on. They are readily domesticated and become very tame, running about the village and along the shore in search of food, or, later on, taking long flights with the wild Gulls. It always seems a little singular to see a bird leave a flock and come flying to the village, or to be approached by a big, gray Gull with open mouth and an appealing squeal for food. For young Gulls are always "so hungry;" possibly, at times, they get all they wish to eat, but the few whose acquaintance I have made seemed blessed with "a perfectly lovely appetite."

A few Tufted Puffins (*Lunda cirrbata*) and Cormorants (*Phalacrocorax*

urile) completed the population of Walrus Island, and as there is no soil in which to burrow, the Puffins had ensconced themselves here and there beneath some overhanging rock, making valiant resistance with beak and claw to any attempt to dislodge them. The Cormorants of the Pribilof appear to be a waning race; Mr. Palmer noted that they were much less abundant than formerly, and now they are comparatively scarce on St. Paul, a few scattered birds breeding on the bluffs of Polovina. Very few nests were to be found on Walrus Island and, although the Cormorants arrive early in the season, one of these contained two perfectly fresh eggs. Near by was another nest with an egg and two small, naked chicks which, later on, we saw the parent bird busily engaged in feeding.



RED-FACED CORMORANTS

The Choochkie (*Simorbynchus pusillus*), abundant on St. Paul and swarming by millions (I refuse to remove a single cipher) on St. George, was noticeably absent, owing probably to the lack of suitable breeding places, since there are neither crevices in the rocks nor soil in which to burrow.

The Paroquet Auklet (*Cyclorbynchus psittaculus*) was not seen, although noted by Mr. Palmer on his visit in 1890; so, as far as species go, Walrus Island may be considered poor, although this lack is compensated for by the great abundance of individuals.

The afternoon drew on, and in spite of occasional puffs of drifting fog, it was one favorable for the work of the surveyors, so that before six o'clock their work was done, and when the whistle of the *Rush* blew 'all aboard' every one was ready to depart. Fifteen minutes later the inhabitants of Walrus Island were enjoying their accustomed solitude.

Our Blue Jay Neighbors

BY MRS. HARRIET CARPENTER THAYER, Minneapolis, Minn.

Illustrated by photographs from nature by Thos. S. Roberts

IT is perhaps a rare privilege, in the midst of a large city, to be chosen as neighbors by a family of Blue Jays, yet such was our good fortune.

They came one May morning into the top of a young elm tree close by our bedroom window. One had a twig in his mouth which he was endeavoring to get into position in the site selected for the nest. He pulled



BLUE JAY ON NEST

and tugged, now bending his body, now twitching his head, until at last he succeeded; and the news spread abroad that a pair of Blue Jays were building a nest in our tree. For two days they worked, completing the outside; then they came at longer intervals for two days more, bringing choice bits of finishing for the inside. Both birds took part in the labor of house-building.

During these days three small heads were often peering at them from the window near by and shrill little voices often interrupted their work. But at last, though we trembled lest we had frightened them away by our frantic efforts to keep quiet, the mother settled down on her nest and only whispers were heard at the window.

The many weary hours during which the eggs had to be kept warm were divided between the two birds, each relieving the other at more or less regular intervals. And the bird at play did not forget its imprisoned mate, but returned now and then with a choice bit of food, which was delivered with various little demonstrations of sympathy and affection.

We watched and waited patiently, and were well rewarded; for though the birds kept an eye on us they let us enjoy their daily life and attended to their duties in full view. The nest, built so near the top of the slender tree, swayed and bent to every breeze, and as Minnesota breezes are apt to be-



BLUE JAY ON GUARD AT THE NEST

come high winds, often hung at a perilous angle, keeping the mother busy balancing herself and settling her eggs. Almost every day we expected to find on the ground one or more eggs that had been thrown out and broken.

Blue Jays are very numerous in Minneapolis, and their loud screams are almost as familiar as the incessant chatter of the English Sparrows. They are always discussing something vigorously, and using their voices fortissimo. We were delighted therefore to hear low, sweet, little notes and measures, and what might be called talking. They reserved their best efforts evidently for wooing and early morning conversations, and only their intimate friends overheard.

The nest, eighteen feet or thereabouts from the ground, was visible from our bed; and one morning on first awakening we saw with a thrill the father and mother gravely bending over five wide mouths, plainly to be seen at that distance. The birds had all hatched out within twenty-four hours. Then began the process of filling up those mouths, always opening and stretching to their widest extent, as if afraid of missing something. This was impossible, however, as their parents forcibly and effectually stuffed each morsel down their throats, seemingly into their very stomachs.

The father, it might be, would arrive with a long worm, which he and the mother then swallowed by bits, commencing at either end and working toward



A BLUE JAY FAMILY

the middle, where it would break, leaving each parent with half the worm. Then, after a pause during which the five mouths quivered with suspense, the softened food was given up to the babies by a sort of regurgitation, and away went the father after more. While the birds were incubating the eggs only the head and tail were visible above the rim of the nest, but after hatching they sat or stood so much higher and puffed out their feathers to such an extent that they appeared twice their former size. The Jays were not at all shy, but on the contrary were very valiant and determined in standing by their home. Soon after the eggs were laid, the house-painters began work opposite the nest, and many sharp pecks they received on their ears and backs. People inside the house could be endured, but people outside were a little too much, and the birds challenged each man to fight it out.

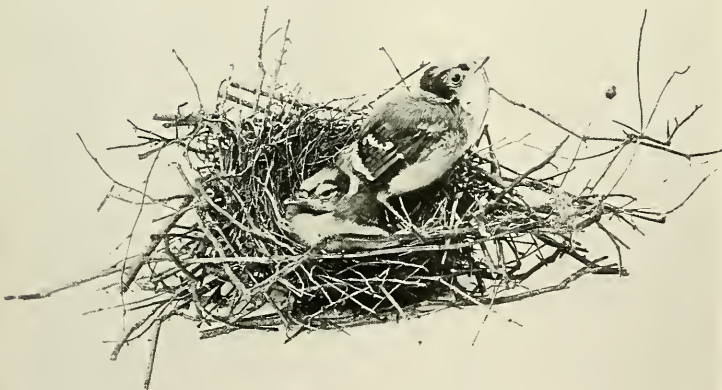
The birds were very neat about their nest, both parents cleaning it daily. The excrement was not simply thrown out, as one would naturally expect, but was carefully removed to a distance.

On a platform built outside the window, a camera was placed bringing the nest somewhat less than ten feet away. The birds, accustomed to children's and painters' voices, paid no attention, and a series of photographs were taken of the family life in the tree.

One afternoon when the growing birds had come to fill their nest to overflowing, a severe storm came up, turning the tree-top and nest upside down. As we sat together inside the house our one thought was for the birds outside in the increasing storm. In the flashes of lightning we could see the mother, soaked by the rain, with head bent, her feathers spread out over her little ones, keeping her place in spite of the violent gusts of wind. Next morning one fat little bird, showing blue on his wings, was found dead on the ground, while the process of stuffing the remaining four went on above just as usual.

At last the nest was discovered empty, and by the cries and excitement on the lawn we traced the young birds to their perches in the trees, solicitously guarded by their anxious parents. They were coaxed and urged into trying short flights, and blundered about with an aimless and uncertain motion.

For several days we could distinguish them by the yellow of their beaks; but soon we lost them from sight, and "our Blue Jays" were no longer known amid the throng, though their memory will long live in our traditions and their story be well preserved in the camera studies that were so happily and harmlessly stolen.





SHORE-LARK ABOUT TO FEED YOUNG. Photographed from nature by F. A. Van Sant

Early Larks

BY F. A. VAN SANT, Jay, N. Y.

DURING March, 1900, there was a heavy fall of snow in the northern part of the Adirondacks, and by the middle of April the ground was still covered with a feathery blanket, except on the slopes of the sand-hills facing the south, where the snows had slipped and wasted.

Part way down one of these hills, on a patch of sand and dried grass surrounded by snow, I found, on the 12th of April, the nest of a Prairie Horned Lark. It was about two inches deep, was lined with dead grasses and contained four delicately speckled eggs. Three days later something interesting transpired in that little brown nest. As though to commemorate the amazing mysteries of the first great Easter morning, the little prisoners of the shell, on Sunday, April 15, burst from their confinement. Only a short time elapsed ere their little notes of hope and ecstasy were added to the grand chorus of nature's hallelujahs. The parent birds twittered the anthems of this festive day as they diligently searched for food with which to feed their tiny nestlings.

The next day was cloudy and Tuesday was cold, with snow squalls all day, but Wednesday came clear and bright, and I spent the day in watching the birds and taking their pictures. I used a Pony Premo Sr. camera, $6\frac{1}{2} \times 8\frac{1}{2}$, with rapid rectilinear lens and a 4×5 Hammer plate in a kit. I set the camera quite early in the morning, so that the birds would become accustomed to it. After the sun was high enough to make a snap shot possible, I tied a long black thread to the shutter release and, keeping my opera glasses ready for instant use, sat down to await results.

The parents at first were shy, flying in circles overhead and calling in their clear voices to each other. After reconnoitering, they evidently arranged a plan of action. Both disappeared entirely; then I heard a call and, looking up, saw on the brow of the hill to the left, away from the nest, which was to the right, a bird I judged to be the male. He ran toward me, called, ran still nearer, then flew away; and as I looked toward the nest I saw the mother just leaving. In this way he tried to attract my attention every time the female neared the site of their precious home. Then I watched the mother. She never *flew* to the nest. I would first see her on the hillside some distance away running around as though she had no particular aim in life, but still she kept getting nearer and nearer to the nest. The surface of the ground was rough with stones, ridges, hollows, and drifts of snow, and taking advantage of these she would finally run quickly a short distance, stop and huddle down, then run, and in this way reach the nest. As I could only get an occasional glimpse of her when nearing her young, she time after time fed them and flew away before I could be sure she was in a position that would not cast a shadow on them. I have watched Phœbes, Robins, Wax-wings and other birds feed their young, but I never saw it done so quickly or in such a secretive manner.

They grew so fast that they crowded one another out of the nest, which was on such a slant that before they were half grown they would tumble out and roll a little ways down hill, and twice I had to replace them. I intended getting a picture of the birds when they were nearly feathered, but cloudy weather followed by storms of rain and snow prevented. Ten days after hatching it was again clear and I went to get another negative, but found that the nest was empty.

Saw-whet Homes

BY P. B. PEABODY, Hibbing, Minnesota

With photographs from nature by the author

THE breeding habits of the Acadian Owl are little known even by those who are personally familiar with the little fellow. But there are haunts of his where the patient may find him thoroughly at home. Riding across a sea of flooded prairie, along the Red River of the North, April 4, 1898, on the saddest of errands, I renewed acquaintance with the Saw-whet, after an interim of many years. Brought to a halt by a washed-out bridge, I had led my mare over a twelve-foot drift to shelter, and kept on along the railroad track that threaded the waste of waters. It was near midnight. Nearing Hallock, along the South Fork, narrowly, but heavily, wooded with primeval trees, I heard, delightedly,

upon the wind that sweet fluting unheard for many years. Astounded at the bird's persistence, I counted the notes. Seven hundred, without a break, I counted, and then gave it up. There were about two notes per second, with occasional bursts at half the interval. (Explanation of this came later.) The few irregular intervals of silence would not exceed three seconds' duration.

By noting the source of the night-song from two directions I located the spot so nearly that when, on the morning of May 5, at dawn, I scoured the place, I readily located the elm stub in which the nest was hidden. This old tree stood beside the bank of the creek, a little remote, in the midst



YOUNG SAW-WHETS

of many large elms. Twelve feet up was the opening of the Flicker-made cavity. From this, at my very first rap, the Saw-whet's head protruded. As I climbed, she, having disappeared within, came out again and flew fifteen feet away to a dead branch, where she sat long in utter silence. The hollow was sixteen inches deep. It was well filled with bark strippings, placed there by red squirrels. Well jumbled together in this mass were seven eggs, whose incubation varied from nothing to well-formed small embryos, a headless meadow-mouse and many contour feathers of the Pine Grosbeak, with flight-feathers and tail feathers of Juncos, Warblers and other small birds. Many of these feathers were stuck into bark crevices, and the habitation of the stub seemed to have covered a number of years. A few pellets lay at the base of the tree. This pair of birds I never found again.

On the wings of a howling wind, across the mile-wide flood, at Pembina, on April 13, I heard the fluting of another Saw-whet. I found the cavity, an open hollow, inhabited by this bird, later; but nothing more. During 1899, no signs of the Saw-whet were vouchsafed me.

In 1900, some ten miles east of Hallock, while looking critically for the nest of a located pair of Hooded Mergansers, I found a kiln-dried elm stub, on a sort of island, well secluded, on the South Fork. This large stub contained a Flicker hole, some sixteen feet up.

Herefrom, at a slight rap, appeared a Saw-whet. Returning, down-stream, at dusk, about a mile above this point, I suddenly heard a Saw-whet's song. When very near the spot whence the sound proceeded, I heard the doubled-time note ringing out, as if the bird were in motion; and then instantly saw the male bird sweep down, from a stub-top, with a long downward and upward curve; and perch near by. The sound he made was strangely like the distant fire-warning of a steam whistle. The female seemed away at the moment, but before I was within six feet of the Flicker hole that marked her home, she darted by me, and into the hole. I could not dislodge her. The date of these two findings was May 14.



SAW-WHET AT NEST-HOLE

Three days later, I opened the first of these two nests. The young were about three-fourths grown. They bore no down, to speak of, but many pin-feathers. There were three of the young birds. The mother allowed me to take her in hand, her only protest being the snapping of her beak. There were but few pellets at the base of the nest-tree; while the nest-hollow contained no rubbish, but only the young, the putrescent body of a gravid meadow-mouse, a Loring's red-backed mouse, and the tail of a jumping mouse. On May 29, these young were in full feather. While photographing them I could not but note the furtive manner of two of the young birds; this amounting, at times, almost to the appearance of the feigning of death. The parents were not seen, and the young had left the nest before June 5.

On the 14th of June, I opened the second nest. The female kept the cavity persistently, returning several times while I was yet in the tree. The nest-cavity was some twelve feet up, in the dead top of a still-living elm. The cavity contained squirrel-nest material, mingled with a few

feathers of small birds and of the fledgling Flickers. There were six eggs, neatly arranged in triangular form.

These eggs all seemed dead; though one or two may have still been alive. One was infertile. Various stages marked the incubation, which, in two eggs, amounted to perhaps one-fourth.

At neither of the first two nests did I ever see the male. Nor did I, at the third nest, after my first visit, find him at home, though making several visits at different times of the day.

These observations leave one in perplexity as to the normal nesting-date of the Acadian Owl in northern Minnesota. All the dates given above are inconclusive. One may, perhaps, be permitted to infer that this little Owl who has so warm a place in our affections is rather a nomad and erratic, though loving tenaciously his one-time nesting place; and that the nesting times are quite uncertain. This much, at least, is fairly sure: that *acadica* loves the wooded streams, and that a Flicker hole is his great desideratum. Open cavities are too insecure, and smaller artificial holes too small. The pretty sight of a mother Saw-whet squeezing her way into a good-sized Flicker hole gives us a fair gauge of the size of this, the smallest and most attractive of American Owls.

The Song Sparrow

By the road in early spring
 Always hopefully you sing;
 It may rain or it may snow,
 Sun may shine or wind may blow,
 Still your dainty strain we hear—
 "Cheer— Cheer—
 Never, never fear,
 May will soon be here."
 Darling little prophet that you are!

When at last the leaves are out
 And wild flowers all about,
 Songs of other birds are fraught
 With the spirit that you taught.
 Still you sing on sweet and clear—
 "Hear— Hear—
 Happy, happy cheer,
 Singing all the year."
 Jocund little brother of the air.

LYNN TEW SPRAGUE.

For Teachers and Students

Tree-Planting

THIS is the season for tree-planting, and we cannot too strongly urge the desirability of making our lawns, gardens, and orchards more attractive to birds by planting in them trees which will furnish birds with food in summer as well as in winter.

If, as a result of a widespread movement in this direction, the supply of food for birds should be greatly increased, there would doubtless be a corresponding increase on the part of the birds. Practical bird-protection means not only preventing the destruction of birds but creating conditions which shall make the world more habitable for them.

We hope that this matter of tree-planting for the birds will be given especial consideration on Arbor Days when, among the trees which are set out, there should be the mulberry, wild cherry, dogwood, Parkman's apple, mountain ash, and other trees bearing fruit of which birds are fond.

In this connection we would refer our readers to Lange's 'Our Native Birds' and to Mrs. Merriam Bailey's 'Birds of Village and Field' for further information in regard to this exceedingly important subject.

Birds and Seasons

THIRD SERIES

APRIL AND MAY BIRD-LIFE NEAR BOSTON

BY RALPH HOFFMANN

HARDLY two observers will agree on the date of arrival of the same species; for many factors enter into the problem. In the first place, few people can devote their days to playing the "detective of nature;" on our way to our work we too often hear voices calling us to the woods where many new arrivals wait to be recorded. In the second place, individual birds vary greatly in hardiness; a certain Phœbe or Chebec almost always comes a day or two before the rest of the species; breeding birds naturally precede the migrants, whose northern homes are not yet ready for them. Unless, therefore, an observer lives very near a bird's home, he often misses the arrival. Thus it will always happen in the case of rare or local birds that the man who has a Martin box under his window or a White-eyed Vireo on his beat, is the best authority for the arrival of that bird. Again, some places are on much more favorable migration routes than others; where many birds pass, the chance for an early one is of course better. At the head of Lower Mystic Lake in Medford, Tree Swallows may be seen in early April in hundreds—among them is often a Barn Swallow a week or ten days ahead of his fellows. Lastly, certain

birds occur so rarely that it is impossible to say with certainty that the first one seen is the first arrival. The weather has a greater influence on the date of arrival in April than in May. The continued warm weather in 1896 brought Black-throated Green Warblers to this vicinity on the 19th of April; two years later a cold spring kept them back till May 5, a difference of over two weeks. Orioles, on the other hand, show surprisingly slight variation in a long series of years. A cold northeaster coming after many birds have started keeps them all back, so that when warm weather succeeds, birds come in a rush. The smallest gardens in large cities are then visited by almost any species. Continued cool, bright weather, on the other hand, seems to send the birds through in small bands, so that the migration makes little impression.

I have given below, as in the list for March, two dates for each bird; the bird is not to be expected before the first, and should almost always be here before or on the second. The dates should in no sense be taken as showing the time when the whole number of the species arrive, but the time when keen and well-informed observers, much in the field, should see the first individual. The arrival of Blackpolls in force has been well said to sound the death-knell to migration, yet a few Blackpolls almost always reach us in the first great Warbler wave, but are easily overlooked. Even when we judge the migration over, and some busy pair of Vireos bids us turn our attention to nest-building, we must still keep our ears open for the "quee-quee" of an Alder Flycatcher or the hurried warble of a Mourning Warbler. (Mr. Walter Faxon has kindly let me compare my dates of arrival with some of his.)

BIRDS OF THE SEASON

For permanent residents and winter visitants see BIRD-LORE, Dec., 1900, p. 183.

Arrivals in April and May.—April 1-10, White-bellied Swallow,* Mourning Dove,* Marsh Hawk,* Pied-billed Grebe;* 1-15, Kingfisher;* 2-15, Pine Warbler; 3-12, Savanna Sparrow;* 4-10, Vesper Sparrow; 5-15, Myrtle Warbler,† Yellow Palm Warbler,† American Pipit,† Wilson's Snipe,† American Bittern, Great Blue Heron,† Purple Finch; 5-20, Field Sparrow, Chipping Sparrow, Hermit Thrush;† 10-20, Ruby-crowned Kinglet,† Winter Wren,† Sharp-shinned Hawk;‡ 10-25, Barn Swallow, Purple Martin;‡ 12-20, Swamp Sparrow; 13-30, Sora; 15-20, Cooper's Hawk,‡ Osprey,† Night Heron; 18-25, White-throated Sparrow,† Yellow-bellied Sapsucker;† 20-30, Blue-headed Vireo,† Virginia Rail; 22-29, Black and White Warbler; 22-30, Towhee; 23-30, Least Flycatcher; April 25 to May 1, Brown Thrasher, Spotted Sandpiper, Cliff Swallow, Bank Swallow; April 26 to May 1, Black-throated Green Warbler; April 28 to May 3, Yellow Warbler, House Wren; April 28 to May 5, Whip-poor-will; May 1-8, Warbling Vireo; 1-9, Parula Warbler;*† 1-10, Long-billed Marsh Wren,* Kingbird; 1-11, Redstart; 2-5, Yellow-throated Vireo; 2-9, Ovenbird; 2-10, Nashville Warbler; 3-8, Maryland Yellow-throat; 3-9, Baltimore Oriole; 3-10, Catbird, Northern

* Occasionally, or not infrequently, earlier.

† Migrant. See, however, June list (in June BIRD-LORE) for rare breeders.

‡ Date uncertain.

Water-Thrush, † Green Heron; 4-11, Rose-breasted Grosbeak; 5-11, Bobolink, Chestnut-sided Warbler, Prairie Warbler; 7-10, Wilson's Thrush; 7-12, Wood Thrush; 7-13, Hummingbird; 7-15, Blackburnian Warbler; † 8-11, White-eyed Vireo; 8-15, Night Hawk, Black-billed Cuckoo; 8-16, Scarlet Tanager, Black-throated Blue Warbler, † Magnolia Warbler; † 9-12, Golden-winged Warbler, Orchard Oriole; ‡ 9-15, Crested Flycatcher, Lincoln's Finch, † White-crowned Sparrow, † Florida Gallinule, ‡ Slossow's Sparrow, ‡ Red-eyed Vireo, Yellow-breasted Chat; 9-18, Olive-backed Thrush, † Yellow-billed Cuckoo; 10-15, Wilson's Blackcap, † Solitary Sandpiper; † 10-17, Blackpoll Warbler; † 10-20, Indigo Bunting; 13-21, Wood Pewee, Canadian Warbler; † 15-20, Bay-breasted Warbler, † Tennessee Warbler, † Cape May Warbler, † Short-billed Marsh Wren, † Sharp-tailed Finch, † Grasshopper Sparrow; † 15-25, Gray-cheeked and Bicknell's Thrushes; † May 23 to June 3, Alder Flycatcher, † Mourning Warbler, † Olive-sided Flycatcher. † †

Departures in April and May.—April 15-25, Fox Sparrow; 20-30, Tree Sparrow; 25-30, Golden-crowned Kinglet; ——— Red-poll, White-winged Crossbills, Shore Larks, Snowflakes; April 20 to May 1, Junco, Brown Creeper, Winter Wren; May 3, Yellow-bellied Sapsucker, American Pipit; 5-10, Hermit Thrush, Herring Gull; 6, Wilson's Snipe; † 9, Rusty Blackbird; 10, Ruby-crowned Kinglet, Yellow Palm Warbler; 12, Blue-headed Vireo; 15, Pine Finch; 15-24, Myrtle Warbler, White-throated Sparrow; 20-23, Black-throated Blue Warbler; 20-25, Parula Warbler; 25-28, Magnolia Warbler, Wilson's Blackcap; 28, Gray-cheeked Thrush; 30, Canadian Warbler; May 30 to June 1, Northern Water Thrush; June 1, Olive-backed Thrush; 2-3, Blackpoll Warbler. NOTE.—Red Crossbills often linger well into May; stragglers, in fact, may be seen at any time.

* Occasionally, or not infrequently, earlier.

† Migrant. See, however, June list (in JUNE BIRD-LORE) for rare breeders.

‡ Date uncertain.

APRIL AND MAY BIRD-LIFE NEAR NEW YORK CITY

BY FRANK M. CHAPMAN

April and May are exciting months for the field student. Throughout the winter they have been anticipated with an eagerness and enthusiasm which the events that so crowd them never fail to satisfy. Time cannot pass too rapidly until the calendar marks "April 1;" then we live in the assurance that each day may bring some old friend or new acquaintance. The feast of spring follows the famine of winter.

From April 1 to about May 10, birds increase in number daily; then, as the transient visitants pass onward to more northern summer homes, they become rapidly less abundant and by June 5 we have left only the ever-present permanent residents and the birds which have come to us from the south to nest.

As the days become warmer and the weather more settled, so do the birds return with greater regularity. The times of arrival of the early migrants may vary several weeks, from year to year, but the birds of May come almost on a given day. The date of a bird's appearance depends primarily, in most instances, on the nature of its food. The length of its journey, or, in other words, its winter range, is also to be considered here; but since that is also, to a greater or less extent, determined by food, we may consider the ever-important question of food as the most potent single factor governing a bird's time of arrival.

The opening of ponds and bays is followed, as we have seen, by the return of the Ducks and Geese; the Woodcock comes when the thawing ground releases his fare of earthworms; the Sparrows appear when the melting snow uncovers the remains of the preceding season's crop of seeds. It is not, therefore, until a higher temperature brings into activity myriad forms of insect life that we may expect to find Warblers and Flycatchers.

The region about New York is a favored one during the migrations. The nearness of the coast, the great highways of migration formed by the Hudson River valley and Long Island Sound give to the observer exceptional opportunities. But in no place, hereabout, can the migration be studied to better advantage than in Central Park, in the heart of New York city. The park, in effect, is an island surrounded by a sea of houses, and during the migration receives a greater number of bird visitors than any area of similar size with which I am acquainted. As a matter of local interest, therefore, in place of general notes on the spring migration in this vicinity — which have already been published in the 'Hand-Book of Birds' and 'Bird-Life' — I append records of the spring migrations of 1899 and 1900, in the Park, which have been contributed by Mr. S. H. Chubb.

SPRING MIGRATIONS OF 1899 AND 1900 IN CENTRAL PARK, NEW YORK CITY

BY S. H. CHUBB

1899

April Migrants.—April 22, Yellow Palm Warbler, Myrtle Warbler; 24, Black and White Warbler, Pine Warbler, Blue-headed Vireo; 28, Yellow Warbler; 30, Parula Warbler, Wilson's Thrush.

May Migrants.—May 1, Chimney Swift, Baltimore Oriole, Redstart, Ovenbird, Warbling Vireo, Maryland Yellow-throat, Water-Thrush, Black-throated Green Warbler, Brown Thrasher, Catbird; 2, Little Green Heron, Crested Flycatcher, Yellow-throated Vireo, Wood Thrush, Hermit Thrush; 3, Rose-breasted Grosbeak, Scarlet Tanager, White-eyed Vireo, Nashville Warbler, Blue-winged Warbler, Chestnut-sided Warbler, Black-poll Warbler, Blackburnian Warbler; 5, Red-eyed Vireo, Magnolia Warbler; 6, Prairie Warbler; 8, Olive-backed or Gray-checked Thrush; 10, Worm-eating Warbler, Black-throated Blue Warbler; 11, Hummingbird, Yellow-breasted Chat; 13, Wilson's Blackcap, Canada Warbler; 14, Bay-breasted Warbler.

1900

April Migrants.—April 29, Parula Warbler, Yellow Warbler, Water-Thrush.

May Migrants.—May 1, Least Flycatcher, Yellow-throated Vireo, Warbling Vireo, Brown Thrasher; 2, Towhee, Blue-headed Vireo, Catbird; 3, Wood Thrush, Prairie Warbler; 4, Ovenbird, Chestnut-sided Warbler, Canada Warbler; 6, Kingbird, Baltimore Oriole, Purple Finch, Rose-breasted Grosbeak, Swamp Sparrow, Blue-winged Warbler, Magnolia Warbler, Maryland Yellow-throat, Hermit Thrush; 7, Red-eyed Vireo, Nashville Warbler, Wilson's Thrush; 8, Scarlet Tanager, Black-throated Blue Warbler, Olive-backed or Gray-checked Thrush; 9, Black-billed Cuckoo, Wood Pewee, White-eyed Vireo, Blackburnian Warbler, Bay-breasted Warbler, House Wren; 10, Eave Swallow; 14, Black-poll Warbler, Wilson's Blackcap; 17, Olive-sided Flycatcher; 31, Mourning Warbler.

APRIL AND MAY BIRD-LIFE NEAR PHILADELPHIA

BY WITMER STONE

April and May are preëminently the months of migration. March, with its frequent cold and stormy days, offers many a setback to the traveling birds, but once past the early days of April, the tide sweeps steadily on, reaching its highest point during the first week of May. The great waves of Warblers which arrive suddenly over night and fairly swarm in the tree-tops are characteristic of the May migration. The first of these waves usually reaches Philadelphia about the first of May and is followed by others, until the 20th or 25th, when the flight begins to wane, and by Decoration Day all the transients are gone save a few stragglers, mainly Black-polls and Gray-checked Thrushes.

The great wealth of bird-life, the swarms of minute Warblers in the tree-tops and their various songs that we have not heard for a whole year, are almost disheartening to the careful observer. There is not time to identify every individual of this host, and who knows but we may have passed by a Cerulean or Mourning Warbler, or other rarity!

With the presence of all our summer and permanent residents as well as practically all of our transients, May naturally affords opportunities for very large daily lists. My notes show fifty-four species observed within the northern limits of Philadelphia on the morning of May 13, 1888, and again May 19, 1891, but I was not very favorably situated. Across the river, at Haddonfield, N. J., upward of eighty species have been noted on a single day at the height of the migration, by Mr. Samuel N. Rhoads.

Beside the numerous arrivals from the south we have not a few of our winter visitants with us during April, and some Juncos and White-throated Sparrows stay regularly until after May 1.*

Many of our summer residents begin nesting during April and May and some of the earliest breeders have young on the wing before the 1st of June.

BIRDS OF THE SEASON

For permanent residents and winter visitants see BIRD-LORE, Dec., 1900, p. 185.

April Migrants.—April 1-10, Green Heron, Vesper Sparrow, Savanna Sparrow, Chipping Sparrow, Tree Swallow, Purple Martin, Myrtle Warbler, Hermit Thrush; 10-20, Chimney Swift, Towhee, Barn Swallow, Bank Swallow, Yellow Palm Warbler; 20-25, Solitary Sandpiper, Spotted Sandpiper, Whip-poor-will, Rough-wing Swallow; Blue-headed Vireo, Black and White Warbler, Maryland Yellow-throat, House Wren, Brown Thrasher; 25-30, Least Flycatcher, Cliff Swallow, Grasshopper Sparrow, Red-eyed Vireo, Warbling Vireo, Black-throated Green Warbler, Blue-winged Warbler, Parula Warbler, Yellow Warbler, Redstart, Ovenbird, Catbird, Wood Thrush.

May Migrants.—May 1-10, Yellow-billed Cuckoo, Black-billed Cuckoo, Night-hawk, Ruby-throated Hummingbird, Wood Pewee, Crested Flycatcher, Green-crested

*An unaccountable slip of the pen in the February BIRD-LORE implies that our winter visitants usually leave about April 1. As a matter of fact, all our regular winter visitants, except the Tree Sparrow, remain until the end of the month, at least.

Flycatcher, Kingbird, Bobolink, Orchard Oriole, Baltimore Oriole, Indigo Bunting, Rose-breasted Grosbeak, White-crowned Sparrow, Scarlet Tanager, Yellow-throated Vireo, White-eyed Vireo, Nashville Warbler, Black-throated Blue Warbler, Magnolia Warbler, Chestnut-sided Warbler, Prairie Warbler, Hooded Warbler, Blackburnian Warbler, Worm-eating Warbler, Chat, Water Thrush, Wilson's Thrush; 10-20, Yellow-bellied Flycatcher, Golden-winged Warbler, Tennessee Warbler, Cape May Warbler, Bay-breasted Warbler, Black-poll Warbler, Wilson's Blackcap, Canadian Warbler, Mourning Warbler, Olive-backed Thrush, Gray-cheeked Thrush.

APRIL AND MAY BIRD-LIFE NEAR OBERLIN, OHIO

BY LYNDS JONES

April weather is a very uncertain quantity, yet the first few days are frequently pleasant and enticing to the more venturesome birds. In the last five years the first week has four times witnessed a decided wave of northward migrants which sweeps the Northern Shrike and the Rough-legged Hawk away. This mild weather is likely to be followed by a decidedly wintry week, with snow or at least freezing nights. It is not until the beginning of the third week that any other marked movement occurs, when such birds as Lapland Longspur, Tree Sparrow and Horned Lark leave us. During the last ten days the spring-like weather brings the greatest movement of the year, carrying northward Junco, Golden-crowned Kinglet, Fox Sparrow, Hermit Thrush, Horned Grebe, and, usually, Ruddy Duck.

With the arrival of May the later migrants crowd in, even should the nights be frosty, as they sometimes are until the middle of the month. The May weather is rarely too inclement for the eager birds. During the first five days we lose Wilson's Snipe, Rusty Blackbird and Pectoral Sandpiper; then there is a lull of five days when none depart; but during the third five days—10th to 15th—we lose Ruby-crowned Kinglet, Myrtle Warbler, Black-and-white Warbler, Blue-headed Vireo, Winter Wren, and sometimes Palm Warbler. From the 15th to the 20th we lose American Crossbill, White-throated Sparrow, Black-throated Green Warbler, Black-throated Blue Warbler, Solitary Sandpiper, Water Thrush, Tennessee Warbler, White-crowned Sparrow and American Pipit. The last ten days of the month witness the departure of practically all other migrants, including Nashville Warbler, Chestnut-sided Warbler, Blackburnian Warbler, Magnolia Warbler, Least Flycatcher and Olive-backed Thrush, leaving us with only the summer resident species. Such ducks as Lesser Scaup, Greater Scaup, Bufflehead, Blue-winged Teal and Baldpate are likely to tarry well into May.

BIRDS OF THE SEASON

For permanent residents and winter visitants, see BIRD LORE, Dec. 1900, p. 186.

April Migrants.—April 1-10, Pied-billed Grebe, Pectoral Sandpiper, Chipping Spar-

row, Field Sparrow; 10-20, Bartramian Sandpiper, Spotted Sandpiper, Yellow-bellied Sapsucker, Chimney Swift, White-throated Sparrow, Barn Swallow, Swamp Sparrow, Myrtle Warbler, Purple Martin, Brown Thrasher, Ruby-crowned Kinglet; 20-30, Wilson's Snipe, Solitary Sandpiper, Kingbird, Crested Flycatcher, Least Flycatcher, Bobolink, Baltimore Oriole, Grasshopper Sparrow, Cliff Swallow, Bank Swallow, Scarlet Tanager, Red-eyed Vireo, Warbling Vireo, Black-and-white Warbler, Blue-winged Warbler, Nashville Warbler, Yellow Warbler, Black-throated Green Warbler, Palm Warbler, Ovenbird, Maryland Yellow-throat, Redstart, House Wren, Catbird, Wood Thrush, Wilson's Thrush, Olive-backed Thrush.

May Migrants.—May 1-5, Orchard Oriole, Rose-breasted Grosbeak, Indigo Bunting, Yellow-breasted Chat, Yellow-throated Vireo, Cerulean Warbler, Blackburnian Warbler, Green-crested Flycatcher; 5-10, White-crowned Sparrow, Parula Warbler, Tennessee Warbler, Cape May Warbler, Bay-breasted Warbler, Black-throated Blue Warbler, Magnolia Warbler, Canadian Warbler; 10-15, Yellow-billed Cuckoo, Black-billed Cuckoo, Ruby-throated Hummingbird, Wood Pewee, Black-poll Warbler, Mourning Warbler; 15-20, Least Sandpiper, Traill's Flycatcher.

APRIL AND MAY BIRD-LIFE AT GLEN ELLYN (NEAR CHICAGO), ILLINOIS

BY BENJAMIN T. GAULT

With the real opening of spring, which may take place here anywhere between the 15th and 25th of April, it is clearly observable that a new order of things is apparent on every hand, though we do not feel that the season is actually upon us until the hepatica and the little spring beauty have contributed their matchless charms to the yet incipient plant-life of our hitherto flowerless woods. Even then it is sometimes a question more undecided than otherwise when we carefully take into account the weather. The birds, too, offer us almost a parallel illustration when we stop to consider and study their ways. The largely insectivorous species, the true harbingers of spring, do not appear in anything approaching wave-like movements until about the closing days of the month, or when the rejuvenating influences of milder weather have set into active motion the various forms of insect-life. Several species that have passed the winter with us, or made their appearance during the days of February and March, now make their exit for more northern breeding latitudes; and of this class we may mention the Tree Sparrow, Short-eared Owl, Rough-legged Hawk, Junco and Fox Sparrow; also the Rusty Grackles, which have added so largely to the animated life of the woodlands during the earlier days of the month. At this period they are great ground-searchers for the several kinds of larvæ snugly hidden beneath the dead and moistened leaves, and as they pass hither and thither in restless flocks through the woods, prospecting as they go, they present indeed a most interesting sight.

Our early breeders, the Hawks and Owls, Crow, Jay and White-rumped Shrike, are covering well-advanced eggs by this time.

In favorable seasons we may confidently look for the arrival of the Bobolink, Baltimore Oriole and, possibly, the Rose-breasted Grosbeak, during

the closing days of the month, but the opening days of May are surer by the rule in finding them here.

May is the month of bees, bird music and wild flowers, and possibly is the gayest of all gay periods of the year. To the true nature lover it encompasses a season of really pronounced pleasures.

Who has not for ever to be associated in his memory the *O-yes-I-am-a-pretty-bird-pretty-bird* of the Baltimore Oriole, the apple blossoms and the Warblers?

The Flycatchers and Vireos, too, are upon the calendar, in addition to the smaller Thrushes and Scarlet Tanager, whose fiery tropical plumage, in the case of the latter, very strikingly offsets the more somber tints of many of our commoner birds.

The bulk of our Warbler hosts and the Thrushes continue onward to their more northern summer homes, and with us, are simply transients.

BIRDS OF THE SEASON

For permanent residents and winter visitants, see BIRD-LORE, Dec., 1900, p. 187.

April and May Migrants, showing extreme dates of arrival and departure of transient visitants, from data collected at Glen Ellyn, Illinois, during the past eight years: April 1, Turkey Buzzard;* 1-8, Lesser Scaup Duck;* 1-22, Wilson's Snipe;* April 2 to May 5, Loon;* April 2 to May 10, Winter Wren; April 2 to May 19, Blue-winged Teal;* April 4, Tufted Titmouse;* April 4 to May 16, Sparrow Hawk;* April 8-27, Hooded Merganser;* April 8 to May 18, Myrtle Warbler; April 8 to May 24, Pine Siskin; April 9 to May 20, White-throated Sparrow;* April 10-19, Greater Scaup Duck; April 10 to May 25, Broad-winged Hawk;* April 11 to May 10, Pectoral Sandpiper; April 14, Green-winged Teal* and American Coot;* April 14-17, Red-throated Loon; April 14 to May 25, Water Thrush;* April 15, American Pipit; April 15-26, Great Blue Heron; *April 15 to May 5, Yellow-Legs;* April 17-24, Pine Warbler;* April 19, Bufflehead Duck; April 19 to May 21, Whip-poor-will;* April 23 to May 13, Palm Warbler; April 23 to May 30, Olive-backed Thrush;* April 24 to May 21, Red-breasted Nuthatch;* April 24 to May 25, White-crowned Sparrow; April 24 to May 29, Wilson's Thrush;* April 27 to May 21, Solitary Sandpiper;* April 27 to May 25, Nashville Warbler;* April 28, Bald Eagle;* April 28 to May 26, Swamp Sparrow;* April 29 to June 4, Black-throated Green Warbler;* April 30 to May 9, Cape May Warbler; April 30 to May 21, Ruddy Duck;* April 30 to May 26, Tennessee Warbler; May 1-21, Orange-crowned Warbler; 1-23, Black-and-white Warbler;* 1-28, Alice's Thrush; 2-27, Black-throated Blue Warbler; 2-30, Black-poll Warbler; 3-28, Parula Warbler;* 4, LeConte's Sparrow and Least Sandpiper; 4-18, Golden-winged Warbler;* 4-25, Magnolia and Blackburnian Warblers; 5-16, Bank Swallow;* 6-21, Willow Thrush; 6-26, Canadian Warbler;* 7, Kirtland's Warbler; 7-30, Wilson's Warbler; 8-23, Bay-breasted Warbler; 9-18, Blue-headed Vireo; 12, American Merganser; May 12 to June 8, Connecticut Warbler; May 13, Wood Duck* and Prothonotary Warbler;* 13-27, Olive-sided Flycatcher; 15, American Osprey;* 18, Philadelphia Vireo;* 18-27, Mourning Warbler;* 19, Harris' Sparrow, Belted Piping Plover*(?) and Forster's Tern;* 20-25, Yellow-bellied Flycatcher; 21, Yellow-headed Blackbird;* May 24 to June 5, White-eyed Vireo.*

Latest dates of departure of winter residents and early spring migrants: March 17,

*Summer resident in northern Illinois.

Northern Shrike (should have been included in the notes for February and March); April 7, Mallard* and Pintail Ducks;* 17, Herring Gull; 19, Fox Sparrow and Short-eared Owl;* 23, American Rough-legged Hawk; 25, Tree Sparrow; May 2, Purple Finch;* 5, Canada Goose* and Golden Plover; 7, Hermit Thrush; 8, Junco, Ruby and Golden-crowned Kinglets; 12, Sapsucker; 15, Sharp-shinned Hawk;* 16, Lapland Longspur; 19, Brown Creeper; 24, Ring-necked Duck.*

APRIL AND MAY BIRD-LIFE AT STOCKTON, CALIFORNIA†

BY LYMAN BELDING

BIRDS OF THE SEASON

April Migrants.—April 1–10, female Bullock's Oriole and increase of earlier arrivals, Black-chinned Hummingbird, Rufous Hummingbird, Ash-throated Flycatcher, Western Chipping Sparrow, Yellow Warbler, Black-throated Gray Warbler, Townsend's Warbler, Hermit Warbler, Pileolated Warbler; April 20–30, Black-headed Grosbeak, Lazuli Bunting, Louisiana Tanager, Cassin's Vireo, Least Vireo, Lutescent Warbler.

May Migrants.—Western Wood Pewee, Western Flycatcher, Little Flycatcher, Hammond's Flycatcher, Wright's Flycatcher, Western Blue Grosbeak, Russet-backed Thrush.

Most of the following are often met with during the spring migration: Northern Phalarope, Long-billed Dowitcher, Least Sandpiper, Red-backed Sandpiper, Western Sandpiper, Greater Yellow Legs, Yellow Legs (rarely), Western Willet, Spotted Sandpiper, Long-billed Curlew, Hudsonian Curlew, Black-bellied Plover, Semipalmated Plover, Snowy Plover.

The following abundant winter visitants leave us about May 1: Intermediate Sparrow, Golden-crowned Sparrow, Junco, Townsend's Sparrow, American Pipit. Most of the northern breeding Ducks and Geese leave us prior to May.

SUGGESTIONS FOR THE SEASON'S STUDY

Birds and Seasons.—Compare the preceding outlines of the characteristics of the bird-life of Boston, New York, etc., with their accompanying lists of April and May birds.

Migration.‡—Too much time cannot be spent in the field during the migration. If possible one should go out both in the early morning and late afternoon, visiting as great a variety of ground as opportunity permits. A knowledge of what birds to expect greatly increases the probability of seeing a species on or soon after its arrival.

Weather conditions should be observed as closely as the migration itself, and the charts issued by the Weather Bureau, at Washington, should be studied. The blooming of plants, shrubs and trees and the advance of vegetation in general, together with the appearance of various forms of insect life, calling of hylas, etc., should all be closely noted and these phenomena recorded with as much detail as the arrival of birds.

The record of each migrant should show when it was first observed, the number seen, giving, if possible, the sex, if in song on arrival, if migrating singly, in scattered companies or in flocks, if observed to migrate during the day. Succeeding observations of the same species should be entered with as much detail as the first one in order to ascertain its increase or decrease in numbers.

* Summer resident in northern Illinois.

† The notes here given refer to the country within a radius of fifteen miles of Stockton. These data being designed wholly for popular use, it has not been deemed necessary to employ the latest subspecific names.

‡ See also BIRD-LORE for February, 1901.

after the first column of names, that is "Date," "Start," etc. Knowing this, one may leave the needed number of pages before entering the second column of birds' names.

Such a record should begin first with a list of Permanent Residents following "Remarks"; then should come Winter Residents, and migrants may be added as they are observed. Of course as the season advances less pages should be left. When the migration is ended a new series of records should be begun, beginning with "Date," "Start," etc., then entering the Permanent Residents and after them the Summer Residents.

These roll books are easily kept and their contents form graphic records of the rise and fall of the migration, showing when a species was first observed, when it was most numerous, and, if transient, when it was last seen.

If possible the approximate number of birds seen should be given, and in recording other details noted above a simple system of abbreviations may be employed. For instance, a number enclosed in a circle implies that the birds seen were in a flock; S indicates singing; the signs, ♂ or ♀, male or female respectively, while an asterisk refers to your journal of the same date wherein you may enter some observation at length. Whatever system of abbreviations is adopted, however, should be fully explained in the opening pages of your roll book.

SUGGESTIONS FOR THE SEASON'S READING

Thoreau: 'Spring,' in 'Walden,' 'Early Spring in Massachusetts.' Burroughs: 'The Return of the Birds' and 'Spring at the Capital' in 'Wake Robin,' 'April' in 'Birds and Poets,' 'A Spring Relish' in 'Signs and Seasons,' 'Spring Jottings' in 'Riverby.' Torrey: 'A Bird-Lover's April,' 'A Month's Music' in 'Birds in the Bush,' 'A World of Green Hills,' 'Spring Notes from Tennessee.' Flagg: 'April' in 'A Year with the Birds.' Bolles: 'Land of the Lingering Snow.' Keeler: 'April in Berkeley,' 'Berkeley in May' in 'Bird Notes Afield.' Wright: 'A New England May-Day' and 'When Orchards Bloom' in 'The Friendship of Nature.' Crockett: 'April' and 'May' in 'A Yearbook of Kentucky Woods and Fields.' Parkhurst: 'April' and 'May' in 'The Birds' Calendar.'



What bird is this?

Field Description.—Length, 6.25 inches. Upper parts brownish; wings and tail darker; outer tail-feathers tipped with white; a whitish line over the eye; under parts whitish, with dark streaks.

The species figured in February is the Pine Finch.

For Young Observers

THE A B C OF BIRD-LORE

BY ELIZABETH HOPPIN LEWIS



A is for *Auk*, now extinct, we are told.



B is for *Blue-jay*, so handsome and bold.



C is for *Cat-bird*, who mocks everything.



D is for *Dick-cissel*, and how he can sing!



E is for *Eagle*, who sees far away.




F is for *Fly-catcher*, silent and gray.





G is for *Goldfinch*, a gallant young man.




H is for *Hawk*, who will hunt if he can.


 I is for *Indigo bird*,
you must know.


 J is for *Junco*, who
comes with the
snow.


 K is for *Kingfisher*,
hatched in a hole.


 L is for *Lark*,
and he sings a
long role.

 M is for *Marsh-
wren*, who war-
bles all day.

 N is for *Nuthatch*. "Quank,
quank," hear him say?

 is for *Oriole*,
nest like a
hood.

 is for *Pewee*, the
voice [of the
wood.

 's for the bird that we
eat, called a *Quail*.



is for *Redstart*
and *Robin* and
Rail.



is for *Sparrow*, too
many for choice.



is for *Thrush*, with a
glorious voice.



is the long Latin
name for a
Loon.



is for *Vireo*, voice
of high noon.



's for *Warblers*, the
gay butterflies.



is a *Gull*; if you
know him you're
wise.



is a *Yellow-*
throat, with a
black mask.



's a poor *Mourner*, who
makes life a task.

Notes from Field and Study

The Brown Creeper's Force of Habit

My office is on the fifth floor of a building in a thickly built up portion of Philadelphia, and not the sort of place where one would expect to see much in the way of birds. But late in the fall, while our winter birds were still coming from the north, a Brown Creeper, exhausted or temporarily disabled, was discovered one cold day huddled up in a bunch, lying on the window-sill against the sash of one of my windows.

The man who discovered it supposed it to be a kind of mouse, but when I slowly opened the window and gently placed my hand over its tiny form, its head popped up and it at once made itself known. It was apparently too weak to make much of a flight, but the warm room infused new life into the little creature, and after remaining on the window-sill a few minutes, he hopped to the end of the sill and climbed up the varnished sash to the meeting rail, where I saw he was attracted by a fly walking on the glass. He had forgotten his ailments, having been lured away by the appetizing dipter. As the fly kept out of reach, I volunteered assistance, and the Creeper took the dainty morsel from my fingers as contentedly as though he understood the situation as well as I did. Food was scarce at that time of the year, and but three or four flies could be found, all of which went quickly down the red lane.

Two or three hours later, the boys put on their coats and bid good-night, leaving me until the last. I had actually forgotten all about the bird, and would have gone home without it, had it not for the first time flown across the room and alighted on the lower end of my overcoat just as I was about to close the door behind me. He had evidently seen his friends vanishing, and had decided at the last moment to remind me that he would please like to have some more flies. Under the circumstances, I was his only source of supply, and this

remarkable intelligence so touched me that by the time he had climbed up to my shoulder I placed my hand over him again and decided to make him, if possible, a household pet.

All the way home I guarded my pocket with great care, and upon arriving there and liberating him from his close quarters, he seemed just as tame and natural as ever. I had not hurt him in any way, and he took small pieces of earthworms and flies from my hand without the least fear.

His natural habit of always flying downward and climbing upward in searching for food was most surprisingly illustrated, for just as in nature, he would fly across the room and invariably alight close to the bottom of the curtain, for instance, and then would make his way gradually to the top, looking for something to eat among the folds. Several times he alighted on my trousers, just above my ankles, and climbed all the way to the top of my head, only to drop off again to the table cover or one of the chairs.

The next morning I brought a stump from the woods, and with healthy vigor he pulled away at the decayed portions and extracted the larvæ, etc., that were hiding there.

One night I took him to see a friend, and when I let him climb up on to my neck in the car, a man behind exclaimed, "Say, there's a bug on your back!" He was just as much at home in my friend's house as elsewhere, and exhibited his characteristic flight, climbing up all the curtains, hunting for food as usual.

I kept him but three days; and partly because I had not the time to hunt insect food, and partly because I thought he would be happier free again, I opened the window and let him go. He flew immediately to a large pine on the lawn, where I soon lost sight of him.—WM. L. BAILY, *Ardmore, Pa.*

A Birds' Bath

There is no better way to attract birds about our homes during the summer than to supply them with water for drinking and bathing.

The accompanying photograph shows a bath which evidently met with the approval of most of the birds in the vicinity of my



A BIRDS' BATH

house in the summer and autumn of 1900, it being patronized even by Screech Owls. It is made of bricks and cement and in cross-section resembles the appended diagram:



Boards may be used to form partitions, which should be filled with earth. The plants introduced were sagittaria, iris, yellow pond lily, wild rice, duckweed and water hyacinth.

The pond is filled with a hose and replenished as evaporation requires.—FRANK M. CHAPMAN, *Englewood, N. J.*

Buried Treasure

On February 10, 1901, I observed a rather amusing incident. The snow was nearly a foot deep here on that day and the weather had been quite cold for some time. I was walking through a small piece of woods in search of birds, when I noticed a commotion near an embankment where the snow had drifted to a considerable depth. On drawing near I found a large number of Chickadees, White-breasted Nuthatches and Downy Woodpeckers assembled, the former most in evidence. All the birds seemed much interested in something in the snow, for one after another would fly down, then back into the low trees, in the meantime keeping up a busy chattering. I went forward to examine the object of their curiosity and found that they had hollowed out a hole in the snow the size of a large bowl. I scraped the snow aside, but could find nothing unusual. My interference was strongly resented by the birds, who raised a great disturbance, several of the Chickadees almost flying in my face in their rage. I was finally obliged to leave without solving the mystery.

Just one week later I visited the place again. It had snowed since my former visit, but on reaching the spot I found a much deeper hole and the same flock of birds, reinforced by several Blue Jays and a pair of Red-bellied Woodpeckers. This time I made a closer examination and detected something yellow at the bottom of the hole which, on being brought to light, was found to be a piece of butter. More scraping revealed more butter, and when all the snow was cleared from the spot it was found that a large round hole had been made in the earth in which had been placed about fifteen pounds of good sweet butter. The stuff had evidently been placed there by thieves, but the birds had detected the plunder, and it was high living for the feathered inhabitants of the woods. I later found that the pair of Red-bellied Woodpeckers had carried about half a pound to a cavity in a large tree, which they were hoarding for future use.—W. O. DOOLITTLE, *Painesville, Ohio.*

Book News and Reviews

THE BIRD BOOK. By FANNIE HARDY ECKSTORM, Boston, U. S. A., D. C. Heath & Co., 1901. 12mo. Pages xii + 276. Ills. 56. Price, 60 cents.

We believe that the author of this book has accomplished the far from easy task of making a desirable addition to the literature of popular general ornithology. While she appears to be thoroughly familiar with what has previously been written and has often made use of it, her treatment of her theme is distinctly original. In other words, her book is not a compilation along well-worn paths, but an independent expression of opinion.

The book is designed for the primary teacher, and the author's estimate of the educational value of bird study shows in a few words such a comprehensive grasp of its potentialities that we are tempted to quote it. She says: "If we adopt bird-study as the representation of zoölogical science, as we seem likely to do, it must be not only because it is fairly illustrative of zoölogical principles, and because its materials are abundant and easily referred to, but because it is pleasurable to beginners.

"Bird-study, or any other special science, is justified in demanding an educational hearing if it contribute generously either to a knowledge of the principles and methods of science in general or to the training of the powers of observation." (Preface.)

The subject matter is somewhat unusual for a first book of birds' and seems to us to be better for young ornithologists than for young people whose interest in birds should be fed on simpler, more palatable food. The first 57 pages are devoted to water birds, few of which come within the range of a child's observation, with the object, it is said, of giving the student "some notion of the breadth of the subject." Part III, 43 pages, on 'Problems of Bird-Life,' is excellent, but, as before said, seems more suitable for ornithologists than

for beginners, such subjects as 'Zoögeography,' 'Subspecies,' etc., being somewhat advanced for the student who perhaps does not know a dozen birds. Part II, 'Structure and Comparison,' and Part IV, 'Some Common Land-Birds,' are admirable; an Appendix has sections on the zoögeographical divisions of the world, with a map of the chief divisions in North America, 'Hints on Observing Birds,' 'Hints on Identifying Strange Live Birds,' 'Certain Questions Answered' (e. g., Shall a school own mounted birds? Is there any substitute for collections?), and 'Lists of Books.'

The author's well-known experience as a practical ornithologist gives its due value to her work and ensures accuracy of statement. We note, however, one or two slips. Pigeons, for instance, are not the only birds that drink without removing the bill, Sand Grouse resembling them in this respect; nor is the eastern "Bronzed Grackle," a subspecies of the western bird; the Grackle of New England, except in the southern part, being the same as that of the Mississippi valley.

The pen and ink full-page drawings of birds are good only when the artist is indebted to Seton-Thompson or J. L. Ridgway, an indebtedness, however, which is not acknowledged.

Fortunately the value of the book does not depend on its illustrations, and we take pleasure in commending it most heartily to all bird students.—F. M. C.

BIRDS OF WESTERN NEW YORK. By ELON HOWARD EATON. Proc. Rochester Acad. Sci., IV, pp. 1-64, Feb., 1901.

This excellent paper contains brief sections on the faunal areas of western New York, a Bibliography, 'Migration and Residence' tables, an annotated list of the 297 species known to occur, and a 'Hypothetical List' of species which may occur.

The 'Migration and Residence' table graphically presents in a clear, simple and

effective manner the relative abundance of, and season of occurrence, of the species treated, and is well worthy of imitation. The annotated list tells of a species' manner of occurrence, and the character of the ground in which it is found. The author's long experience in the region and thorough grasp of his subject makes his work authoritative. The diversity of views, however, in regard to the breeding Shrike of Western New York has led him into the error of including both the Loggerhead and White-Rumped Shrikes. Doubtless the best way out of this difficulty is to accept Mr. Palmer's name of *migrans* for the intermediate New York and New England form. The hypothetical list would be improved by the exclusion of the Man-o'-War Bird, Masked Duck, Corn Crake, European Woodcock, Burrowing Owl and other species whose occurrence would be wholly accidental.

These criticisms are of minor importance, and the list will at once take its place as a standard treatise on the birds of the region covered.—F. M. C.

A YEAR BOOK OF KENTUCKY WOODS AND FIELDS. By INGRAM CROCKETT. Illustrated by the author. Buffalo. Charles Wells Moulton, 1901. 16mo, pp. 112; 4 full-page plates.

The rise and fall of a Kentucky year are here graphically depicted in twelve prose poems, one for each month. The author is evidently a passionate nature lover—earth, air, and water and all that in them is, appeal to him; but from the first bird note of spring to the last one of autumn, it is the songs of birds more than anything else that echo through his pages. We welcome this book from the south. Would that more of her sons were moved to tell the world of the beauties of their native land.—F. M. C.

PACIFIC COAST AVIFAUNA, No. 1. BIRDS OF THE KOTZEBUE SOUND REGION, ALASKA. By JOSEPH GRINNELL. Published by the Cooper Ornithological Club of California. Royal 8vo, pages 1-80; 1 map.

In this paper Mr. Joseph Grinnell presents the most important contribution to the life-histories of Alaskan birds that has appeared

in recent years. A short introduction giving the climate and character of Kotzebue Sound and its affluent streams, especially the Kowak river, on which most of Mr. Grinnell's work was done, is followed by field-notes, a bibliography, map and a checklist in which 150 species are recognized from this region, of which seventeen first appear in this volume.

That Mr. Grinnell was able between July, 1898, and July, 1899, to record 112 species from personal observation under the difficulties attendant on field-work in Alaska, testifies to his zeal as a collector, as do his annotations to his ability as an observer.

Pine Grosbeaks and White-winged Crossbills were found breeding the last of May, and the Alaskan Jay early the same month, all placing their nests between six and twelve feet from the ground in small spruces. The nests of all these were composed largely of spruce twigs; the Grosbeaks' were frail and lined with grasses, the Crossbills' closely felted internally with a black wool-like lichen, and the Jays a well-woven mass of grass, black lichens and feathers, evidently designed to retain as much warmth as possible in below-zero weather. The American Hawk-Owl was found nesting in an enlarged Woodpecker's hole, Short-billed Gulls in trees, and Bank Swallows in ground frozen almost to the point where the nests were situated.

The Shrike of Alaska is separated from *Lanius borealis* as *L. b. invictus* on the basis of larger size, greater pallor and broader white markings, but all the measurements given, with the possible exception of the wings, may be duplicated with the New England specimens.—L. B. B.

The Ornithological Magazines

THE CONDOR.—The opening number of the third volume of 'The Condor' contains ample evidence of the activity of the Cooper Ornithological Club. Among the articles of general interest are Bowles' 'Bird Notes from Tacoma Gulches,' Silloway's 'Flat-head Lake Findings,' Atkinson's 'Nesting Habits of the California Shrike,' and Mc-

Gregor's 'Dichromatism in the Genus *Carpodacus*.' Grinnell's 'Record of Alaskan Birds' in the collection of Stanford University, adds the Wheatear (*Saxicola œnanthe*) to the list of birds of the Pribilof Islands.

Four species or subspecies are described as new, viz., a Leucosticte and a Savanna Sparrow, from Kadiak Island, a Song Sparrow from Sanak Island, Alaska, and the form of Red-breasted Sapsucker which occurs in southern California. Constant differences in closely related birds are always worth recording, but the mere description of supposed new species is not necessarily the most useful form in which to present the results of a critical comparison of specimens. Certainly in one of these cases there is an indication of superficial examination of the literature, and the adoption of a questionable method of fixing the type of an old species. An innovation of very doubtful value is the publication of the first (and we hope last) of a series of caricatures. Such cuts are likely to be misconstrued, even though published in a friendly spirit, and are certainly out of place in a journal of this character.

The Cooper Club is to be congratulated on its good work for bird protection and the firm stand it has taken in behalf of better legislation for non-game birds. Its efforts will be appreciated by bird lovers in all parts of California, in case the bill which the club has prepared becomes a law at the present session of the Legislature.—T. S. P.

THE OSPREY.—It is so long since we have seen 'The Osprey' that we are glad to welcome the first two numbers of the current volume, dated, respectively, September-October, 1900, and November-December, 1900, which have appeared since our last issue went to press. Each opens with an original article by Paul Bartsch; one on the birds found in and about the wild rice (*Zizania*) marshes in the vicinity of Washington, and the other a record of the winter birds seen on 'A Trip to the Zoölogical Park.' He brings out many points of interest, but personally we wish he would keep nearer to the earth, and in his exuber-

ant enthusiasm not allow his expressed thoughts to soar too far above commonplace narrative.

The learned editor continues his valuable sketch of 'William Swainson and His Times,' and in the second number gives us a paper on 'Correspondence of and about Audubon with Swainson.' A continued article on 'The Osprey, or Fishhawk; its Characteristics and Habits,' which will appear in at least three numbers, is the beginning of a series of biographies of American birds by Doctor Gill. There are, also, interesting papers by Milton S. Ray, Verdi Burtch, Addie L. Booker, and Percy Shufeldt, on 'Observations in Central Monterey County;' 'A Grosbeak Colony;' 'The Mockingbird in Western Kansas and its Environments;' and 'Notes Regarding the Migration of Birds as Observed at the Washington Monument.'

We should like to see the letter-press and illustrations brought up to a higher standard, and have it explained why, with such a constellation of renowned editors, we are able to find a page disfigured with a dozen or more typographical errors.—A. K. F.

THE WILSON BULLETIN, No. 33.—In this number Lynds Jones and W. L. Dawson record their ornithological observations made during a two months' trip of 7,000 miles through fourteen states and territories. There is much of interest in the itinerary, as well as in the twenty-seven separate lists which are records made at certain points or between given places on the railroads traversed. Watching birds from the car windows is a fascinating pastime, and one which we have followed for over twenty-five years. Still it has its drawbacks and vexations, in that it is not justifiable to publish records of unusual occurrences made under such uncertain conditions, on account of the chance of error. From the standpoint of geographic distribution it is unfortunate, though probably through no fault of the authors, that the trip was not undertaken earlier, and thus enable the observations to be more nearly an index to breeding species in the localities visited. We heartily commend this number.—A. K. F.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Published by THE MACMILLAN COMPANY

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Bird-Lore's Motto:

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

'THE OUTLOOK' for December 1, 1900, published a series of ten short articles on the ten books which have most influenced the thought and activities of the past century. The writers included James Bryce, Edward Everett Hale, Henry van Dyke, Arthur T. Hadley, Thomas Wentworth Higginson and other representative men of the day, each of whom presented a list of the ten books produced during the past one hundred years, which, in his opinion, had been most potent in the advancement of mankind.

We do not propose to analyze the lists given or even to mention the works contained in them, but we cannot refrain from calling attention to the fact that the only book given in each of the ten lists was Darwin's 'Origin of Species.'

What an unparalleled tribute, this, to the patient, tireless, conscientious, gentle naturalist, whose labors, in spite of continuous ill-health and discouragements, which would soon have disheartened a less courageous seeker after truth, are thus virtually declared to be the dominant factor of the nineteenth century in the elevation of his race.

With what satisfaction the naturalist reads the estimate of these ten eminent men, not one of whom is a biologist, of the value

to humanity of 'The Origin of Species'! No matter how humble be one's part, how insignificant one's achievements, what an inspiration it is to feel that one is working at the same structure of which Darwin laid so stable a foundation!

DURING the past few months the legislatures of a large number of states have paid unprecedented attention to proposed laws designed for the protection of non-game birds. The whole movement aptly illustrates Thoreau's remark, "What a wedge, what a beetle, what a catapult is a man in earnest; what force can withstand him?"

The man, or rather men, in this case, are William Dutcher, representing the committee on bird protection of the American Ornithologists' Union, and T. S. Palmer, of the Biological Survey of the United States Department of Agriculture, in charge of the enforcement of the Lacey law. It is due to the energy of these gentlemen, and the support of Audubon and other societies, as well as of individuals, which they have enlisted that the model A. O. U. bird law, with but slight modifications, has been passed by the legislatures of Maine, New Hampshire, Delaware, Wyoming and in the District of Columbia. The same admirable law, or amendments to existing laws, have been introduced into the legislatures of Massachusetts, Connecticut, New Jersey, North Carolina, Michigan, California and Oregon, and are still (March 16) under consideration.

The New York state law has been so amended that the "web-footed wild fowl" of the old law are now defined as "Ducks, Geese, Brant and Swan," thereby excluding Gulls, Terns and Grebes from the list of birds which may be legally killed between certain dates and consequently bringing them under that section of the law applying to birds which may not legally be killed or possessed at any time. The passage of this amendment is of far-reaching importance. Supported by section five of the Lacey law, its enforcement means that the plumage of Gulls, Terns and Grebes cannot be sold in New York state, while its influence on the trade in the feathers of these birds will doubtless be felt throughout the country.

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 (President of the Audubon Society of the State of Connecticut), Fairfield, Conn., to whom all communications relating to the work of the Audubon and other Bird Protective Societies should be addressed. Reports, etc., designed for this department should be sent at least one month prior to the date of publication.

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Notes

The work of a far-seeing Connecticut gentleman, Mr. E. Knight Sperry, in securing the coöperation of farmers in allowing their lands to be, without interference to cultivation, banded in retreats where, in addition to protection, game birds may find food in the hungry season, has suggested a work on similar lines that may be done for non-game and song birds and at the same time give an added field of labor and interest to all protectionists.

This topic will be fully discussed in the next issue of BIRD-LORE.

Acting on a suggestion made in this department in December, 1899, Dr. T. S. Palmer has kindly sent BIRD-LORE the following admirable statement of the legal status of birds.—M. O. W.

Some Fundamental Principles of Bird Laws

BY T. S. PALMER

Adequate laws necessarily form the foundation of effective bird protection.

But it is not enough merely to enact laws; they must be enforced and doubtful points must be settled by the courts. The bird laws of the United States, usually called game laws, are of two kinds (*a*) State or local laws and (*b*) Federal laws.

State laws prescribe the kinds of birds which may or may not be killed, the time and manner in which they may be taken, and the purpose for which they may be captured. Thus the Illinois game law defines game birds and prohibits the killing of other birds at any time. In providing for game it fixes a definite season for shooting quail and ducks, but forbids the killing of ducks at any season from a sail boat, with a swivel gun, or after sunset; furthermore it declares that it shall be unlawful to capture quail in the State for sale, or to ship to other States except under license. In all these matters the State is supreme and violations of its laws are tried in the State courts.

The Federal law, commonly known as the Lacey Act, or the Act of May 25,

1900, deals merely with the shipment of birds from one State to another and the importation of birds from foreign countries. It is general in its provisions and does not mention special birds, but nevertheless supplements the State laws very effectually. Thus if a State prohibits the killing of any particular bird, the shipment of the bird out of that State is an offense under the Federal law and the shipper, carrier, and consignee, each or all, may be prosecuted in the United States courts.

Some of the principles on which these laws are based may be stated very simply as follows:

(a) STATE LAWS

1. All wild birds are the property of the State, hence:

2. Killing birds is a privilege, not a right.*

3. State ownership of birds carries with it the right to impose restrictions, hence:

4. Birds may be captured, possessed, transported, bought or sold only under such conditions as the State prescribes.

5. Land-owners have no more right to kill birds out of season than other persons, unless the law specifically grants this privilege.

(b) FEDERAL LAW

6. Birds are protected by the Federal law only when shipped from or into a State which protects them by a local law.

7. Birds killed or shipped contrary to law in any State cannot lawfully be transported to other States.

8. Birds brought into a State become subject to its laws in the same manner and to the same extent as birds produced in that State.

9. Packages of birds shipped from one State to another must be marked so as to show the name of the shipper and the nature of the contents.

10. Foreign birds can be imported into

*Michigan (Acts of 1893, p. 312) and Minnesota (Laws of 1897, p. 413) declare that birds protected by law shall always remain the property of the State. When their killing is not prohibited, they may be used in the manner and for the purposes authorized, but not otherwise.

the United States only under permit from the U. S. Department of Agriculture, and birds declared injurious by the Secretary of Agriculture cannot be imported into the United States or shipped from one State to another.

Simple as these propositions may seem, they have been the cause of much discussion. Most of them, however, have been passed upon by the higher courts and are no longer open to question. The right of the crown to all wild game was established in England years ago and the State ownership of game now clearly stated in the laws of Colorado, Illinois, Michigan, Minnesota, Texas and Wisconsin is an inheritance from the English common law. The Supreme Court of the United States has upheld this claim as well as the right of a State to prohibit killing game for sale (125 U. S. 465), or export (Geer v. Connecticut, 161 U. S. 519)*.

Possession of birds out of season was long regarded merely as evidence of illegal killing, but is now made an offense punishable by fine in several States. The right of a State to make laws regarding birds imported from other States has been vigorously contested and has been variously decided by the courts, but the question has now been practically set at rest by the passage of the Lacey Act. Some States have hesitated to encroach upon the rights of the individual, as shown by the exception in favor of land-owners in the section of the Delaware law relating to insectivorous birds, and also by the provisions in the laws of Illinois, Kansas, Kentucky, Louisiana, Ohio, and South Carolina, which permit a person to kill birds found destroying fruit on his own premises. On the other hand, Massachu-

*Those who are interested in practical bird protection should read the decision of the Supreme Court in Geer v. Connecticut, which is one of the most comprehensive decisions on game law ever written. It has been reprinted in full in 'Forest and Stream,' XLVI, pp. 209-211, March 14, 1896, and also in 'Game Laws in Brief,' I, pp. 114-130, April, 1899. A brief but excellent popular review of 'Game Laws' by Chas. E. Whitehead may be found in 'Hunting in Many Lands' (Boone and Crockett Club series) New York, 1895.

setts declares that game artificially reared shall be the exclusive property of the person raising it, but forbids the owner to sell it for food during close seasons. Illinois exacts a \$10 hunting license from non-residents, even though they lease or own a game preserve within the State, and Wyoming in the famous 'Race Horse case,' carried up to the Supreme Court in 1896, has successfully maintained her right to compel Indians to obey her game laws (163 U. S. 504).

During the last fifty years, the sentiment in favor of bird protection has developed rapidly. Many laws have been enacted, amended, and sustained by the courts. That these laws are still imperfect is partly the result of carelessness and partly of strong opposition due to ignorance or selfishness. Our game laws, unlike those of Europe, are maintained for the good of the people as a whole, not for the benefit of any one class, and their enforcement depends very largely on a general appreciation of the principles upon which they are based.

Reports of Societies

MASSACHUSETTS SOCIETY

The Massachusetts Audubon Society is now five years old. There are abundant proofs that it has been an important agent in increasing an interest in the study and protection of birds; and it is rapidly acquiring an equipment of permanent service to bird students. While there are many friendly critics who protest that our methods are too general and that we lack aggressive force, we are convinced that the society has made for itself a firm place in the affections of a large number of people, and is already a respected institution of the state.

Last winter the society took active measures to aid the passage of the legislative bill for "making Sunday close season for birds and game." This winter a bill was presented to repeal this very beneficent law; again the society made earnest effort to defeat the measure. The society has also done excellent duty in influencing the legislature, affecting two

other important bills relating to bird protection.

Our register now numbers 3,334 persons: of these 42 are life associates, having paid \$25; 530 are associates, paying \$1 annually, and 502 are junior members, persons under sixteen years, and having paid 10 cents; the others are life members, having paid 25 cents.

We have issued thirty-three different publications; many of these have been freely distributed throughout the country; other publications dealing with bird protection we have secured by purchase or gift for distribution. Our two Audubon Calendars have been favorably received; a third is in preparation with original drawings by the same artist; this will be issued in time for the 1901 Christmas sales. We issued the second chart of common birds last August. The sale of the charts had not been as large as was anticipated, probably because we have not been able to properly advertise them.

Last winter the society arranged with Mr. Frank M. Chapman to give his lecture "Bird Studies with a Camera." His large audience greatly enjoyed the lecture, the proceeds of which added to our treasury. This winter the society secured Mr. Ralph Hoffmann for a course of six lectures; his subjects are, Winter Birds; Early Spring; The Month of May; Nesting Time; Summer Ornithology; Birds and Man. The lectures are well attended by an appreciative audience. We expect that a lecture course will be an annual feature of the societies' work.

February 1, of this year, our traveling lecture started on its journeys. The lecture is entitled "An Invitation to Bird Acquaintance," and was written and donated by Mr. Hoffmann. A lantern and fifty slides make up the outfit. The slides were made from negatives presented by Messrs. Herbert K. Job, Lyman Underwood, Herbert W. Gleason, James H. Emerton, Robert S. Morrison. Already it has visited, or is booked to visit, over fifty schools, clubs and societies. The lecture is sent free to any responsible person in Massachusetts who guarantees its safe return and will

pay all expense of carriage. We are obliged to refuse, for the present, all calls for the lecture outside of Massachusetts. Without doubt a traveling lecture should be a part of the equipment of every Audubon Society.

A friend has agreed to give the society \$50 annually, to be devoted to prizes to junior members. This year the committee have decided to award it in four prizes: viz: \$20, \$15, \$10, and \$5, for the best drawing of a Bobolink in full summer plumage.

It gave us pleasure last autumn to welcome the first conference of state Audubon Societies, which was held at the Agassiz Museum, Cambridge, the afternoon of November 15. Delegates were present from Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, Pennsylvania, District of Columbia, New York, Rhode Island and West Virginia. Mrs. William Brewster and Mrs. Frank Bolles entertained the delegates and officers, with prominent members of the A. O. U., at receptions on the evenings of November 12 and 14. Mr. Chapman invited the societies to meet in a second conference November 11, 1901, in New York city.

There are many problems that the Audubon Societies have in hand that can be solved only by persistent and united effort of all the state societies. A committee has been chosen to arrange for a national federation of the societies, and a full attendance at an annual conference by delegates from all the societies would, in a few years, consolidate and strengthen the work and raise it to a powerful position throughout the country.

HARRIET E. RICHARDS, *Sec'y.*

Meeting of the New York Society

At the annual meeting of the Audubon Society of New York state addresses were made by Charles R. Skinner, State Superintendent of Public Instruction, T. S. Palmer, William Dutcher, and Frank M. Chapman.

Mr. Skinner's address on "The Educational Value of Bird Study" showed a thorough appreciation of the pleasure and the mental and moral profit which may come from an acquaintance with the birds

about us. He said "the value of any study is the use we make of it," and after expressing his belief that a practical education which would fit us to enjoy nature as we daily come in contact with it was of more importance than special or technical training in certain details, added, "I believe it to be more essential to the happiness of our children to teach them to know our native birds, flowers and trees than to tell them stories in Latin and Greek of events that happened 2,000 years ago."

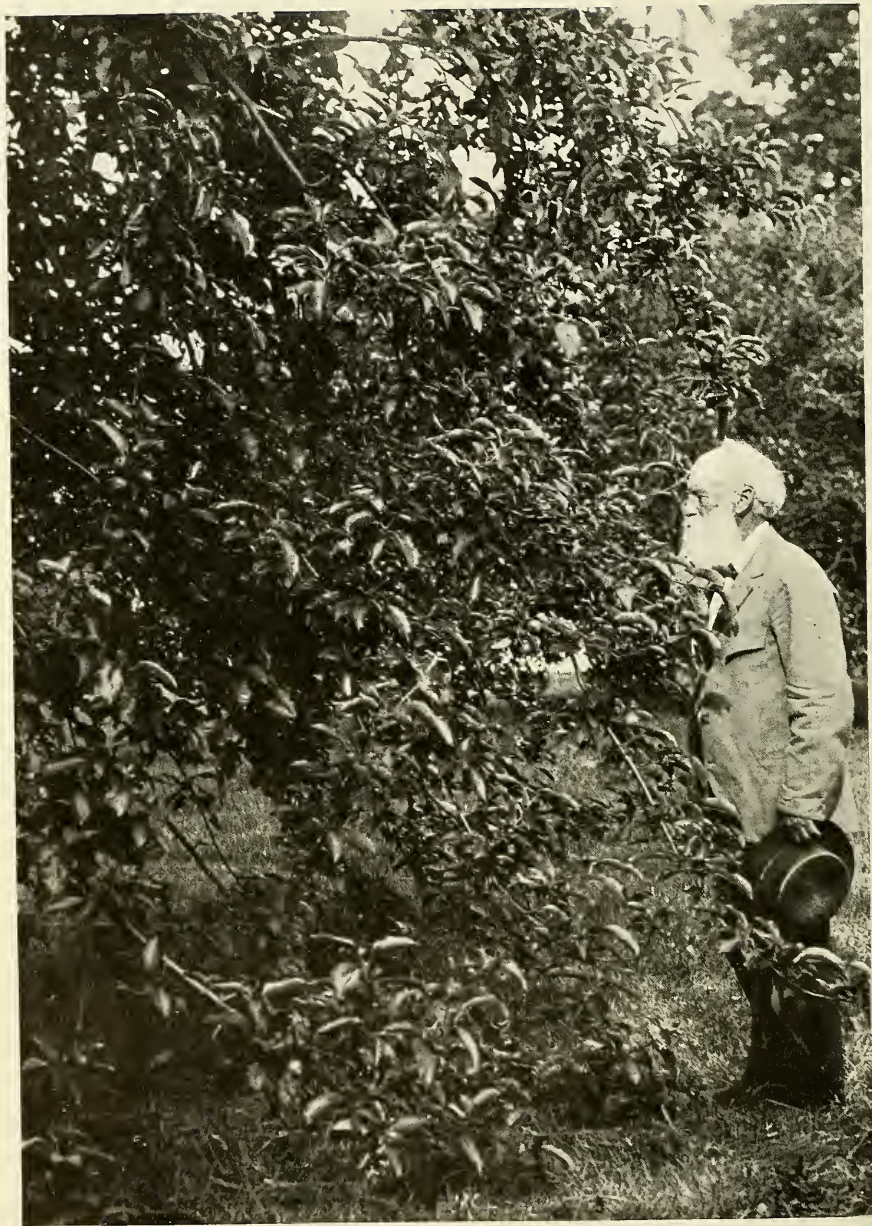
Dr. Palmer presented an admirable review of the history of bird laws in this country and explained the powers of the Lacey Act, particularly in its relation to state laws. Contrasting present conditions with those which prevailed at the opening of the nineteenth century, it was shown that the only bird law then in force in New York state was one protecting Heath Hens, Ruffed Grouse, Bob-White and Woodcock on Long Island and in New York county, while now scarcely a state or territory was without laws designed to protect song, as well as game birds.

Mr. Dutcher spoke on the subject of practical bird protection, and illustrated its results, as well as his remarks, with a series of views from nature made by himself on the coast of Maine in July, 1900, while visiting the colonies of Herring Gulls which were under the protection of wardens employed through the Thayer Fund.

Mr. Chapman, in proof of the work accomplished by the Audubon Societies, compared the fashions of fifteen years ago, when our native song birds could be seen on almost every other hat, with their practically complete absence today. He also attributed the present wide-spread interest in bird study largely to the efforts of the Audubon Societies.

The Audubon Conference Committee

Dr. C. S. Minot, presiding officer of the first Audubon Conference, has appointed as a Conference Committee for the joint meeting of the Audubon Societies to be held in New York city, in November, 1901, H. C. Bumpus, F. M. Chapman, and Ralph Hoffmann.



LANDLORD AND TENANT

(See page 90)

Bird = Lore

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

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. III

MAY — JUNE, 1901

No. 3

A Bewildered Phœbe

BY JOHN BURROUGHS

With photographs from nature

I HAD a good illustration last summer of how limited the mother-wit of a Phœbe bird is when new conditions and surroundings confront her. A pair of these birds had annually built their nest in a little niche in a ledge of rocks near my 'Slabsides,' or rather several years ago they built a nest there, and as there was no room for a second nest, each subsequent spring they had repaired and refurnished the old one and reared their brood in it. It was in a lonely place, at the mouth of a deep recess in the ledge, and I thought quite secure from all creeping and climbing enemies of the birds. A thick growth of small trees formed a screen in its front, to hide it from the eye of winged marauders, and no snake or squirrel could reach it from the rock itself.

When the nest contained three or four eggs I allowed a young friend of mine to take one for his collection. This intrusion seemed to invite disaster, for in less than a week the eggs were all gone and the birds had deserted the place. A new stone house had been built upon the rocks above me, with a piazza all around it, covered by a continuation of the main roof down the required distance. After much inspecting of this piazza the birds concluded to build a nest upon the plate beside one of the rafters. Now this plate was about thirty feet long and there were ten rafters notched upon it, and hence ten places exactly alike. The bird selected the fourth rafter from the end nearest the woods, and began her nest upon the plate beside it. She was in a great hurry and worked 'on the jump,' so to speak. She got her mortar in the ditch near my cabin. One morning I watched her for some time. She made a trip every minute carrying her load up a steep grade about one hundred yards. The male looked on and cheered her, but did not help. He perched upon a dead sunflower stalk near the ditch, flirted his tail, and said, or seemed to say, 'Go it, Phœbe, you are doing well; you are

the wife for me.' Every trip the mother bird made he would accompany her a short distance and then return to his perch.

As the nest-building seemed unusually prolonged, I went up one morning to the new house to see how matters were progressing. Instead of one nest I found five in process of construction. Some had only the foundation laid, others were an inch or two high, and one was three-fourths finished. I sat down to see what it all meant. Presently the eager builder came with her beak loaded and dropped down upon one of the nest foundations. She seemed to hesitate a moment, as if she had a suspicion that something was wrong, and then put down her material and flew quickly away. The next time she struck the nearly finished nest and



PHEBE ON NEST

put down her load without hesitating. I watched her for half an hour and soon saw how it was with her—why she scattered so. I concluded she was misled by the sameness of the rafters—they were all alike, and whichever one she chanced to hit in her hurry, there she deposited her mortar. She had been used to a ledge where there was but one building site; here there were half a dozen or more, with no perceptible difference between them. So I hit upon a plan to concentrate her—I put blocks of wood or stones in all the nests but one and watched the result. When now she came upon these strange obstacles she would hover about for a moment until she discovered the largest and unincumbered nest, when she would alight upon it and leave her load. She then soon took the hint, finished the one nest, laid her second set of eggs and went forward with the incubation. But the evil fates still pursued her. One

morning the nest was empty. Whether the mother bird, too, was carried off is not known. She was not again seen about the place.

The art of the bird in the new site was at fault in more than one respect; the moss that served to conceal her nest upon the gray mossy rock only emphasized it and made it conspicuous upon the new yellow timber.



A PHOEBE'S NESTING SITES

The Wood Thrush

He has a coat of cinnamon brown,
 The brightest on his head and crown,
 A very low cut vest of white
 That shines like satin in the light,
 And on his breast a hundred spots,
 As if he wore a veil with dots;
 With movement quick and full of grace,
 The highbred manner of his race;
 A very prince of birds is he
 Whose form it is a joy to see.

And *music* — was there ever heard
 A sweeter song from any bird?
 Now clarion-like, so loud and clear,
 Now like a whisper low and near,
 And now, again, with rhythmic swells
 And tinkling harmony of bells,
 He seems to play accompaniment
 Upon some harp-like instrument.

GARRETT NEWKIRK

Bird-Nesting with Burroughs

BY FRANK M. CHAPMAN

With photographs from nature by the author

WHEN two men whose combined years closely approach five-score can go a-bird-nesting with an enthusiasm which knows no decrease, and count mere discovery a sufficient reward for hours of searching, the occupation is evidently worthy of investigation by every boy who would prolong his youth.

I say boy advisedly, for the bird-nesting habit is not to be acquired in later life, and, indeed, had better never be acquired at all if its object be the taking of the nests and eggs. One does not search for a rare or beautiful flower to uproot and destroy it, but to admire it, and to cherish the memory of its perfections until, with returning spring, it renews itself and our delight in its existence.

Bird-nesting, then, does not mean egg-collecting. The latter holds no antidote for age, but loses its powers as gratified desire checks species after species off the list, or increasing years bring a realization of its folly.

Your true bird-nester values his good fortune too highly to rob the nest and himself at the same time. The discovery of a bird's nest is the discovery of a bird's home with all the fascinating possibilities attending the study of a bird's home life. It is an event. One never forgets the circumstances attending the finding of any but the commonest birds' nests. The species then becomes the individual. One may claim an actual acquaintance in the bird world and perhaps establish personal relations with some feathered neighbor, whose family affairs become matters with which we are intimately concerned. Witness Mr. Burroughs' story of his Phœbe neighbor in the preceding pages.

Furthermore, that almost universal heritage, the hunting instinct, finds a natural outlet in bird-nesting. The farmer's boy who hunts hens' nests just to triumph over some particular fowl whose eggs have long defied search, exhibits in primitive form the motive which impels one again and again to look for the nest of a more or less common bird whose home has been discovered many times before. And, finally, as Mr. Burroughs has said, "Bird-nesting is by no means a failure even though you find no birds' nests. You are sure to find other things of interest; plenty of them."

Perhaps, after all, this is the true secret of the perennial charm of bird-nesting. The discovery of the nest is only the crowning event of a quest which has been filled with pleasant incidents. Certain it is that in the outing here briefly described there were "other things of interest" besides birds' nests, and "plenty of them," too. First among them was



HUMMER ABOUT TO FEED YOUNG

yield results of unusual interest or scientific value, and I have nothing more important to record than the mere joy of seeing and discovering objects which never fail to excite a bird-lover's enthusiasm; with the added satisfaction of being able, in some instances, to picture far more graphically than could be done with pen alone, the scenes from bird-life which are here presented.

The difference between casual and continuous observation is eloquently illustrated by our comparative knowledge of the first bird we visited—the Phœbe of whom Mr. Burroughs writes in the preceding pages. To me she was interesting simply as a Phœbe

the presiding genius of 'Slab-sides'; one could not imagine fitter companion with whom to go a-nesting; for be the paradox especially noted that the enjoyments of nest-hunting are doubled when you halve them.

Then there was 'Slab-sides' itself, ideal haunt for man and bird, and round about were inviting wooded hills, with here and there cultivated valleys between them, and, not far away, fields and orchards.

Through these pleasantly varied surroundings, on the morning of June 16, 1900, we wandered, visiting old acquaintances as well as searching for new ones. It was not to be expected that a passing tour of observation and investigation should



HUMMER FEEDING YOUNG

who had occupied a new nesting site the first season it was available and already had become so accustomed to man that she permitted herself to be photographed at short range; but how little I knew is evident on reading Mr. Burroughs' history of her season's experiences. Doubtless he could give similarly interesting accounts of other of his bird neighbors to whom he introduced me that day and the next, and whose portraits I present with only passing comment.

The Hummer, for instance, who, with rare consideration for the needs of bird photography, had placed her nest in the low sweeping limb of an apple tree (see frontispiece), was an old acquaintance of his,



HUMMER FEEDING

and no detail of her domestic affairs, from the building of the nest to the appearance of the young, had escaped him. Acquaintance, I say, rather than friend, for in spite of the fact that her nest was within a few feet of a pathway, the suspicious little creature invariably darted from it whenever any one approached to within twenty feet of her. However, she returned in four or five minutes, sometimes alighting and settling in the nest as though with one movement, at others perching on its edge when the two surprisingly short bills of her half-fledged young could be seen projecting slightly beyond the rim of their downy home. This pose preceded what Mr. Torrey has so well described as the "frightful looking act" of feeding, of which the accompanying picture shows the attitude assumed by the parent.

Just at this point I take occasion to introduce a picture of a Hummer poised before a flower made later in the season, but which serves very well to represent the appearance of Mr. Burroughs' bird while visiting his honeysuckles gathering food for her young. It will be observed that the filmy halo, constituting the wings of the Hummer in flight, does not appear in this picture, and nevertheless it was made, if my focal-plane shutter scale does not prevaricate, in less than a five-hundredth part of a second.

On one occasion we observed another Hummer in the vicinity, a bird that flew directly up to the one on the nest, and evidently looked



HUMMER BROODING YOUNG

her straight in the eyes, but for so small a fragment of time that we do not know whether it was a male or female. At any rate, the bird seemed to be quite familiar with the air-line to the nest, though, as Mr. Burroughs said, it is possible that Hummers may have an eye for Hummers' nests.

Fully as unapproachable was a Flicker, who, when we tapped gently at the base of her home in an old cherry stub, left the exit above with a precipitation defying the speed of a lens shutter. While technically a failure, the picture of her hasty departure, nevertheless, forms an interesting study in the use of the wing in flight. It will be observed that, although a third of the bird still remains in the hole, the wing

is extended to a surprising degree and is already in motion, as is shown by the failure of the lens to record the outer primaries while securing, with some detail, an outline of the secondaries. Indeed, the evidently much higher speed with which the primaries were being moved, together



FLICKER LEAVING NEST-HOLE

with the space shown in the picture between the outermost secondary and innermost primary, suggest the possibility of an independent movement of the distal portion of the wing. A close examination of the negative shows that the outer primaries are spread out fan-like to such an extent as to be in contact only at their bases. Profiting by experience, this bird subsequently left her tree before one could approach near enough to plant a camera.

The following morning was devoted to securing the picture of a Scarlet Tanager, whose home had been discovered by a good type of the all-seeing farmer's boy. Neither conditions of location, site, or light were favorable, and after the camera had been fastened in the apple tree which the birds had selected for a home, it was found necessary to build a blind of bushes beneath a neighboring tree, whence the photographer could not see his subject. From a distance, therefore, with the aid of a glass, Mr. Burroughs kept watch and gave word when the exposure was to be made. The results, with one exception, demonstrated that the photographer's point of view is not always his camera's, only one

of several pictures showing the bird clear of the surrounding leaves. The male proved to be the braver of the two and, to our surprise, visited the nest more frequently than did his mate.

To find a nest is one thing: to find one that can be photographed quite another; so I may only mention the House Wren who lived well within the gable of Mr. Burroughs' study at Riverby, the Wood Thrush composedly incubating in her nest on a high maple branch stretching across the driveway at her landlord's threshold, and the Orchard Orioles, who, with rare discrimination, chose the ball of leaves at the top of a recently transplanted maple sapling.

It should, unfortunately, be added that to photograph a nest is but one step in the process of securing a picture of it. The verdict of the dark-room is not always a favorable one, and there is left only the possibility of a new trial. Of this side of bird photography perhaps the less said the better. It may, however, be set down as a result of a patience-testing experience in securing two exposures on an Indigo Bunting feeding her young that it is never advisable, at least in bird photography, to make more than one exposure on the same plate!



MALE SCARLET TANAGER ABOUT TO FEED YOUNG

A Sudden Friendship

BY ANNIE TRUMBULL SLOSSON

Author of 'Fishin' Jimmy,' etc.

IT was at Ormond, in Florida, on a summerlike day in February. I was at dinner in the early afternoon, when a friend came in and laid something on the table before me. It was something soft and fluffy and blue—a tiny bird, and seemingly a dead one. It had just been picked up from the floor of the piazza under a window, against the glass of which it had evidently flown.

It was a Blue Yellow-backed or Parula Warbler, an exquisite little creature. I had never seen one of this species so near, and wished to examine it closely, so I placed the pitiful little body, with its tiny curled-up claws and half-shut, dull eyes under a glass finger-bowl near me and left it there to await my going to my room. A few minutes later as I took the bird in my hands I thought I felt a faint throb of life. I hastened to my room, but before I reached it the little body was quivering and stirring perceptibly. I sat down by my window, holding the bird, and gently smoothing the soft blue feathers. Very soon the eyes brightened, opened wide, and the little beauty raised itself upon its feet and looked up at me. It did not seem frightened, but thinking it was still dazed and half unconscious and would be alarmed at my presence when fully aroused, I put it quickly and gently down upon the sill of the closed, sunshiny window, and left it. I always begin my friendships with what are called the lower creatures by letting them quite alone. It is not a bad method to use with certain higher beings; but this is irrelevant. It was a very warm, enervating Florida day, and I had been out all the forenoon, so I threw myself down upon the lounge with a book. But, of course, I kept an eye upon my new acquaintance, and the bird kept its eye upon everything. It tapped the window-panes with its bill, surveyed the landscape without, turning its head from side to side, then looked about the room. From the window-sill it hopped to a table near by and began its investigations, examining with apparent curiosity and interest each object, pecking softly at the books and pictures. Then it threw back his head and looked up at the white ceiling. This was so unlike the blue depths overhead in his old life that it seemed to puzzle him. After a long, curious look, he soared towards it, fluttered near it for a few seconds, then flew to a cornice over the door and perched upon it. There he stayed, like the Raven of poetry, "just above my chamber door." For a full half hour he rested there, pluming and preening his feathers, sometimes pecking at or tapping the wall with his bill, often, very often, looking across at me as I lay watching him. By

and by a fly came by and lighted near him. He darted at it, missed it, and returned to his perch. He was hungry, and I am given to hospitality where birds are concerned, so I looked about for proper food. Catching a fly upon the window, I laid it upon the outside of my butterfly net — always near at hand — and held it up by the long handle, very cautiously and slowly, towards the bird. When it was within his reach I waited, silent and breathless. You bird people know the feeling, that suspense, that mingling of hope and fear, when one is trying to win the shy heart of a bird. I need not have been afraid. He was not; a glance at the fly, then one at me, and he reached out his little bill and took the food. I drew a long breath of relief. Then I repeated the process. Again and again I caught a fly and held it up for my little friend. For he was a friend, even then, though I did not know how close a friend until later. At last, as I was standing at my window watching for another morsel for my guest, there was a flutter of wings, a breath of air on my cheek, and the jewel of a bird, a sapphire surely, was on my shoulder. I scarcely breathed or moved. But, again, I need not have feared. Turning his pretty head, he looked at me with his bright, soft eyes, then touched my cheek with his bill.

He was mine; I had won him. Whatever had been his old world, his old friends, he had waked up into a new life, and I was a part of it; the best part of it, I think, for from that minute he was a friend and lover. In all my life I have never had so close a bird friend; he took food from my hands, he nestled against my cheek and sat upon my shoulder. At first I was very cautious, for fear of frightening him, but I soon found there was no danger. So I held him gently in my hand and examined the plumage; the blue feathers with a sort of whitish, misty bloom on them, the yellowish patch on the back almost hidden until I parted the outer feathers to see it, the creamy breast with just the suggestion of a brownish band across it, and the white spots on tail feathers. I am sure few, if any, lovers of birds ever had such opportunity of studying closely the living Parula. I grew bolder as I saw his boldness, and tried little experiments with my new friend. I shook him from my hand, pushed him gently away from me, refused him food or caresses; but he came back to me, pecked my hands and face, pulled at my hair with his beak, crept into my half-shut hand and nestled there. All that soft, warm afternoon we were together and in closest intimacy.

As the sun went down across the Halifax river, but before it had disappeared from sight, the bird was suddenly missing. For some minutes I searched for him in vain. At last I found him. There was a pot of English Ivy on one end of my mantel. On the earth in the flower-pot under the sheltering ivy leaves was a little ball of blue down, — my visitor with his head tucked under his wing, asleep. It was bed-

time and he had retired, going to sleep as peacefully, as trustingly as if in his own nest among the hanging moss. I could not leave him there, for I wanted to open my window before I left the room for the evening, so I made a cosy bed-room of my wicker scrap-basket and placed him in it. As I took him out of bed very gently he made a faint, protesting, drowsy little noise, a chirp or peep; the only sound I ever heard him utter. When I came upstairs two or three hours later, I looked in at my little friend and found him fast asleep. But at dawn he was awake and stirring. I uncovered the basket and he at once sprang toward me, darting upward, lighting upon my clothing and nestling against my neck. He had not forgotten me. But I had forgotten that the window was open. Before I remembered, the bird flew to it, lighted upon the sill and looked out through the open slats of the shutters. The air came softly in, full of the breath of flowers, and birds were singing just outside. Had I lost him? No; he listened, looked, then turned away and flew to my shoulder. He was a very silent lover, but I understood him.

At the breakfast table I talked about my new friend, and, of course, all wished to see him. So I brought him down stairs, and exhibited him in the large front hall. He stood upon my outstretched hand and looked about him, took the flies I offered, pecked at my cheek, my fingers, but took no notice at all of the people who gathered around him. He and I were alone together in this new life, and he was content.

Now came the question as to what I should do with the bird. It was scarcely a question; I knew what I ought to do, what I must do. I could not keep him. We were leaving Ormond next day, and I could not carry this active, restless, insect-eating warbler on my travels, caged and unhappy; but it was a little hard to let him go. I fed him till he would eat no more. I smoothed the blue feathers, looked into the soft, dark eyes and perhaps said a few foolish good-by words he could not understand. Then I took him out into the sunshine, among the trees and flowers and butterflies, and tossed him lightly into the air towards liberty. He fluttered there an instant, then darted towards me and settled upon my shoulder. Again and again this was repeated. He would not leave me. I saw that I must treat him as one sometimes treats a clinging child: I must steal away stealthily so that he would not find me. So I took him away from the house, up the road to a hammock where the trees grew thickly and where there were many birds, and some Parulas like himself. I placed him upon a branch among the leaves, his head turned away from me, then tried to steal quickly away unseen. In an instant he was on my shoulder. Three times I tried this, with the same result. But the fourth time it was successful. As he reached out toward a fly-

ing insect in the air I disappeared behind a clump of trees and, stealing in and out quickly and quietly among the vines and shrubs, eluded him. I am not ashamed to say that my eyes were full of tears as I crept along and there was a homesick lump in my throat. I wonder if he missed me. I wonder if he understood that I had to do it.



IN ARCADIA

Photographed from nature by William Rollins

For Teachers and Students

Birds and Seasons

FOURTH SERIES

JUNE AND JULY BIRD-LIFE NEAR BOSTON

BY RALPH HOFFMANN

EVEN before the May migrants return, the early arrivals and some of the winter residents have chosen nesting-sites in the old apple orchards, and all through May and early June a student of birds is kept busy following up old friends or making new acquaintances. Birds return to their old homes with startling regularity, and yet there is a considerable amount of change from year to year in the avine population of a township. One species has had a successful year, and overflows from an old locality, so that a pair of House Wrens appear where there were none the year before, or some calamity overtakes the Prairie Warblers, and the old corner where the male sang is silent. While many birds are generally distributed, others are very rare, or abundant only in a few peculiar regions. Only in extensive marshes can we expect to find the Rails and the Marsh Wrens; the Purple Martin and the Cliff Swallow are found in one village, but not in the next. We may live near the edge of the breeding range of certain species, and find only a few pair, while to the south or north the bird becomes common. This is the case with the White-eyed and Solitary Vireos.

By the middle of June the young begin to be hatched, and the parents' busiest time begins. In July the young appear in the fields and lanes, and by the end of the month are wandering about with their parents, learning their first lessons in geography. Some morning late in the month the first Solitary Sandpiper, returning from the north, reminds us that each season passes insensibly into the next.

BIRDS THAT BREED IN THE VICINITY OF BOSTON

Pied-billed Grebe,* Black Duck,* Wood Duck,* American Bittern, Least Bittern,* Green Heron, Black-crowned Night Heron, Virginia Rail,* Sora Rail,* Florida Gallinule,* American Woodcock,* Spotted Sandpiper, Bob-white, Ruffed Grouse, Mourning Dove,* Marsh Hawk, Sharp-shinned Hawk,* Cooper's Hawk, Red-tailed Hawk,* Red-shouldered Hawk, American Sparrow Hawk, Long-eared Owl,* Barred Owl,* Screech Owl, Great-horned Owl,* Yellow-billed Cuckoo, Black-billed Cuckoo, Belted Kingfisher, Hairy Woodpecker,* Downy Woodpecker, Flicker, Whippoorwill, Night-

* Rare, or very locally distributed.

hawk, Chimney Swift, Ruby-throated Hummingbird, Kingbird, Crested Flycatcher,* Phœbe, Wood Pewee, Least Flycatcher, Bluejay, Crow, Bobolink, Cowbird, Red-winged Blackbird, Meadowlark, (Orchard Oriole), Baltimore Oriole, Bronzed Grackle, Purple Finch, American Goldfinch, Vesper Sparrow, Savanna Sparrow,* Grasshopper Sparrow,* Henslow's Sparrow,* Sharp-tailed Sparrow,* Chipping Sparrow, Field Sparrow, Song Sparrow, Swamp Sparrow, Towhee, Rose-breasted Grosbeak, Indigo Bird, Scarlet Tanager, Purple Martin,* Cliff Swallow,* Barn Swallow, Tree Swallow, Bank Swallow, Cedarbird, Red-eyed Vireo, Warbling Vireo, Yellow-throated Vireo, [Solitary Vireo], (White-eyed Vireo), Black-and-White Creeper, Golden-winged Warbler, Nashville Warbler, Parula Warbler,* Yellow Warbler, Chestnut-sided Warbler, [Blackburnian Warbler], Black-throated Green Warbler, Pine Warbler, Prairie Warbler, Ovenbird, Maryland Yellow-throat, (Yellow-breasted Chat), [Canadian Warbler], American Redstart, Catbird, Brown Thrasher, House Wren, Short-billed Marsh Wren,* Long-billed Marsh Wren,* White-breasted Nuthatch, Chickadee, Wood Thrush, Wilson's Thrush, [Hermit Thrush], Robin, Bluebird.

* Rare, or very locally distributed.

[] Rare, commoner to the northward.

() Rare, commoner to the southward.

JUNE AND JULY BIRD-LIFE NEAR NEW YORK CITY

BY FRANK M. CHAPMAN

For the students of birds in nature June in this latitude is the most important month of the year. The distractions of the migration no longer prevent us from careful, continuous study of the home life of birds, with its innumerable illustrations of highly developed instincts and interesting evidences of intelligent adaptation to the demands of the hour.

The nesting season may be said to begin with the spring migration itself, when, about March 1, the Great Horned Owl, and, a little later, other birds of prey go to housekeeping; the time of a bird's nesting being more or less closely related to the character of the food of its young. June, however, is the true home month, and either in building, incubating, in feeding or training their young, fully ninety per cent of our breeding birds are then occupied with domestic affairs. An early lesson in forming orderly and regular habits is found in the establishment of roosts, to which the young, with one or both parents, of such early-breeding birds as Grackles and Robins repair each night.

The song season reaches its height late in May before most birds are occupied with care, and inspired males have little to do but give expression to their emotions and eloquently, if unconsciously, voice the joy of the season. It is a merry time, all too quickly ended, as the one-brooded birds soon drop from the choir to begin at once preparations for the first stages of the journey to their winter quarters, Bobolinks, Red-winged Blackbirds, Veeries, and Orchard Orioles and some others being rarely heard after July 15.

By July 1 the tide of the birds' year begins to ebb. Then we look for the returning Tree Swallow, a bird which does not, as a rule, nest

in the immediate vicinity of New York city, but during July and August roosts in great numbers in our Hackensack marshes. Here, in early July, it is joined by the Red-winged Blackbirds, and now the careful observer may find many changes in the character of the bird-life of a district with which he has become familiar in June, as birds no longer confined by the cares of the nesting season, and not as yet impelled to migrate, wander irregularly about the country.

BIRDS OF THE SEASON

For permanent residents see BIRD-LORE, Dec., 1900, p. 184.

Wood Duck,* Green Heron, Black-crowned Night Heron, American Bittern,* Least Bittern,* Clapper Rail, King Rail,* Virginia Rail,* Woodcock, Spotted Sandpiper, Mourning Dove, Osprey, Barn Owl,* Yellow-billed Cuckoo, Black-billed Cuckoo, Belted Kingfisher, Nighthawk, Whip-poor-will, Chimney Swift, Ruby-throated Hummingbird, Kingbird, Crested Flycatcher, Phoebe, Least Flycatcher, Acadian Flycatcher, Traill's Flycatcher,* Wood Pewee, Baltimore Oriole, Orchard Oriole, Red-winged Blackbird, Purple Grackle, Bobolink, Meadowlark, Cowbird, Grasshopper Sparrow, Henslow's Sparrow,* Seaside Sparrow, Sharp-tailed Sparrow, Swamp Sparrow, Field Sparrow, Vesper Sparrow, Chipping Sparrow, Rose-breasted Grosbeak, Towhee, Indigo Bunting, Scarlet Tanager, Barn Swallow, Rough-winged Swallow,* Cliff Swallow,* Bank Swallow, Tree Swallow, Purple Martin,* Red-eyed Vireo, Warbling Vireo, Yellow-throated Vireo, White-eyed Vireo, Black and White Warbler, Blue-winged Warbler, Worm-eating Warbler,* Yellow Warbler, Chestnut-sided Warbler, Prairie Warbler,* Redstart, Hooded Warbler, Ovenbird, Louisiana Water-Thrush, Maryland Yellow-throat, Kentucky Warbler,* Yellow-breasted Chat, Catbird, Brown Thrasher, Short-billed Marsh Wren,* Long-billed Marsh Wren, Veery, Wood Thrush, Robin, Bluebird.

* Rare or local

JUNE AND JULY BIRD-LIFE NEAR PHILADELPHIA

BY WITMER STONE

June and July mark the summer period of rest in bird-life, so far as migration is concerned, but a period of intense activity to the birds themselves. It is then that all species are on their breeding-grounds and consumed with the care of nests and young. Owing to the early nesting of many species, however, we find them scattering over the country or beginning to flock long before others have guided their young from the nest. The Goldfinch, Cedarbird and Dove may be found breeding later than any other species, the last, however, like many other birds, raises more than one brood in a season. Occupied with family cares the birds become less musical and less conspicuous, and these months seem almost commonplace after the excitement and bustle of May, were it not for the interest to be found in watching the nests and studying the development of the young.

About ninety species breed within ten miles of Philadelphia, but half that number is a fair average for one's immediate neighborhood.

With the young on the wing, our songsters grow less and less musical, and by the middle of July most of them are silent, though the Red-eyed Vireo and Indigo-bird may still be heard after the other voices have been hushed.

About July 15 we also begin to recognize visitors from near by that did not breed immediately about us, and our rarer breeders are increasing in number, while a tendency to flock is evident on all sides. This is the beginning of the fall migration, and generally by July 30 we note the first real stranger from the north—the Water-thrush.

In July also we see the molt in progress: the annual shedding of the worn breeding plumage and the substitution of a fuller feathering, which is to serve as a winter wrap. Most young birds, too, have a molt at this time and lose the scant 'juvenal plumage' which covered them when they first launched forth from the nest.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE, December, 1900, p. 183.

Night Heron, Green Heron, Least Bittern, Killdeer, King Rail, Virginia Rail, Spotted Sandpiper, Turkey Vulture, Yellow-billed Cuckoo, Kingfisher, Flicker, Red-headed Woodpecker, Hummingbird, Chimney Swift, Night Hawk, Kingbird, Crested Flycatcher, Pewee, Wood Pewee, Green-crested Flycatcher, Orchard Oriole, Baltimore Oriole, Red-winged Blackbird, Purple Grackle, Cowbird, Indigo-bird, Towhee, Chipping Sparrow, Grasshopper Sparrow, Vesper Sparrow, Scarlet Tanager, Barn Swallow, Rough-winged Swallow, Bank Swallow, Red-eyed Vireo, White-eyed Vireo, Ovenbird, Maryland Yellow-throat, Blue-winged Warbler, Black and White Warbler, Kentucky Warbler, Yellow Warbler, Worm-eating Warbler, Chat, Long-billed Marsh Wren, House Wren, Brown Thrasher, Catbird, Wood Thrush, Robin, Bluebird.

Rare or Local Breeders.—Wood Duck, Field Plover, Osprey,* Black-billed Cuckoo, Whip-poor-will,* Least Flycatcher, Cliff Swallow, Purple Martin,* Yellow-throated Vireo, Warbling Vireo, Prairie Warbler,* Pine Warbler,* Louisiana Water-thrush, Redstart, Rose-breasted Grosbeak.

* Plentiful in southern New Jersey.

JUNE AND JULY BIRD-LIFE NEAR OBERLIN, OHIO

BY LYNDS JONES

During the whole of June there are present only the summer resident species, if we except an occasional stray drake Mallard. The closest scrutiny of June bird-life has failed to bring to light any movement of species either northward or southward, but there may be movement of some individuals of the latest spring arrivals northward in early June, and a slight southward movement among the earlier breeders of the earliest arrivals, late in the month. Thus the Bronzed Grackles and Robins begin to gather in considerable flocks, to form roosts, even late in May. The movement is no doubt rather a preparation for migration than an actual migration. In the list of summer residents I have included eight species which do

not appear in the lists of arrivals in previous numbers, because they are too irregular and too scarce to determine their dates of arrival, even approximately.

July witnesses a good deal more activity of southward movement among the summer resident birds, but a careful search during the whole of the month has failed to bring to light any stragglers from the north. The molting period so drives the birds into seclusion that it is difficult to be sure that the apparent decrease in the numbers of species is really a decrease, or that they are only in hiding. Toward the end of the month most of the birds have wholly deserted their nesting places, and must be looked for in other places where concealment is easy. The larger Hawks have already renewed their fall dress, but the hot weather holds them in retirement. At this time they seem to be less alert than is their habit, for many times I have stolen upon them within almost reaching distance. I have often wondered if the presence of Lake Erie, lying as a barrier to southward migrations as it does to the northward, might not account for the lack of northern breeding Warblers and shore birds in July. Do they prefer to pass around the ends of the lake until the advancing season makes a more direct return necessary?

SPECIES PRESENT DURING JUNE AND JULY

For permanent residents see BIRD-LORE, December, 1900, page 186.

Killdeer, Red-winged Blackbird, Meadowlark, Bronzed Grackle, Robin, Bluebird, Mourning Dove, Belted Kingfisher, Cowbird, Towhee, Migrant Shrike, Great Blue Heron, Phoebe, Vesper Sparrow, Pied-billed Grebe, Chipping Sparrow, Field Sparrow, Bartramian Sandpiper, Spotted Sandpiper, Yellow-bellied Sapsucker, Chimney Swift, Barn Swallow, Purple Martin, Brown Thrasher, Kingbird, Crested Flycatcher, Least Flycatcher, Bobolink, Baltimore Oriole, Grasshopper Sparrow, Cliff Swallow, Bank Swallow, Scarlet Tanager, Red-eyed Vireo, Warbling Vireo, Blue-winged Warbler, Yellow Warbler, Ovenbird, Maryland Yellow-throat, Redstart, House Wren, Catbird, Wood Thrush, Wilson's Thrush, Orchard Oriole, Rose-breasted Grosbeak, Indigo Bunting, Yellow-breasted Chat, Yellow-throated Vireo, Cerulean Warbler, Green-crested Flycatcher, Yellow-billed Cuckoo, Black-billed Cuckoo, Ruby-throated Hummingbird, Wood Pewee, Traill's Flycatcher, Least Bittern, Nighthawk, Whip-poor-will, Lark Sparrow, Dickcissel, Tree Swallow.

JUNE AND JULY BIRD-LIFE AT GLEN ELLYN (NEAR CHICAGO) ILLINOIS

BY BENJAMIN T. GAULT

The final days of May have witnessed the disappearance of the transient migrants, and, though some of our later Warblers, the Connecticut and Black-throated Green, may have extended their visit for a brief spell longer—occasionally well into June—we must regard them at this season strictly as loiterers.

On the whole, it is far safer in concluding that with the departure

of the Black-poll Warbler, and the silencing of his quaint pebble-like clicking notes—one of the very best indicators, by the way—the season of spring migration has happily drawn to a close. So, with the going out of May, the exciting period of the past few weeks has suddenly terminated, and we find ourselves face to face with a new order of things.

With the birds it is the central or focusing point in many of their careers, while to ourselves as students it should bring forth a season of no mean importance.

First, for the opportunity thus given us for determining to a degree of certainty the number and kind of our permanent and summer-resident forms; second, for the very great interest attachable to a more thorough knowledge of their nesting ways.

June, to the majority of our birds, means the great nursery month of the year. A very considerable number of them, it is true, may have anticipated it from one to several weeks' time. Again, there are others that will delay all nest-building operations for several weeks yet to come. In any event, however, the question of food suitable for the needs of their growing young, at the proper season, has much to do in explaining their otherwise eccentric habits, whether they are late or early breeders, as the case may be.

June is also the month when a gradual cessation of the season of song is noticeable. The Bobolinks, Grasshopper and Henslow's Sparrows of our meadows and fields, the Marsh Wrens in the sloughs, or the Red-eyed and Yellow-throated Vireos of the deeper woods, together with the Indigo Buntings in the sproutland clearings, may continue to interest us with their songs, some for a few weeks, others, like the Indigo, the entire summer through; still we, nevertheless, have not failed of detecting a degree of listlessness on the part of others, for example the Robin, Baltimore Oriole, Thrasher and Scarlet Tanager.

An over-taxed parental care may suggest an explanation in the case of some, but for the many a much better solution is offered in the approaching season of molt. As it is, the middle of July finds our mid-summer chorus sadly decimated, both in the number of individual performers, as well as in the quality of songs offered.

So to study, then, our birds to the best advantage we must visit them in their weedy lowland haunts, the hedges and the wet meadows, where many have congregated prior to the formation of their summer roosts.

We are sure to find there the Dickcissel and the Bobolink—old males of the latter in molting parti-colored dress—the Song and the Henslow's Sparrows, and at certain times and places, the Bronze and Red-winged Blackbirds in mixed flocks of old and young. In the lowlands, too, the Black-crowned Night Heron is also much in evidence during wet seasons.

Scarcely has this month commenced to subside before the first indications of the fall migration have set in.

With us the Solitary Sandpiper always takes the lead, followed in turn by other members of the wading family, early though it may seem to be.

BIRDS OF THE SEASON

Summer resident, exclusive of permanent residence, species (for which see BIRD-LORE, Dec., 1900, p. 187) near Glen Ellyn, Illinois, from data collected during the past nine years, earliest dates of arrival being given:

Jan. 21, Cedarbird; Jan. 24, Meadow-lark; Jan. 25, American Robin; Feb. 19, Bluebird and Red-headed Woodpecker; March 3, Killdeer; March 8, Song Sparrow; March 12, Mourning Dove and Red-winged Blackbird; March 17, Bronzed Grackle; March 18, Cowbird; March 20, Flicker; March 21, Phoebe; March 28, Martin; April 1, Kingfisher; April 3, Grass Finch; April 4, Field Sparrow and White-rumped Shrike; April 5, Chipping Sparrow; April 7, Pied-billed Grebe and Chewink; April 8, Black-crowned Night Heron and Savanna Sparrow; April 10, Bartramian Sandpiper; April 12, Marsh Hawk; April 14, Carolina Rail; April 16, Kingbird; April 17, Brown Thrasher and Barn Swallow; April 19, American Bittern, King Rail and Spotted Sandpiper; April 22, Chimney Swift and Blue-gray Gnatcatcher; April 23, Tree Swallow; April 25, Eave Swallow, Green Heron and Virginia Rail; April 26, Baltimore Oriole; April 27, Bobolink and Rose-breasted Grosbeak; April 28, Ovenbird and Orchard Oriole; April 29, Catbird; April 30, Yellow Warbler, Wood Thrush and Scarlet Tanager; May 1, Night Hawk, Ruby-throated Hummingbird, Crested Flycatcher, Warbling Vireo, Indigo Bird, Chestnut-sided and Blue-winged Yellow Warblers; May 2, Yellow-throated Vireo and Maryland Yellow-throat; May 3, Dickcissel, American Redstart and House Wren; May 4, Grasshopper Sparrow; May 5, Red-eyed Vireo; May 6, Acadian and Least Flycatchers; May 7, Black-billed Cuckoo; May 8, Short-billed Marsh Wren and Henslow's Sparrow; May 9, Wood Pewee; May 10, Yellow-breasted Chat; May 11, Cerulean Warbler; May 15, Yellow-billed Cuckoo; May 18, Traill's Flycatcher; June 5, American Woodcock; breeding records for Least Bittern, Long-billed Marsh Wren and Lark Sparrow.

SUMMER BIRDS OF STOCKTON, CALIFORNIA

BY LYMAN BELDING

Water Birds which probably breed within ten miles of Stockton, though extensive reclamation of tule marsh makes their presence uncertain:

Western Grebe, Forster's Tern, American Black Tern, Farallone Cormorant, Mallard, Cinnamon Teal, Gadwell, Wood Duck, Ruddy Duck, Fulvous Tree Duck, White-faced Glossy Ibis, American Bittern, Least Bittern, Great Blue Heron, American Egret, Snowy Heron, Green Heron, Black-crowned Night Heron, Sandhill Crane (rarely), Florida Gallinule, American Coot, Avocet, Black-necked Stilt, Killdeer.

Land birds which breed near Stockton, California:

Valley Partridge, Mourning Dove, Turkey Vulture, White-tailed Kite, Marsh Hawk, Western Red-tailed Hawk, Red-bellied Hawk, Swainson's Hawk, Golden Eagle, American Sparrow Hawk, American Barn Owl, California Screech Owl, Burrowing Owl, Belted Kingfisher, Gairdner's Woodpecker, Nuttall's Woodpecker, Californian Woodpecker, Lewis' Woodpecker, Red-shafted Flicker, Black-chinned Hummingbird, Anna's Hummingbird, Arkansas Kingbird, Ash-throated Flycatcher, Black Phoebe

Western Wood Pewee, Western Flycatcher, Little Flycatcher, Mexican Horned Lark, Yellow-billed Magpie, California Jay, American Crow, Yellow-headed Blackbird, Bicolored Blackbird, Tricolored Blackbird, Western Meadowlark, Bullock's Oriole, Brewer's Blackbird, House Finch, American Goldfinch, Arkansas Goldfinch, Western Lark Sparrow, Western Chipping Sparrow, Herman's Song Sparrow, English Sparrow, Spurred Towhee, Californian Towhee, Black-headed Grosbeak, Western Blue Grosbeak, Lazuli Bunting, Western Martin, Cliff Swallow, Barn Swallow, Tree Swallow, Phainopepla, California Shrike, Warbling Vireo, Hutton's Vireo, Least Vire, Yellow Warbler, Western Yellow-throat, Long-tailed Chat, Californian Thrasher, Vigor's Wren, Parkman's Wren, Tule Wren, Slender-billed Nuthatch, Plain Titmouse, Pallid Wren-tit, Californian Bush-tit, Western Gnatcatcher, Russet-backed Thrush, Western Bluebird.

SUGGESTIONS FOR THE SEASON'S STUDY

[We learn with much pleasure that Dr. W. L. Ralph, who succeeded Major Bendire as Honorary Curator of the Section of Birds' Eggs in the National Museum, has undertaken the continuation of Major Bendire's great work, entitled the "Life Histories of North American Birds." Dr. Ralph has therefore issued a list of questions concerning the nesting habits of birds, and as the subject is directly in line with BIRD-LORE'S "Birds and Season" articles we give the list in full below.]

QUESTIONS RELATING TO BIRDS' AND BIRDS EGGS

(1) The average number of eggs in a set or clutch? (2) The largest number of eggs in one nest? (3) The earliest date of nesting? (4) The latest date of nesting? (5) Whether this species has one or more broods in a season? (6) The favorite site of nest when on the ground? (7) The location of nest when found in a tree or bush? (8) The kind of a tree or shrub for which this species has a preference? (9) The height of the nest above the ground? (10) The period of incubation, if known? (11) Any unusual nesting sites which have come under your observation? (12) The various call notes and songs, so far as you are able to describe them? (13) The kinds of localities most frequented by this species during the breeding season? (14) Whether or not this species is a constant resident? (15) The dates of arrival and departure, if migratory? (16) Whether this species is as abundant now as formerly? (17) The principal causes of increase or decrease in abundance? (18) Any change in its habits which you may have noted? (19) Whether the nest is built by the male, the female, or both? (20) Whether the process of incubation is performed by the male, the female, or both? (21) Whether the young are cared for by the male, the female, or both? (22) Composition of nest? (23) Remarks on the general habits of this species (especially during the breeding season), its food, care of young, etc.

SUGGESTIONS FOR THE SEASON'S READING

Thoreau: 'Summer.' Burroughs: 'In the Hemlocks' and 'Birds' Nests' in 'Wake Robin'; 'Birds'-Nesting' in 'Locusts and Wild Honey'; The Tragedies of the Nests' in 'Signs and Seasons'; 'Birds' Eggs'; 'Bird Courtship' in 'Riverby.' Torrey: 'Confessions of a Bird-Nest Hunter' in 'A Rambler's Lease'; and 'June in Franconia' in 'The Foot-path Way.' Flagg: 'June' and 'July,' in 'A Year with the Birds.' Miller: 'In Nesting Time,' 'Little Brothers of the Air,' 'A Bird-Lover in the West,' 'Upon the Tree-Tops.' Merriam: 'My Summer in a Mormon Village,' 'A-Birding on a Bronco.' Keeler: 'Summer Birds of the Redwoods' and 'In Nesting-Time' in 'Bird-Notes Afield.' Crockett: 'June' and 'July' in 'A Yearbook of Kentucky Woods and Fields.'



What Bird is This?

Field Description.—Length, 5.00 in. Upper parts olive-green, streaked with black, rump brighter; crown blackish, ear-coverts chestnut; a large white patch on the wing coverts; under parts yellow, streaked with black; outer tail feathers with white patches.

NOTE.—Each number of BIRD-LORE will contain a photograph, from specimens in the American Museum of Natural History, of some widely-distributed, but, in the eastern United States, at least, little-known bird, the name of which will be withheld until the succeeding number of the magazine, it being believed that this method of arousing the student's curiosity will result in impressing the bird's characters on his mind far more strongly than if its name were given with its picture.

The species figured in April is the American Pipit or Titlark.

A June Bird Census

During June birds are more sedentary than in any other month. Domestic cares then prevent them from leaving the vicinity of their nests, and one may find the same individuals day after day. June, therefore, is the best season in which to make a census of the bird population of a given area, and we would suggest to those of BIRD-LORE'S readers who are so fortunate as to be afield in June, that much time could be profitably employed in ascertaining the numbers of birds living within certain limits in their neighborhood. Select an area about half a mile square containing, if possible, ground sufficiently varied in character to fairly represent the locality, and then explore it thoroughly, making a list of the species and numbers of individuals seen. The ground should be gone over many times until the observer is assured that practically every bird living in it has been tabulated. The lists of birds secured should be arranged after the classification of the American Ornithologists' Union, and BIRD-LORE will be glad to give space to those which seem worthy of publication.

For Young Observers

Song of the Whippoorwill

BY GARRETT NEWKIRK

" I am a bird misunderstood,
So-called the Whippoorwill;
One always trying to be good,
With reputation ill.

" For people say that when I speak
I am to William bad;
That every night I only seek
To punish that poor lad.

" Now I love William just the same
As I do John or Jim;
And never think of laying blame
Or wishing harm to him.

" And when you hear my plaintive call
While hours are growing late;
I'm thinking not of him at all
But crying to my mate:

" When darkness comes upon the sky,
I take my searching flight,
For moths and beetles as they fly,
Above the earth at night.

' Fear no ill,
Keep you still,
Come I will.'

" Then while at intervals I rest
Upon a rock or rail;
To comfort her I think it best
My loving wife to hail:

' Fear no ill,
Keep you still,
Come I will.' "

Notes from Field and Study

Two Young Hummingbirds

On May 25, 1900, I found a Hummingbird's nest in a small beech, on a branch about ten feet from the ground, and with the aid of a step-ladder was able to keep watch of the incubation of the eggs and growth of the young birds.

The nest was just finished, for the first egg appeared the next day, and by the 28th both eggs were there. Two weeks from the day it was laid—on June 9th—the first egg hatched and the other egg the day after. The little things bore slight resemblance to most young birds, for as they lay flat on the bottom of the nest, with necks outstretched, they were a little less than an inch in length, dark slate-color, with a little yellowish fuzz on the bodies, exceedingly thin necks, three-cornered heads and short yellow bills. The eyes were closed.

Two days later the fuzz had grown so that the bodies were nearly hidden by it, though the heads were still bare, and the bills were almost twice their original length. On June 18, when the first-hatched bird was nine days old, I noted the following: "The young Hummingbirds nearly fill the nest. They are much browner than at first, and the fuzz does not seem to have grown much, if any. They have, however, quantities of tiny pin-feathers like needle-points, on the heads as well as the bodies, and the bills are nearly a third of an inch in length. The eyes are still closed." Four days later both had their eyes open and a few of the pin-feathers were breaking.

Until nearly ready to fly the growth was so rapid—especially of the bills—that the difference was easily noticeable from day to day, while two days made a decided change. And before they were many days old the younger of the pair caught up in size so that the difference between them, at first so pronounced, was entirely lost.

For several days before leaving the nest the birds were well feathered and well grown, showing the head and white throat over one edge of the nest and the white-cornered tail at the other, but up to the last day the bills looked to me not quite full length. They flew the first day of July, having been twenty-one and twenty-two days in the nest.

A week or two later began a great deal of chipping and love-making in the vicinity of the old nest, and July 21 I found a second nest, no doubt built by the same pair, in another beech almost touching the first tree, but in too inaccessible a position for close observation.

At no time did I see the male near either nest.

In this neighborhood Hummingbirds seem to build almost always in beeches, for of nine other nests found not far from these two, seven were in beech, the others in oak and sweet gum.—ISABELLA McC. LEMMON, *Englewood, N. J.*

My Robin Neighbors

There are two large maple trees in front of my home, both within ten feet of the windows of my room. One morning in April, 1900, two robins attracted my attention by flying about one of the trees. They kept flying from branch to branch, and it was evident that they were looking for a place to build a nest. Finally they decided to build their nest between two branches on a level with my window.

They immediately began bringing dry grass and pieces of straw, but the third or fourth time that the male came with his bill full of straw he met with an accident. The place between the branches was very narrow and, as he was flying in, he hit against one of them and rumbled both his feathers and his temper. This evidently made him dissatisfied with the place and they both flew away.

The next morning, much to my delight, they both reappeared in the other tree, and in a few minutes decided on a place which was much better than their first choice. Soon they were bringing grass and straw, as before, and by night had the foundation of the nest completed.

A little girl, who lives in the next house, furnished the birds with nesting material by cutting white twine in short pieces, and the male Robin took it almost as soon as she threw it on the ground. There was a quantity of twine and he evidently thought it a prize as he hurried back and forth and took it all.

Soon there was a lively discussion between the pair, which ended in a real fight, and then the male Robin took his departure.

I cannot understand bird-talk, but it seemed to me that the female Robin did not like the looks of that white twine, for it made the nest very conspicuous, and being placed in bunches, with the ends hanging, gave the nest a ragged appearance.

The female Robin continued the work alone, pulling out some of the twine and covering some of it up. It was very interesting to watch her as she worked. She always worked from the inside, placing her straw or grass where she wanted it, and then pressing against it with her breast to press it into shape.

The birds began building the nest on the 19th of April, and the female completed it on the 27th. On the 29th the third and last egg was laid.

After this the female never left the nest except to make a quick trip to a neighboring field for food. On rainy days she had no food, and would sit there all day with her wings spread out over the nest in such a way that no water touched it.

On the tenth day after the eggs were laid the male Robin appeared. He lighted on a branch close to the nest and as soon as the female saw him she ruffled up her feathers and flew away. He went to the edge of the nest, looked in and then flew away, and the female returned.

On the next day, the 10th of May, two

Robins were hatched, and on the day following the third one appeared. They began their clamor for food almost immediately.

When the young were two days old the male came with some worms in his mouth. He didn't appear at all good natured and fairly pushed the female, who had ruffled up her feathers, out of the nest. His manner seemed to say, "I suppose that these are my children, and that I have got to feed them." He kept coming with worms, and after a few days the female would stand on the edge of the nest when she saw him coming, take some of the worms from him, when they fed the little ones together.

Early one morning I was awakened by a great outcry from the birds. I rushed to the window and there was a neighbor's cat within a few inches of the nest. I succeeded in frightening the cat away, and although I made quite a commotion, the birds acted as if they knew it was being done by a friend to help them. That morning the boy who owned the cat got a wide piece of tin large enough to go around the tree and we tacked it on, so the birds had no more trouble with cats in that way. But in a day or two one of the little ones fell from the nest and the same cat caught and ate him.

When the young Robins were nearly large enough to fly their mother left them one day to hunt for worms, but she never came back again, as a cat caught her. On the 26th of May, when they were sixteen days old, the little Robins left their nest for the first time. They hopped out on a branch by the side of the nest, and, after looking about for awhile, flew across the street into another tree and then on to the ground.

Every one in the neighborhood had been very much interested in the birds, and word immediately went around that the young birds had left the nest and cats must be kept shut in. In a day or two they were taking care of themselves like old birds.—ANNA A. JORDAN, *Bethel, Maine.*

Swallow's Nest on Board Boat

While at Lake George, New York, in the summer of 1900, a curiously placed nest was brought to my notice. I had often heard of birds building in strange places about buildings; but I had never heard of them nesting on a steamer that traversed daily so large a body of water as Lake George. Upon inquiring, I found out that, since the *Horicon* had been in commission that season, large numbers of Swallows had been seen hovering about the boat, especially toward evening after her arrival at Caldwell. A few days afterward some boys, while in bathing off the railroad wharf, discovered a nest beneath one of the guard-rails of the *Horicon*. Upon examination, they found it to be made of mud and to contain three young birds, which had recently broken from their shells. Every day, for some time, on the arrival of the boat at her pier, the old birds were seen bringing food to their young, which continued their trips of eighty miles daily, until they were able to fly.

Captain Harris, of the *Horicon*, informed me that this nesting on board his boat was not an unusual nor new occurrence. He said that usually every year, before the boat was in use, great numbers of Swallows gathered on and about his steamer, and that he had known, previously, of other nests similarly placed. I was unable to gather a full description of the birds, but was told that they were the kind so commonly seen about farm buildings. It may be supposed, although it was not authoritatively stated, that the parent birds must have followed the steamer throughout the day. When sitting, one bird of course had to be upon the nest, and at the same time the other, without doubt, followed the boat. After hatching the youngsters had to be fed at short intervals through the day, thus proving that the old birds, with their brood, completed a course of eighty miles daily, either upon the wing or nest.—BURTON N. GATES, *Worcester, Mass.*

[Should any of our readers learn of the return of these birds, we trust they will report to us.]

The Barred Owl in Bronx Park

For nearly two years there has lived in the Hemlock Grove a Barred Owl, or rather a pair of them, and though neither of them were often seen, yet at morning and early evening their weird hoots were familiar and delightful to us all. Early in February, an old dead hemlock was cut down, and the Owl's nest was discovered to be in it, much to our regret, for it might have been spared. During the next snow-storm an Owl was reported to have been seen perching low down in an old tree, and after the next storm it was found on the ground too feeble to fly. It was brought into the museum, and found to be very thin and sick, for while trying to feed it with finely chopped raw meat, it was discovered that it had two large ulcers in its throat, which prevented its swallowing, and that it was slowly starving to death. It died after ineffectual attempts at curing it by swabbing its throat with kerosene, and it seems likely that it had caught "*the roup*" from some chicken, stolen from our neighbors' poultry yards. The symptoms were pronounced to be the same, extreme lassitude and indifference, sitting with its head down, running at the mouth, an inability to swallow. Its mate has been seen since near the place where their nest used to be.—ELIZABETH G. BRITTON, *New York Botanical Garden, Bronx Park.*

On the seventh of December, at the home of Mrs. Edward Robins in Philadelphia, the Spencer L. Baird Ornithological Club was organized, its object being the study and advancement of ornithology.

The following officers were elected: President, Miss E. W. Fisher; Secretary and Treasurer, Miss M. P. Nicholson. Regular meetings of the club are held twice a month from November to April, consisting of a business and a scientific session, each member being responsible for two papers annually.

During the winter the club has had the pleasure of listening to addresses from Dr. Charles C. Abbott and Mr. Witmer Stone, and hopes to hear papers in the future from other prominent ornithologists.—MARY PARKER NICHOLSON, *Secretary.*

Book News and Reviews

THE WOODPECKERS. By FANNIE HARDY ECKSTORM. Boston and New York. Houghton, Mifflin & Co. 16mo, 131 pages; 5 full-page colored plates by LOUIS AGASSIZ FUERTES; 21 text cuts by J. L. RIDGWAY.

Selecting a group of widely-distributed and easily-identified birds, Mrs. Eckstorm has treated certain of its members, not from the conventional or biographical point of view, but as living object lessons in a study of the relation between structure and habit. There are chapters on courtship, the care of the young, "acquired habits," and a key to the Woodpeckers of North America, but the book deals primarily with the forms and uses of the bill, tongue, feet, and tail. The facts presented bespeak the author's familiarity with her subjects, both in the field and in the study, and she discusses their significance with unusual ingenuity, logic, and facility of expression. The book, therefore, possesses a far greater value than its title would lead us to expect. It forms not only a contribution to our knowledge of Woodpeckers, but is an admirable exposition of methods of observation and presentation in philosophic ornithology, and as such it should be in the hands of every thinking student.—F. M. C.

BIRD DAY AND HOW TO PREPARE FOR IT. By CHARLES A. BABCOCK, A.M., LL.B., Superintendent of Schools, Oil City, Pa. Silver, Burdett & Co. Boston and Chicago. 16mo, 95 pages, 16 illustrations. Price 50 cents.

As the originator of so successful an idea as Bird Day has been proven to be, the author of this book should command an attentive audience. After giving a "History of the Movement for 'Bird Day,'" he writes at length of the value of birds and of their wanton destruction, these chapters being, in effect, reasons for the study of birds. Methods of study are then considered, and are followed by programs for "Bird Day," references to poems on birds, "Objects and Results of Bird Day," and

notes on sixteen representative birds, with cuts from the Biological Survey publications.

Professor Babcock writes from an unusually extended experience; his suggestions have all stood the test of repeated trial, and no one interested in the spread of bird study in the schools can afford to lose the benefit of his advice.—F. M. C.

BIRD PORTRAITS. By ERNEST SETON-THOMPSON. With descriptive text by RALPH HOFFMANN. Boston. Ginn & Co. 1901. 4to, 20 full-page halftones, 40 pages text.

Eight of these "portraits" originally appeared in Stickney & Hoffmann's 'Bird World,' and the remaining twelve illustrated Mr. Torrey's text in the 'Youth's Companion' for 1900. They are well worthy, however, of republication in their present form, either because of their larger size, more careful printing, or the better quality of the paper here employed.

Seton-Thompson's distinguishing characteristic as a bird artist is a sympathy with his subject, and his representation of it, therefore, is not a mere chart of form and feathers, but a subtly expressed rendering of the bird's own personality, which makes his pictures glow with the true sentiment of bird-life.

Mr. Hoffmann's text adequately, and, it is needless to say, accurately, sets forth the principal features in the biographies of the species treated.—F. M. C.

The Ornithological Magazines

THE AUK.—The Auk for April contains several readable articles, among them, "Nesting Habits of Leontes Sparrow," by P. B. Peabody; "Cerulean Warbler * * * in Maryland," by F. C. Kirkwood; "A Visit to Audubon's Birthplace," by O. Widmann, and "Birds of Prey as Ocean Waifs," by H. W. Henshaw. Mr. Kirkwood's effort to portray the Cerulean Warbler's song is novel, but as his diacritical

marks are not explained, they are somewhat unintelligible. After all, birds' songs are seldom a success when reduced to printer's ink.

Much space is given to technical articles, one on "The Pterylosis of Podargus, with Notes on the Pterylography of the Caprimulgi," deserving particular mention. Descriptions of new subspecies take up a number of pages, especially the republication of those scattered in other journals, and here brought together with critical notes by Dr. J. A. Allen. It is to be hoped some forms will not survive the tribunal of the A. O. U. committee, for just now we seem to be approaching a point where, having exhausted the possibilities of series of specimens from adjacent farms, we shall soon be driven to recognize north light and south light races, according to the rooms in which they are studied. This is no fling at careful work, but describing is a line of least resistance and attracts many who see differences so minute that they cannot be intelligibly expressed by words.

Mr. R. H. Howe, Jr.'s, "A Study of the Genus *Macrorhamphus*," furnishes a refreshing exception to the multiplication of races that regularly follows examinations of large series. With 250 specimens he evolves no new race, instead reducing the two species to one with *scelopaceus*, a subspecies of *griseus*. There is room for a great deal more of this synthetical work, although it is not so much fun as "splitting."
—JONATHAN DWIGHT, JR., M. D.

THE CONDOR, March-April, 1901.—The first of a series of articles on Mexican birds, by E. H. Skinner, is devoted to an account of Giraud's Flycatcher, based on observations made near Tapachula, Chiapas, in extreme southern Mexico. A somewhat similar article by R. D. Lusk describes the habits of the Buff-breasted Flycatcher in Arizona. Both are welcome contributions to the scanty literature of these comparatively little known Flycatchers. Chamberlin's notes on the nests of the Western Gnatcatcher and Williams' 'Trait of the Western Robin' (in drooping the wings while feeding) suggest interesting

lines of work for careful field observers. Of somewhat more local interest, but none the less valuable, are two faunal papers, one on 'Rare and Unusual Occurrences at Stockton, Calif.,' by W. B. Sampson, the other a list of birds of the Pima Reservation, Arizona, by G. F. Breninger.

Two notes on nomenclature are important to students of western birds. Richmond shows that the generic name of the Condor, *Pseudogryphus*, must give way to the shorter but scarcely more euphonious name, *Gymnogyps*, so that the California Condor will hereafter be known as *Gymnogyps californianus*. McGregor calls attention to an earlier name for the western Blackheaded Grosbeak, described in the November number of the 'Condor'—another instance of careless work on the part of an author who was more anxious to name a new subspecies than to study its history.

Under the head of communications Os-good presents arguments in favor of recognizing closely related forms by name, and McGregor calls attention to the desirability of dropping the possessive form of bird names and of securing greater uniformity in the common names in the A. O. U. Check-List.

The Cooper Club's interest in bird protection is shown by a list of thirty names on the Protection Committee for 1901—a larger committee than that appointed by the A. O. U. Fifteen members belong to the Northern Division and fifteen to the Southern Division, representing in all fourteen counties, or one-fourth of all those in the state. There is ample work for such a committee to do along educational lines, since the bill which the club supported so energetically and which passed both branches of the Legislature failed to receive the Governor's approval. Bird protection in California needs more general support, so that there may be no question as to the enactment of a comprehensive measure in 1903.—T. S. P.

BOOKS RECEIVED.— Other publications received for review will be noticed in BIRD-LORE for August.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

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

It is often remarked, with equal truth and triteness, that laws are not self-acting; and, in many instances, the same statement might be applied to the makers of laws. Thus, the average legislator has little or no interest in securing the passage of laws designed to protect non-game birds. He is, however, as a rule, not opposed to such legislation, and when its desirability has been made known to him the facts in the case are so clear, the arguments so unanswerable, that he rarely fails to give a bird-protective measure his support—be it said to his credit.

The difficulty has been in bringing the matter to his attention in such a manner that he cannot but realize its importance. Circular letters and other forms of indirect appeal are not sufficient, but the experience of Mr. Dutcher and Dr. Palmer during the past winter proves conclusively that if the bird-protectionist properly pleads his cause before the legislative game committee he will win the day.

So these gentlemen, representing the American Ornithologists' Union and the Biological Survey of the U. S. Department of Agriculture, have journeyed from Maine to Florida to urge upon the legislators of various states the necessity of giving to their

birds adequate legal protection. In some instances they found a sympathetic sentiment already established by local Audubon or Ornithological Societies, in others, their almost unaided efforts secured the reconsideration of a bill which had previously been rejected; and it speaks volumes for their energy, skill, and tact when we say that wherever they have gone good laws have been secured. In Florida, however, the legislature is still in session, but with every prospect of passing the law introduced and personally advocated by these tireless workers for the cause of bird protection.

In Maine, New Hampshire, New Jersey, Delaware, District of Columbia, and Wyoming (where we are glad to hear an Audubon Society has just been formed) good laws have been passed; and there is every reason to hope that Connecticut and Florida will be added to the list. California loses its place on this honor roll solely through the surprising act of its governor, who vetoed a bill which had passed both branches of the legislature.

Now let us make the legal protection, which has so happily been secured, actual protection by subscribing liberally to the Thayer fund. Mr. Dutcher's success with the small sum at his disposal last year tells in the most satisfactory manner possible how much may be accomplished at a comparatively low cost. The new laws which have been secured now greatly widen the field which may be profitably covered, and it is greatly to be hoped that funds may be at once forthcoming to hire wardens wherever they can be employed to advantage.

Already twenty-five wardens have been employed, but the number should be largely increased if bird-lovers would send their contributions to William Dutcher, 525 Manhattan Avenue, New York city.

THE publication of reports of Audubon Societies has necessarily been postponed to give space to Mr. Van Name's important paper on practical bird protection. Every one living in the country can do something in the direction outlined by Mr. Van Name, even if his efforts be confined to his own garden.

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 (President of the Audubon Society of the State of Connecticut), Fairfield, Conn., to whom all communications relating to the work of the Audubon and other Bird Protective Societies should be addressed. Reports, etc., designed for this department should be sent at least one month prior to the date of publication.

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Song Bird Reservations

When the progress of civilization, via the demands of an agricultural and manufacturing people, encroached upon and finally overran the hunting grounds of the North American Indian, tracts of land were reserved for him where he might live partly by his own industry and partly by bestowed rations, this method being only successful in a degree, owing to the uneconomic nature of the individual so aided.

Now that the same civilization is reducing the woodlands and wild tracts that for ages have been the birds' hunting grounds, should not they too be provided with suitable reservations, where the food natural to such places shall be sufficiently supplemented and the supply placed beyond the vicissitudes of weather, etc.? For, unlike the roving Indian, the bird is as great an encourager of the agriculture that often de-

prives it of its time-honored haunts, as the farmer who sows the seed.

Everything that is said in the following paper regarding the practicability of combining farms in great preserves for game birds can be even more easily accomplished for Song Bird Reservations, it being generally conceded that the day has passed when it is enough to satisfy the demands for bird protection by simply ceasing to kill.

Not only may owners of large estates arrange suitable winter shelter for resident birds and establish feeding places where daily rations are distributed, but small land owners may pledge themselves, combine, and by systematic arrangement convert whole squares in suburban towns into these reservations, appointing one member of the union as "food agent" for a specified time, so that there may be no forgetting, for that "every one's business is nobody's business"

is especially visible in the care and feeding of animals.

It seems to me that this idea opens vast possibilities, and I beg every one who is now reveling with a grateful heart in the bird music of June, to aid in establishing a Song Bird Reservation this summer, be it of one acre or of one thousand.

M. O. W.

A Connecticut Game Preserve

For a number of years past there has been maintained in the town of Hampton, in Windham county, Connecticut, a game preserve, which has features of unusual interest, not only for sportsmen but for all concerned in bird protection.

Obviously, a preserve which is to be a useful agent in the work of game protection, and is intended to make up in some degree for the shortcomings of the game laws, must be based upon less selfish motives than the sportsman's preserve of the ordinary kind. It must provide a refuge and suitable breeding ground for the birds, and not simply protect them from one man in order that another may kill them.

Such preserves are more often advocated on paper than tried in reality, for they are generally supposed to involve such large outlay for land and maintenance and to offer so little benefit in return, that they are held to be far beyond all possibility of attainment.

The preserve which is here described is of interest, as it shows how far wrong this assumption is, and how an almost ideal game preserve, on a considerable scale, was established through the efforts of one man, Mr. E. Knight Sperry, of New Haven, with so little difficulty and with an outlay so insignificant that there is the best of hope that it can and will be initiated elsewhere; and with a degree of success that was far in advance of the most sanguine of those who watched the experiment.

This preserve comprises between one and two square miles of farm and woodland, and includes a small stream. The ownership of this property is distributed among seven or eight people, who have granted Mr. Sperry the right to preserve the game on their farms,

on condition that he would not shoot there himself, and would bear the expense of posting the land with the necessary signs forbidding hunting, and would stock the grounds with birds. The land-owners, on their part, agreed to do no shooting on their lands and to allow no others to shoot there. As they live on the farms they are able to enforce this prohibition without much difficulty, and the expense of watching the preserve is thus practically nothing.

The chief item of expense was to procure and post the signs forbidding hunting. These were stenciled upon boards one foot square. About sixty signs were put up. The cost of these is not recorded.

Though there are a considerable number of Partridges on the preserve, the principal game birds are Quail. Each year about two dozen of these birds, costing seven or eight dollars for the lot, have been liberated on the grounds. The birds have been obtained from one of the northwestern states, as southern birds do not endure the climate well and either migrate or die off during the winter.

In order to be a success, a game preserve must, first of all, provide food for the birds, or they will not be able to remain there. The natural resources of the land are generally sufficient to support the birds during the summer months, but in winter the case is different, and if a large bird population is to be supported with such liberality that they will not be driven to forage elsewhere, some additional food supply must be provided at that season. This has been done by planting each year a couple of small patches of wheat or buckwheat, which is left to go to seed, and as the stalks of the plants project above the snow in winter the birds are able to find the food at all times and are kept in good condition, even in the severest weather.

There have been no other expenses worth mentioning. The total cost has been so small, both for starting and keeping up the work, that the sum necessary could be raised without much difficulty by subscription among the sportsmen of even the smallest towns, if they could be con-

vinced of the advantage of such work. The results which Mr. Sperry has attained are no less interesting than his methods.

It is now about seven years since the plan was put in operation, but only a small part of this period had elapsed before the effects of the experiment began to be apparent. As would be expected, the birds soon became very abundant on the preserve, but it is by the effect on the number of birds in the surrounding country that the practical utility of the work must be judged, as no shooting is allowed on the preserve itself. The best evidence on this point is the opinion of the people living in the vicinity. With them the preserve is decidedly in favor; in no case has any land-owner withdrawn from the agreement, though it is a purely voluntary one, which can be broken off at any time. On the contrary, another person has recently become a party to it, thus increasing the original area. The birds have increased to such an extent that they have spread to the surrounding country, and now furnish good shooting on lands where there were very few birds when the preserve was started, and as a method of stocking a region with game this plan has proved vastly more successful than the usual one of liberating birds on lands where they receive no special food or protection, and are shot as soon as the open season comes, if not before.

It is believed that the preserve has been far more liberally stocked with the western Quail than was necessary, and that even a smaller outlay would have been rewarded with almost as much success. It was, however, Mr. Sperry's purpose to give his plan a thorough trial and to err on the side of liberality rather than in the other direction. It is hoped that the Hampton preserve will not remain the only one of its kind.

Though it is perfectly feasible to carry out such a plan under existing laws, it is evident that a law insuring their greater permanence, by making the agreement of the land-owners more binding when once entered into, and providing special means and penalties to safeguard the game, would encourage and help those who wish to start

similar preserves. A bill of this kind will be presented to the Connecticut Legislature, and as it will apply only to the lands of those who voluntarily enter into the contract, it is difficult to see what arguments can be brought up against its passage.

In conclusion, it may be pointed out that game protection by means of preserves is applicable to birds of many more kinds than is generally supposed. A few preserves comprising some of the marshes or beaches along the coast, or some of the ponds or swamps in inland districts, which would furnish safe resorts and feeding grounds for the various water birds during the migrations, and during the breeding season for such as would remain and breed, would help to preserve birds which the state game laws have never properly cared for, and would induce the birds to visit regions which they have to a great extent deserted on account of the constant persecution they suffer.

One reason for the apathy and indifference with which most people regard the extermination of the birds, is the widespread belief that it is an inevitable result of the progress of civilization. There is no greater fallacy. A few of our birds cannot adapt themselves to life in a thickly settled and cultivated country, but this list is a short one. Most of them, including most of the game birds and water birds, could and would, if they were given a chance, adapt their mode of life to the changed conditions due to man's occupation of the country. They are disappearing through our fault and neglect and for no other reasons.

There are few more promising ways of making amends for our past mistakes than by the establishment of such preserves as the one just described. Often no greater difficulties would be encountered than in the case of the Hampton preserve if someone could be found to take the initiative.

WILLARD G. VAN NAME.

New Haven, Conn.

NOTE.—We are glad to receive the annual reports of the Audubon Societies of Kentucky and Florida, which will appear in the next issue.



IN THE HEART OF A HAWAIIAN FOREST
Photographed by H. W. Henshaw

Bird = Lore

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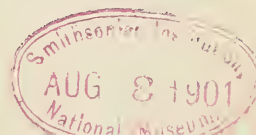
First Impressions of Hawaiian Birds

BY H. W. HENSHAW

THE first experiences of the bird lover in the Island of Hawaii are likely to prove disappointing. The towns are enshrouded in tropical foliage, which offers inviting homes to birds, but the greenery harbors no avian life, save the Mynah and the little Rice Bird, both introduced species. Moreover, the harbors and coast line of Hawaii are, for the most part, almost as barren of native bird-life as the towns. The waters flash in the glorious tropical sunlight; the tidal pools, full of gorgeously colored fish, reflect the tropical vegetation that overhangs them; the sandy and rocky shores stretch invitingly away; everything is present to welcome the birds — they alone are absent.

Yet not quite solitary are the shores of Hawaii. Its rocky islets and coasts have proved a magnet strong enough to draw hither as a permanent resident the Wandering Tattler, the Ulili of the natives, whose running note, as he flits from rock to rock, forms a fitting accompaniment to the murmur of the waves as they break against the rocky barriers. I say a permanent resident, for, although the Ulili is not known to breed on Hawaii, the bird never wholly abandons its shores. The greater number leave, presumably for Alaskan breeding grounds, in April, but many remain the year round. The summer residents are the barren birds and such as are still too immature to breed, or too weak to essay the long ocean flight.

Moreover, if the observer lingers along shore till just before dark, or happens to be abroad at daybreak, he will see large flocks of Turnstones, accompanied by a few Plover, as they wing their way from the uplands, where alone they feed. Here, in pastures or on freshly plowed land, or among the sprouting sugar-cane, the birds find an abundant feast of worms and small insects. By destroying vast numbers of insects they do the planter good service, and in turn are protected by him — for upon



most plantations the Plover, as the two species are indiscriminately called, are wisely protected.

I know of few facts pertaining to birds that are stranger than the yearly migrations of the Plover, the Turnstone and the Tattler to and from these islands. Leaving Hawaii in April by thousands and returning in August and September, in the interim they brave the passage each way of some three thousand miles of ocean, more or less, according to the point of the American continent they steer for. What a wearisome flight across the watery wastes these trips must be! If a storm is encountered thousands must perish, and under any circumstances no doubt many find a watery grave. Wing power has its limits, and many a brave bird heart homeward bound is each year forever stilled in the remorseless waters as strength fails and the never ceasing wing-beats grow fewer and feebler till the end comes.

Why do these birds insist upon such long and dangerous journeys? Their first discovery of Hawaii must have been accidental. A southward migration of Plover and Turnstones was, doubtless, interrupted by a storm. The birds were blown out to sea and, bravely striving against fate, the fortunate survivors discovered Hawaii many centuries before the English navigator was born. But when once the "Paradise of the Pacific" was discovered, why leave it? Why brave the weary and dangerous journey back? The temperature varies but little in Hawaii the year round. The uplands frequented by the birds are cool at all times of the year; apparently, too, they offer as much food in summer as in winter. Perhaps in time the birds will come to realize the advantages of a permanent residence in Hawaii. But first they must overcome that passion—the most powerful that stirs the avian brain—the homing instinct, which impels them to leave Hawaii's hospitable shores for the far away Alaska for no other reason than that they have always done so. In the far north they first saw the light, in the far north they reared last year's brood, and back to the far north they must hark at the cost of no matter what danger and fatigue. Like the Tattler, both the Plover and the Turnstone leave a contingent in Hawaii, which consists, as in the case of the former, of the young and the decrepit.

But three other coast inhabitants remain to be mentioned, for the Bristle-thighed Curlew, or Kiowea, is so rare upon this island that I have never seen one.

In some respects the Noddy Tern, or Noio, is the most notable and interesting of all Hawaii's coast birds, but its distribution is very local. Long sections, in fact, of Hawaii's coast line appear to be without these interesting birds, perhaps because of the absence of proper cliff shelters. Upon the ledges of cliffs and upon the shelves of rocky caves the Noddies doze away their idle hours by day and roost at night. Here upon the

bare rock they lay their eggs, and from their dim recesses the baby Noddy catches its first glimpse of the outer world through the mist of the breakers as they thunder beneath it. The Noio is extremely sociable and is always found in large colonies, which live together in the utmost harmony.

In holes far up the faces of the same cliffs nests the Tropic Bird, the Koae of the natives. Only occasional glimpses of the Koae are caught, as singly or in pairs they wing their way along the cliffs or oceanwise for food. Several pairs of this fine bird have always nested in the cliffs on the west side of Kilauea, and from the Volcano House the birds may often be seen, floating idly in the air or actively chasing each other in play over the pit.

No one unfamiliar with such a solitary coast as Hawaii can realize how greatly the charm of the seaside is enhanced by the presence of birds. It may, at least, be claimed for Hawaii that its desert shores are not the result of man's act. In the way of sea birds Nature has been as prodigal to America as she has been niggardly to Hawaii. But the teeming shores of the mainland have been stripped of Tern and Gull, Pelican and Grebe to satisfy man's greed and woman's caprice. It is to the deep and turbulent waters offshore, to the absence of inshore shoals, and to the general lack of suitable nesting grounds that must be attributed the general absence of waders and sea birds around the island of Hawaii.

But let us leave the coast and its infrequent birds and bend our steps to the forest, where a different experience awaits us.

The Hawaiian forest is a veritable jungle, and to explore its depths one should employ a native who is skilled in the use of the heavy cane-knife, by means of which a passage is cut through the tangle with surprising rapidity. A short time since there was no other way to penetrate the forest, but now it is far easier to follow one of the numerous trails that pass from the infrequent road to the coffee clearings, far within the woods. Many of these have been ferned, that is, have been paved with the trunks of tree ferns halved and laid down for walks, along which the observer may pass swiftly and with noiseless steps. Let us suppose ourselves upon such a trail at an altitude of some two thousand feet. At this height the bulk of the forest proper consists largely of the ohia tree, which attains a height of upward of 100 feet, and supports upon its stalwart trunk and ample branches a whole forest of vines, ferns and berry-bearing shrubs. For so fierce is the struggle for existence in the Hawaiian forest that such plants, and even trees, as are denied a foothold on Mother Earth preëempt a home upon their more fortunate brethren, and thus each tree perforce has to furnish standing room for a whole plant colony.

In some localities at an altitude of about four thousand feet a beautiful acacia, the well-known and highly prized koa of the natives, largely replaces

the ohia, while elsewhere is found a mixture of the two trees, such mixed woods being a favorite resort of Hawaiian birds.

By reason of its great abundance and luxuriant growth, the ieie is the most prominent of the creeping vines, and its existence seems to be indissolubly connected with the ohia, every tree being married to one of the vines, whose loving embrace ceases only with death.

Tree ferns, extreme examples of which attain a height of 40 feet with a girth of 4 feet at the base, are very numerous; thick clumps of bananas grow here and there, and the tangle is still further made up by a great number of small shrubs, tree lobelias and ferns which go to swell the bulk of a semi-tropical forest.

Such a forest, as is here hinted at but not described, clothes the entire windward side of Hawaii save for a belt of sugar-cane fields, some three miles wide, which extends upward from the sea, each year encroaching more and more upon the forests above.

This forest, impenetrably dense, always moist, lighted but dimly and ever silent, is the chosen haunt of Hawaiian birds, and in its depths have been developed those curious forms of avian life unlike any others in the world. Penetrate into the ferns a few steps and then pause a moment. The ohias are in blossom, and from their far-away summits, crowned with clusters of rich crimson blossoms, come the calls and songs of birds. By means of a good glass and with the exercise of much patience most of them may be readily identified. The brilliant crimson plumage of the Iiwi and the dull red of the Akakani, with its white crissum, instantly proclaim the presence of these beautiful species. These birds are the honey-eaters, par excellence, of the Hawaiian woods. Their long curved bills and brush-tipped tongues are preëminently adapted to glean nectar from flowers, and they drink from nature's crimson cups till the liquid nectar fairly runs from their bills.

The tree-tops, in the height of the ohia blossoming, are the scene of one mad revel all day long. At such times both the Iiwi and the Akakani sing almost incessantly, and, as other feathered denizens of the forest join the throng, the scene is one of the most interesting and inspiring possible to be conceived. It can be compared only to our American woods in the height of the spring migration, but in the number of individuals gathered in favored spots and in the united sound of their tumultuous voices it far eclipses our vernal woods. There seems to be a general impression in Hawaii that the Iiwi and the Akakani live almost entirely on honey. This is a mistake. Nectar must contain very little nourishment, for these birds, even when nectar is most abundant, eat great numbers of insects, especially a small green worm that infests the ohia all the year round.

In the deep forests, in tall trees, and in the undergrowth of clear-

ings and along the roads, lives the Amakihi, a small greenish bird which finds its insect food among the foliage. It has a characteristic upward tilt to the tail, somewhat like our Titlark. The Amakihi, too, is fond of nectar by way of dessert, and in many ways it is a very interesting species. I must pass it by with the statement that of all Hawaiian birds the Amakihi, in habits and motions, most nearly resembles our Wood Warblers. Oddly enough, its song is a faint, simple trill, which recalls the song of our Pine Warbler. Go where you will in the Hawaiian woods, if one of these little birds is not visible, one has but to squeak a few times, when a pair appear with answering notes, full of curiosity as to the nature of your business.

The ieie vine has a spike of nutritious seeds, which form the chief food of the Ou, the thick bill of which, developed, no doubt, chiefly for the purpose of extracting these same seeds, together with its yellow head and green plumage, always inspires the stranger with the idea that the bird belongs to the Parrot family. In fact, Latham, its first historian, called it the Parrot-billed Grosbeak! The trim, finch-like shape of the Ou, and its beautiful plumage, are enough to inspire regard in the breast of any bird observer, but the Ou possesses an even stronger claim to affection, for it is the most beautiful songster of the Hawaiian forest. The song is unmistakably fringilline in character, and so much resembles the Canary's, that it is the generally received opinion among the settlers that the forest is full of escaped cage-birds; yet in purity, sweetness and power the song of the Ou far surpasses the Canary's best efforts. Unfortunately the Ou, as a rule, is not very generous with its song, and too often the listener has to be content with snatches of melody in place of the finished performance. Yet I remember on one occasion to have heard more than a dozen males singing in a small patch of woods for at least an hour, and the chorus was worth going far to listen to.

The Ou has a soft, plaintive call, much like a Goldfinch's, which can be imitated so closely as to always elicit a response if an Ou is within hearing. More than once I have called down a passing party from mid-air to a perch in low trees. Often, too, when quietly resting in the forest, I have sent forth the soft call-note of the Ou at a venture, to be instantly answered, and to find myself in the midst of a party of these birds which, unnoticed, had been quietly feeding in the trees overhead. While the fruit of the ieie forms the chief food of the Ou, the bird is fond, also, of several kinds of berries, especially of mamaki berries, of bananas, and even of guavas. Such a varied fare leads to the belief that this beautiful songster might be domesticated in the warmer portions of the United States. It may be doubted, however, if the bird would be welcomed by the fruit-grower, as cherries,

peaches, and other small fruits would almost certainly be eaten by it, and it is a greedy feeder.

Another notable dweller of the Hawaiian woods is the Omao, the only Island representative of the Thrush family. In some districts the Omao is the shyest of all shy recluses, while in others it is quite familiar. I know of no possible explanation of this extraordinary change of disposition. But shy or familiar, it is never chary of its song and often sings the day through. My English friends speak in high terms of the Omao's song, and I regret that I cannot heartily subscribe to their encomiums.

When really bent upon singing, the Omao perches upon the topmost twig of a tall tree, and thence for an hour or more seems to challenge the whole bird world to a musical contest. Its song consists of a series of odd, disconnected syllables, now rapidly uttered, now with widely-spaced measures, but always defying description. In this medley there are occasional melodious fragments which suggest bits of our Brown Thrasher's song, but at best they are the merest suggestion, and the song as a whole is not for a moment to be compared with the poorest effort of our olive-backed fraternity. In general method and effect the Omao's song is not dissimilar to the musical efforts of our Chat (*Icteria*). The Omao, however, has inspired moments, and I have seen a male leave the top of a tall tree and circle about on wing, leaving behind a trail of ecstatic song, the memory of which bids the critic pause.

The ordinary call-note of the Omao is a deep and loud chuck, neither like nor very unlike the notes of the Wood Thrush. Its alarm note, uttered when the bird hears a suspicious noise, is a sort of sworling call that again is a little suggestive of our Catbird's familiar note.

The Omao passes its life in the trees of the deep forest, pretty well up, and I have never seen an individual on the ground. I have searched carefully for the nest of the Omao, for the nest may have something to tell of the bird's not over-clear relationship, but thus far without success.

I must not forget to mention a very curious habit of the Omao. He seems to be afflicted with chronic ague. Standing upright upon a bough in a thrush-like attitude and drooping his wings, he shakes them with a tremulous motion, precisely as young birds do when begging for food from their parents. He is particularly prone to one of these seizures when he sees an intruder, and at first I interpreted the ague to be the result of nervousness or fright. But more than once I have watched the Omao when he was wholly unaware of my presence, and have caught him in the act of having a good shake all by himself. What the performance means, if it means anything, only the Omao knows.

In such a forest as above described, the Oo, prince among Hawaiian birds, used to be common, but alas! the love of feathers is not confined solely to women or to civilization. The old chiefs of Hawaii had to

have emblems of their rank and authority, and the Hawaiian belles of today covet the beautiful yellow feathers of the Oo for leis for the neck. As a consequence, the Mamo is probably entirely extinct, while the Oo still lingers in certain restricted and inaccessible districts.

The Oo is a noble bird, with brilliant black plumage and a far-reaching voice, but with no song as far as I am aware. Its activity as it glides over the branches of the tall ohias, jetting its long tail like a Magpie, is astonishing. At some seasons, at least, it is a most assiduous and persistent insect-hunter, and its loss to Hawaii is to be deplored.

In this brief notice of some of the commoner Hawaiian birds, I have omitted some notable species, such as the orange-colored Akepeleue, smallest of all Hawaiian birds, the green Akialoa, and the yellow-bellied Akipoloau. The latter species, I may briefly remark, has attempted in a way to play the role of Woodpecker, despite the long, thin, curved mandible. The skull is thick and broad at base, and the maxillary and neck muscles are very powerful, so as to confer great driving power upon the short and blunt lower mandible. As a consequence, the bird can hammer off and wrench away small excrescences from the bark and limbs of trees so as to expose the hidden insect burrows. The delicate, curved upper mandible appears to have a double function: first, as a probe to detect the presence of larvæ and beetles in their burrows; second, as a hook to haul them out within reach of the brush-tipped tongue.

In richness of tone and a certain deliberateness of utterance, the song of the Akialoa suggests that of the Yellow-throated Vireo. It is short, but rich and full, and is frequently uttered as the bird flies from tree to tree or climbs about the trunks.

I must not omit all mention of the single Hawk peculiar to the Islands, especially as it is the only bird of prey, except the Short-eared Owl. The latter is so recent a settler from the mainland that it is indistinguishable from mainland specimens. In making the above statement I do not overlook the fact that specimens of the Marsh Harrier have been taken upon the Island of Oahu, where it is probable that the species will in time become established and may spread thence to the other islands. Io, the hawk, is a heavy-winged, sluggish fellow, with much the disposition and many of the habits of the Broad-winged Hawk. He shuns the heavy forest and lives on its skirts and in the clearings. He has a liking for perching upon the branches of isolated trees, where he sits and scans the ground beneath for mice and small rats. Small rodents are his natural food, and so heavy and awkward on the wing is he that only under exceptional circumstances can he catch small birds, to the presence of which, usually, he pays not the slightest attention.

(To be concluded.)

A Nighthawk Incident

BY FRANK M. CHAPMAN

With photographs from nature by the author

A DISCUSSION of the specific distinctness of the Whip-poor-will and Nighthawk, following an address to Connecticut agriculturists, some years ago, led to my receipt, in July, 1900, of an invitation from a gentleman who was present, to come and see a bird, then nesting on his farm, that he believed, combined the characters of both the



NIGHTHAWK AND YOUNG ON ROCK

Whip-poor-will and Nighthawk; in short, was the bird to which both these names applied.

Here was an opportunity to secure a much-desired photograph, and, armed with the needed apparatus, as well as specimens of both the Nighthawk and Whip-poor-will, I boarded an early train for Stevenson, Conn., prepared to gain my point with bird as well as with man.

The latter accepted the specimens as incontrovertible facts and readjusted his views as to the status of the birds they represented, and we may therefore at once turn our attention to the Nighthawk who was waiting so patiently on a bit of granite out in the hay fields. The sun

was setting when we reached the flat rock on which her eggs had been laid and young hatched and where she had last been seen; but a fragment of egg-shell was the only evidence that the bare-looking spot had once been a bird's home. The grass had lately been mowed and there was no immediately surrounding cover in which the bird might have hidden. It is eloquent testimony of the value of her protective coloring, therefore, that we should almost have stepped on the bird, who had moved to a near-by flat rock, as we approached the place in which we had expected to find her.

Far more convincing, however, was her faith in her own invisibility. Even the presence of a dog did not tempt her to flight, and when the



NIGHTHAWK ON FENCE

camera was erected on its tripod within three feet of her body, squatting so closely to its rocky background, her only movement was occasioned by her rapid breathing.

There was other cause, however, beside the belief in her own inconspicuousness to hold her to the rock; one little downy chick nestled at her side and with instinctive obedience was as motionless as its parent.

So they sat while picture after picture was made from various points of view and still no movement, until the parent was lightly touched, when, starting quickly, she spread her long wings and sailed out over the fields. Perhaps she was startled and deserted her young on the impulse of sudden fear. But in a few seconds she recovered herself and, circling, returned and spread herself out on the grass at my feet. Then followed the evolutions common to so many birds but wonderful in all. With

surprising skill in mimicry, the bird fluttered painfully along, ever just beyond my reach until it had led me a hundred feet or more from its young, and then, the feat evidently successful, it sailed away again, to



NIGHTHAWK FEIGNING LAMENESS

perch first on a fence and later on a limb in characteristic, length-wise Nighthawk attitude.

How are we to account for the development in so many birds of what is now a common habit? Ducks, Snipe, Grouse, Doves, some ground-nesting Sparrows and Warblers, and many other species, also feign lameness with

the object of drawing a supposed enemy from the vicinity of their nest or young. Are we to believe that each individual, who in this most reasonable manner opposes strategy to force, does so intelligently? Or are we to believe that the habit has been acquired through the agency of natural selection and is now purely instinctive? Probably neither question can be answered until we know beyond question whether this mimetic or deceptive power is inherited.



NIGHTHAWK ON LIMB

The Birds of a Marsh

BY VERDI BURTCH

SEPARATED from the foot of Keuka Lake, N. Y., by a strip of land about three hundred feet wide, and bordering on its outlet, is a marsh of about fifty acres in area. At some time in the remote past this marsh was a forest, as is attested by the numerous stumps that remain to this day, some of which are upwards of three feet in diameter.

Ten or twelve years ago the water in the marsh was three or four feet deep, but, owing to a period of extended drought, it has been steadily receding into the outlet, carrying with it the soft mud, water-soaked sticks and various sorts of débris. This obstructed navigation to such an extent that the state built a great fence, or breakwater, between the outlet and the marsh, making of the latter a shallow, mud-bottomed pond, the shores covered with cattails, coarse grass and weeds, a patch of alders and willows in one corner, a fringe of trees on one side, and the state fence, beside which are cattails and rank grass, on the outlet side.

As the water recedes, exposing large areas of soft mud, which contains various minute mollusks, worms and the larvæ of insects, the swamp becomes the resort of various species of birds, especially the shore birds. These stop on their way south, bringing with them their families, which were reared in the far north, in some cases way within the arctic circle.

July 28, 1899, at 6.30 P. M., I sat on a stump at the edge of the muddy shore commanding a view of the whole marsh. Four Great Blue Herons were stalking about among the stumps. Leveling my glass at one of them, I saw it move its head slowly forward and downward; then suddenly it shot down into the water and came back with a frog in its bill. With a gulp the frog disappeared, and the Heron resumed his slow walk. The little Green Herons were everywhere, some wading in the shallow water or standing on stumps and others flying about. Belted Kingfishers were perched on the stumps, from which they would fly up and poise in the air with rapidly beating wings, then dart to and into the water, frequently coming out with a small fish, which they would take to a stump to devour. Killdeers were running about all over the muddy shore. Chattering in the cattails were numbers of Red-winged Blackbirds and many Bobolinks, which had changed their bright plumage of spring to a dull buffy olive streaked with black and their song to a single note, *pink*. A few Bronzed Grackles were walking about in the mud. Cedar Waxwings were perched about on the stumps, from which they arose frequently, in true Flycatcher style, to snap up a passing insect. Song Sparrows were running hither and thither among the tufts of grass at the edge of the mud and occasionally mounting a stump to sing a short song.

Now and then a Goldfinch flew by, uttering his merry *per-chic-o-ree* as he flew. A Marsh Sparrow mounted a cattail and sang a low, sweet song. Then a Pectoral Sandpiper, hotly pursued by a Cowbird, alighted near me, where the Cowbird left it to feed in peace. Next a Yellowlegs came flying by. The Pectoral and Yellowlegs are the advance guards of the flocks of shore birds that come here later in the season. A Spotted Sandpiper which has been with us all summer and several Robins now came around me, and numbers of Barn, Cliff and Bank Swallows and Chimney Swifts were flying to and fro over the marsh catching their evening's meal.

August 4, I noted a Solitary and several Least and Semi-palmated Sandpipers. The last two are the smallest of our Sandpipers, and are usually found together, when it is hard to tell them apart. The Semi-palmated is slightly the larger.

August 7, Yellowlegs were common and it was interesting to watch them as they moved about with a jerking motion, saying *cler-clerk*, flying a few feet and alighting gracefully with their long and beautiful wings spread straight up for a second, then carefully closing them to their sides. They were continually on the move and saying *cler* and *cler-clerk*. Several Savannah Sparrows were running about like mice at the edge of the cattails, and a Flicker flew over.

August 13, the Pectorals and Leasts were common and noisy. A Sparrow Hawk was circling around overhead. At 5 P. M. I was sitting on the state fence when three Virginia Rails came stealthily out of the flags, dodging about among the tufts of grass, thrusting their slender bills deep into the soft ground in search of food. They were quite close to me and I noticed that one of them was slightly larger than the others, the plumage of the breast was streaked and the wing coverts were quite rufous. I saw them at this place several times during the following month.

In the early morning of August 15 I was walking on the "fence," when I came to a family of five young Cliff Swallows. They were in a row perched on the rail of the fence overlooking the outlet. I was so close to them that I could see their little eyes glisten as they looked inquiringly at me. King-birds were common, and I heard a Yellow-billed Cuckoo.

August 19, at 5.30 A. M., a Louisiana Water Thrush was running on the mud close to the "fence." A Long-billed Marsh Wren climbed up a cattail to scold me. Heard a Warbling Vireo, Catbird and Baltimore Oriole. A Brown Creeper was creeping zigzag up the trunk of a tree near the marsh.

I did not visit the marsh again until August 29, and noted but one new bird, a Semi-palmated Plover.

My next visit was September 10, and I found the marsh nearly dry and

deserted by the birds, excepting a few Green Herons, a Kingfisher, Pectoral, Semi-palmated Plover and about a dozen Least and Semi-palmated Sandpipers.

September 13. In the bushes were Maryland Yellowthroats, which gave an imitation of their spring song, some immature Blackpoll Warblers, Purple Finches and a pair of Phœbes.

September 19, a pair of Black Ducks flew over, and a pair of Mourning Doves joined the shorebirds, Robins and Cowbirds on the mud.

September 21, saw an Indigo Bunting in a bad state of molt in the cattails. A Cooper's Hawk was soaring about, then alighted on a stump. I was watching it with my glass, when suddenly a mink ran up the stump and grabbed it. The Hawk started to fly and was pulled to the ground, but before I could get to them it broke loose and flew away.

White-throated Sparrows made their appearance in the bushes September 22.

October 9 two lovely Pectorals stood at the edge of a small pool, and in the bushes were Blackpoll (immature) and Myrtle Warblers, White-throated, Song, Swamp and a few White-crowned Sparrows, a Hermit Thrush, Hairy and Downy Woodpeckers, White-breasted Nuthatch, some Chickadees and Rusty Grackles. At dusk flocks of Robins, Cowbirds and Redwings gathered in the alders to roost.

October 22, an American Pipit was feeding near a flock of Pectorals, and I flushed a pair of Wilson's Snipe from the edge of the weeds. Saw a Ruby-crowned Kinglet in the bushes.

October 29, a Long-tailed Duck was swimming in the shallow water, and an Osprey stood on the partly eaten body of a Horned Grebe, where he was bothered by a flock of Crows.

November 12 was a cold, windy day, and I saw only a few Song and Tree Sparrows, a couple of Killdeers and a Pectoral.

During the season I had observed 61 species about this marsh and in the years 1896, '97 and '98, 30 species which were not seen this year making a total of 91 species seen about this marsh.

The 30 species not mentioned before were: Red-shouldered Hawk, Pied-billed Grebe, American Herring Gull, Least and Black Terns, American and Least Bitterns, Coot, Greater Yellowlegs, Red-backed Sandpiper, Marsh Hawk, Bald Eagle, Nighthawk, Tree, Chipping, Vesper and Arcadian Sparrows, Nashville, Yellow, Magnolia and Black and White Warblers, American Golden Eye and Wood Duck, Ruby-throated Humming-bird, Slate-colored Junco, Sora, Wood Pewee, Least Flycatcher, Meadow-lark and Golden-crested Kinglet.



OVENBIRD AT ENTRANCE TO NEST, ABOUT TO FEED YOUNG
Contact print, no enlargement



OVENBIRD AT ENTRANCE TO NEST, ABOUT TO FEED YOUNG
Part of same subject as above, enlarged about $3\frac{1}{2}$ times

An object lesson in enlarging. Two pictures of an Ovenbird, the upper the same size as the negative; the lower enlarged about $3\frac{1}{2}$ times. From nature by Frank M. Chapman, Englewood, N. J., June 8, 1900.

For Teachers and Students

Birds and Seasons

FIFTH SERIES

AUGUST AND SEPTEMBER BIRD-LIFE NEAR BOSTON

BY RALPH HOFFMANN

WHILE there is undoubtedly a steady diminution in our bird-life during August, it is extremely difficult to name the exact date when the bulk of any one species departs. Many birds are molting, and are consequently silent and retiring. The Yellow Warbler, however, sings constantly through July and early August; when, therefore, we cease to hear his song, we assume that he and his tribe have gone. Individual Yellow Warblers may be observed late in September, but these are almost certainly migrants from farther north. In September again little bands of Chimney Swifts may sometimes be observed nearly to the end of the month, but our own birds have probably left us long before. The chief interest in August bird-study lies in studying the plumages of the young birds, and in learning to recognize the adult males in their autumn dress. There is also a certain amount of wandering going on, which may bring to us an early northern migrant before the regular September movement begins. Along the shore there is a regular migration in August, and there Sandpipers, Plover and the various sea birds offer a fascinating but difficult field for study.

September comes after August, somewhat as the spring does after mid-winter. No other month except May offers so great a variety of birds. But the birds sing little, are often much less conspicuously marked, and seem more restless than in spring, so that the study of the autumn migrants keeps one even more alert and watchful than the more stirring mornings of May. Since the very first returning migrant in the fall is not awaited so anxiously as in the spring, I have adopted a different system in recording their arrival. I have given two dates, but the second is the time when the last of the species leaves us for the winter, while the first is the approximate date when the first may be looked for. Where no second date is given, the species remains all winter.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE, Dec., 1900, p. 183.

Departures of Summer Residents in August and September.—August 18, Yellow Warbler, Purple Martin; August 31, Cliff Swallow, Bank Swallow, Red-winged

Blackbird; September 5, Kingbird, Crested Flycatcher, Least Flycatcher, Baltimore Oriole, Barn Swallow, Chimney Swift †; September 10, Bobolink, Whippoorwill, Wilson's Thrush; September 15, Chestnut-sided Warbler, Prairie Warbler, Warbling Vireo, Yellow-throated Vireo, Wood Thrush, Rose-breasted Grosbeak; September 20, Green Heron, Hummingbird, Nighthawk; September 25, Black and White Warbler, Ovenbird, Redstart; September 30, Red-eyed Vireo, Scarlet Tanager, Wood Pewee, Short-billed Marsh Wren, Long-billed Marsh Wren, Nashville Warbler, Black-billed Cuckoo, Yellow-billed Cuckoo, Spotted Sandpiper.

Arrivals and Departures of Migrants in August and September.—August 1–October 1, Solitary Sandpiper, Blue Heron; August 20–October 1, Northern Water Thrush; September 1–October 15, Red-bellied Nuthatch*; September, early, Canada Warbler, Wilson's Blackcap; September 7–October 15, Blackpoll Warbler; September 13–30, Connecticut Warbler; September 15–October 5, Magnolia Warbler, Parula Warbler; September 15–October 10, Lincoln's Finch; September 15–October 1, Western Palm Warbler; September 15–November 20, White-throated Sparrow; September 19, Brown Creeper; September 20–November 10, Myrtle Warbler ‡, Winter Wren; September 20–October 5, Black-throated Blue Warbler; September 20–October 10, Olive-backed Thrush, Gray-cheeked and Bicknell's Thrushes; September 20–October 15, Solitary Vireo; September 22, Golden-crowned Kinglet; September 25–October 10, Yellow-bellied Sapsucker; September 25–November 5, Rusty Grackle, American Pipit; September 28–October 25, Ruby-crowned Kinglet; September 30–October 15, Yellow Palm Warbler.

* Sometimes absent.

† Individuals often much later.

‡ Individuals often much earlier.

AUGUST AND SEPTEMBER BIRD-LIFE NEAR NEW YORK CITY

BY FRANK M. CHAPMAN

The first week in August sees practically the conclusion of the nesting season and of the song period. Goldfinches, Waxwings, and three-brooded Song Sparrows may still be in attendance on their young; Red-eyed Vireos and Wood Pewees will still be in voice, but their conspicuousness at this season marks them as striking exceptions. Birds are now molting and are difficult to find, and until the southward migration becomes pronounced the woods often seem deserted.

Careful, skilled observers will find migrants beginning to arrive from the north as early as August, but it is not until about the 20th that the first real 'wave' appears. Among the interesting migrants to be found, so far as records go, only at this time is the northeastern form of the Loggerhead Shrike, which nests in northern New England.

For bird students near New York city the Hackensack marshes will be found of unusual interest. Each night the Swallows return to roost in them, and, as the wild rice ripens, Soras, Bobolinks and Red-winged Blackbirds become more numerous.

In September migrants from the north grow rapidly more abundant, and the height of the fall migration is reached between the 10th and 20th. About the latter date, the Junco, Brown Creeper, and some other winter visitants may be looked for.

BIRDS OF THE SEASON

For permanent residents see BIRD-LORE Dec., 1900, p. 184.

Migrants Arriving from the North.—*August*: August 1-15, Sora, Yellow-bellied Flycatcher, Golden-winged Warbler, Canadian Warbler, Water Thrush; 15-31, Olive-sided Flycatcher, Tennessee Warbler, Nashville Warbler, Parula Warbler, Cape May Warbler, Black-throated Green Warbler, Black-throated Blue Warbler, Magnolia, Warbler, Blackburnian Warbler, Wilson's Warbler, Red-breasted Nuthatch.

September: September 1-10, Lincoln's Sparrow, Blackpoll Warbler, Connecticut Warbler; 10-20, Blue-headed Vireo, Olive-backed Thrush, Bicknell's Thrush; 20-30, Herring Gull, Junco, White-throated Sparrow, White-crowned Sparrow, Myrtle Warbler, Yellow Palm Warbler, Brown Creeper, Golden-crowned Kinglet, Ruby-crowned Kinglet, Winter Wren, Gray-cheeked Thrush.

Summer Residents Leaving for the South.—*September*: September 1-10, Acadian Flycatcher, Orchard Oriole, Rough-winged Swallow, Worm-eating Warbler, Blue-winged Warbler; 10-20, Baltimore Oriole, Yellow Warbler, Yellow-breasted Chat; 20-30, Green Heron, Hummingbird, Kingbird, Crested Flycatcher, Wood Pewee, Rose-breasted Grosbeak, Yellow-throated Vireo, Warbling Vireo, Hooded Warbler, Louisiana Water Thrush, Wilson's Thrush.

AUGUST AND SEPTEMBER BIRD-LIFE NEAR PHILADELPHIA

By WITMER STONE

August and September are the great months of southward migration, corresponding to April and May of the spring movement. It is true that none of our summer resident species leave us entirely until the first week in September, but migrants are passing during the greater part of both months. The berry-bearing trees and bushes are great rendezvous for birds at this season, and many species can be seen and studied if the observer takes his stand in the vicinity of a group of wild-cherries or clump of pokeberries. The molt of many birds may be noted at this time, and we can easily distinguish the 'fork-tailed' Robins, which are just beginning to lose their feathers, and the 'wedge-tails' in which the new plumage is nearly grown.

Much that goes on during these months is missed by the observer because of the heat and other drawbacks of midsummer, which render field work a serious matter. Then, too, the birds are silent, retiring and listless, in marked contrast to their activity during the spring migration or the first crisp days of October.

By September 1, nearly all birds, old and young, have assumed their winter plumage, and the dull blended colors and lack of many characteristic markings of the nuptial season render identification more difficult.

Our first winter visitants, the White-throated Sparrows, reach us by September 20, and sometimes the Junco is to be seen before October 1.

BIRDS OF THE SEASON

For permanent residents see BIRD-LORE, Dec., 1900, p. 185.

Transients Arriving from North.—August 1-15, Golden-winged Warbler, Chestnut-

sided Warbler, Canadian Warbler, Redstart, Small-billed Water-Thrush; August 15-31, Yellow-bellied Flycatcher, Bobolink, Nashville Warbler, Tennessee Warbler, Parula Warbler, Black-throated Blue Warbler, Back-throated Green Warbler, Magnolia Warbler, Bay-breasted Warbler, Blackburnian Warbler, Wilson's Warbler, Veery; Sept. 1-15, Yellow-bellied Sapsucker, Savanna Sparrow, Blackpoll Warbler, Connecticut Warbler, Pine Warbler, Prairie Warbler, Blue-headed Vireo, Olive-backed Thrush, Red-bellied Nuthatch; Sept. 15-30, Herring Gull, Junco, White-throated Sparrow, Myrtle Warbler, Brown Creeper, Golden-crowned Kinglet, Ruby-crowned Kinglet, Purple Finch, Winter Wren.

Departure of Summer Residents.—Sept. 1-15, Acadian Flycatcher, Orchard Oriole, Baltimore Oriole, Rough-winged Swallow, Cliff Swallow, Barn Swallow, Purple Martin, Worm-eating Warbler, Kentucky Warbler, Blue-winged Warbler; Sept. 15-30, Hummingbird, Whippoorwill, Kingbird, Crested Flycatcher, Wood Pewee, Yellow-throated Vireo, Warbling Vireo, Yellow-breasted Chat, Yellow Warbler.

AUGUST AND SEPTEMBER BIRD-LIFE NEAR OBERLIN, OHIO

BY LYNDS JONES

There is a good deal of movement among the birds during August, yet only two species come down from the north with any regularity, and they late in the month. However, a number of our summer resident species wholly disappear before the month draws to a close. While there are no frosty nights, there is likely to be some chilly weather as early as the middle of the month. There is no lessening of the foliage, except possibly the dying of some of the lower leaves in the thicker woods. The heat, combined with swarming mosquitoes and gnats and the deer flies, makes the life of the ornithologist miserable. The dense foliage renders work with the woods birds extremely difficult, especially so since the birds are inclined to be silent except during the early morning hours. Many of the birds have not fully recovered from the annual molt, and are more than usually retiring on that account.

September brings good cause for thoughts of the sunny south in that forcible suggestion of the coming winter season, frosty meadows and withering vegetation. The month is too likely to contain many days too disagreeable for all but the most ardent devotee of our chosen study. It is not so disappointing as August, for it brings many travelers from the north, and the foliage has thinned with each touch of frost. Not a few of the birds sing again, but the most are silent or only call.

We are accustomed to think of May and June as the months when birds' nests are to be found. In this region many birds are still nesting in July, a few in August, and at least the Goldfinch and Mourning Dove even into September. These and Song Sparrow, Vesper Sparrow and the Cuckoos regularly nest during August. In Iowa I have many times found fresh eggs in the Cuckoos' nests as late as September 6.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE, December, 1900, p. 186.

Arrivals in August.—Olive-backed Thrush, Solitary Sandpiper.

Departures in August.—1-10, Traill's Flycatcher, Orchard Oriole, Blue-winged Warbler, Long-billed Marsh Wren, Wilson's Thrush; 10-20, Rose-breasted Grosbeak, Purple Martin, Rough-winged Swallow, Yellow Warbler, Blue-gray Gnatcatcher; 20-31, Bartramian Sandpiper, Nighthawk, Ruby-throated Hummingbird, Phoebe, Cliff Swallow.

Arrivals in September—1-10, Bonaparte's Gull, Sanderling, Semi-palmated Plover, Greater Yellowlegs, White-crowned Sparrow, White-throated Sparrow, Black and White Warbler, Nashville Warbler, Black-throated Green Warbler, Black-throated Blue Warbler, Magnolia Warbler; 10-20, Blackpoll Warbler, Tennessee Warbler, Blue-headed Vireo, Winter Wren; 20-30, Black Tern, Pintail, Shoveler, Pine Siskin (rare), Myrtle Warbler, Palm Warbler, Ruby-crowned Kinglet, Golden-crowned Kinglet.

Departures in September.—1-10, Kingbird, Crested Flycatcher, Bobolink, Baltimore Oriole, Migrant Shrike, Yellow-breasted Chat, Wood Thrush; 10-20, Great Blue Heron, Sanderling, Green-crested Flycatcher, Wood Pewee, Spotted Sandpiper, Red-headed Woodpecker, Grasshopper Sparrow, Scarlet Tanager, Warbling Vireo, Bank Swallow, Cerulean Warbler, Redstart, Ovenbird, Black-throated Blue Warbler, Brown Thrasher; 20-30, Yellow-billed Cuckoo, Black-billed Cuckoo, Barn Swallow, Maryland Yellowthroat, Indigo Bunting, Red-eyed Vireo, Catbird, House Wren, Nashville Warbler, Magnolia Warbler, Blackpoll Warbler.

BIRDS OF STOCKTON AND VICINITY

By L. BELDING

I wrote the notes in the March-April BIRD-LORE with the purpose of interesting and instructing the school children of Stockton, relying upon my observations of former years for necessary data, knowing, however, that there had recently been a great change in the area under consideration but did not think the change as great as it is. The western half, or thereabout, of this area was until recently tule marsh in which water birds were abundant all of the year, but it has been mostly drained, plowed and quite deserted by the water birds. In extensive explorations through the tule ground in May of this year I did not see a solitary Egret, and other conspicuous species which, like the Egrets, were formerly very common appeared to be entirely absent.

In the city, owing to the superabundance of the English Sparrow, but few native birds breed now. Fortunately, the Western Martin is still very common and some other fine songsters breed sparingly. A few Black-headed Grosbeaks, House Finches and Bullock's Orioles manage to hold the fort against the Sparrows which are rapidly spreading through the surrounding country. Our spring migrants all arrive on or before May 10, and by August 1 the birds, excepting the Mourning Dove and rare individual exceptions, have finished breeding and most species are in flocks. Millions of Blackbirds fly every morning from their roosts in the tule marsh to the grain fields to the eastward, at night returning to their roosts; and this occurs every day of the year when these birds are not breeding.

Many Crows make the same journey by straggling flight over favorite routes from and to their roosts in willows in the tule ground and the Yellow-billed Magpie, now becoming rare, has a similar habit of flight and purpose.

During August there is a southward movement of the summer residents, quite imperceptible, but so effectual that by September 1 but few of them remain. At the same time some of our resident species are reinforced by individuals which breed in Nevada or north of us.

In the first week of September Gambel's Goose and a few other water birds which breed in cold climates begin to arrive, but not until the 20th is there a marked inflow of winter sojourners. Then the Intermediate Sparrow, Western Savanna Sparrow and American Pipit may be confidently sought. Four or five days later the Golden-crowned Sparrow arrives.

These birds are as constant in date of arrival and departure as any that visit us and being abundant are easily traced.

The following sometimes arrive as early as September 20: Short-eared Owl, Sharp-shinned Hawk and Audubon's Warbler; from 25-30, Townsend's Sparrow, Lincoln's Sparrow, Mountain Song Sparrow and Junco.

In the March-April BIRD-LORE I intended to name the Western Savanna Sparrow as leaving about May 1 instead of Townsend's Sparrow.

Several confusing forms of Song Sparrows, Juncos and Horned Larks visit us in winter.

SUGGESTIONS FOR THE SEASON'S STUDY

Nesting.—What birds are found nesting in August? Are they rearing first or subsequent broods? Among the birds breeding in your vicinity which species raise one brood? Which two? Which three broods? Have you positive evidence that any species succeeds in rearing three broods?

Song.—Note the dates when various birds are last heard to sing. What young birds are heard singing in August? What evidences are observed of a second song period after the molt is concluded?

The Molt.—The molt cannot be studied to advantage in living wild birds, but various evidences of it may be observed at this season among young birds changing their nesting for the first winter plumage, and with such adult birds as the male Bobolink or Scarlet Tanager when losing their bright breeding dress for a dull winter costume.

Migration.—Note the first signs of migration in the flocking of birds and the return nightly to a given roost; good examples are Swallows, Red-winged Blackbirds and Robins. The roosting habits of these birds form most interesting studies. When are the first migrants from the north observed? Which of the birds nesting in your vicinity is the first to go south, that is, to disappear? What is the northern limit of the breeding range of these species? Do you observe any connection between their breeding range and the date of their departure? During the first half of August some previously common birds will be very rare—Baltimore Orioles, for instance—but in the latter half they will again become common. Are the late August birds newcomers from the North or our summer resident birds, who in early August were molting? Among migrants from the north are the first comers young or old birds? At the time of the full moon in September,

night migrating birds may be observed in large numbers with a low-power telescope; even a mariner's hand-glass will prove serviceable. The telescope should be focused on the moon, against which birds in passing are silhouetted. (See Scott, Bull. Nuttall Orn. Club, V, 1880, p. 151; Chapman, 'The Auk,' V, 1888, p. 37.) Why do more birds strike lighthouses in the fall than in the spring? (See Allen, Bull. Nuttall Orn. Club, V, 1880, 131. On the general subject of migration, see especially, Brewster Memoir No. 1, of the Nuttall Orn. Club, of Cambridge, Mass.)

SUGGESTIONS FOR THE SEASON'S READING

Thoreau: 'A Week on the Concord and Merrimac Rivers.' Torrey: 'The Passing of the Birds' in 'The Foot-path Way.' Flagg: 'August and September' in 'A Year with the Birds.' Bolles: 'At the North of Bearcamp Water.' Wright: 'A Song of Summer' and 'Rustling Wings' in 'The Friendship of Nature.' Crockett: 'August' and 'September' in 'A Yearbook of Kentucky Woods and Fields.' Ingersoll: 'Nature's Diary.' Chapman: 'Where Swallows Roost' in 'Bird Studies with a Camera.'



What Bird is This?

Field Description.—Length, 5.25 in. Upper parts olive-green. Under parts soiled yellowish white.

NOTE.—Each number of BIRD-LORE will contain a photograph, from specimens in the American Museum of Natural History, of some widely-distributed, but, in the eastern United States, at least, little-known bird, the name of which will be withheld until the succeeding number of the magazine, it being believed that this method of arousing the student's curiosity will result in impressing the bird's characters on his mind far more strongly than if its name were given with its picture.

The species figured in June is the Cape May Warbler.

For Young Observers

Bird Rhymes

BY FAITH C. LEE

I

OVENBIRD

See him as he struts around!
Who could be more dignified?
Perhaps it is his golden crown
That lends that air of foolish pride.
With olive back and spotted breast,
He thinks he's cousin to the Thrush!
Well, I'll tell you, but don't tell him,
He's but a little warbler! Hush!

II

RED-EYED VIREO

When overhead you hear a bird
Who talks, or rather, chatters,
Of all the latest woodland news,
And other trivial matters,
Who is so kind, so very kind,
She never can say no,
And so the nasty Cowbird
Drops an egg among her row
Of neat white eggs. Behold her then,
The Red-eyed Vireo!

Notes from Field and Study

Does the Green Heron Fish in Deep Water?

That the Green Heron is an habitual wader is well known to all who are familiar with it, but that it will go into water beyond its depth is a fact I have not seen recorded. One day in September, 1898, I observed an individual of this species standing on the edge of a plank projecting some six inches out of water. Seeing that he was on the lookout for prey, I watched him closely, wondering why he had chosen so inconvenient a place from which to fish, when presently, as if to show that he understood perfectly well what he was about, he suddenly and without the least hesitation, plunged into the water after a fish that had come to the surface some three or four feet away. Although he missed his aim, the effort was well meant and, to judge by appearances, not the first of the kind. Turning about in the water, he rose from it with little difficulty and with a few flaps was back on the plank, where, shaking out his plumage, he proceeded to plume himself carefully. Before he had completed this operation he was unfortunately frightened off by the approach of some boys.

The scene of the above incident was a deserted iron pit, which, lying in a low place, has for several years been more or less deeply flooded, according to season and rains. Having become well stocked with small fish and frogs, and offering the additional attractions of mud flats, shallows and considerable seclusion, this old iron pit, somewhat over an acre in extent, has been a favored feeding ground for both Green Herons and their larger relatives, Night Herons. To further describe, the plank spoken of above was a remaining part of the old shaft. This, at the time in question, was well out in the pool and surrounded on all sides by water ranging from three to six feet deep.

With these facts before us, two points are clear. First, there was nothing to pre-

vent, but on the contrary everything to urge this Heron to feed in the usual way; second, in plunging into the pool where he did he entered water so much beyond his depth that he could not possibly have touched bottom in a way to assist him in getting out.

That this one instance of an individual Green Heron plunging into deep water after food proves such to be a natural habit of the species can hardly be said. I would add, however, that further study of the feeding habits of the Green Heron, with a view to settling this question, convinces me that a quite usual method of fishing is for it to watch from a stand a few inches above the water and from there to jump quickly down upon its prey.—SAMUEL H. BARKER, *Wyncote, Pa.*

Notes on the Ruby-throated Hummingbird

We have had Ruby-throated Hummingbirds for many years regularly in our garden, but did not find any nest till 1898. We were then greatly gratified by finding a nest on an apple tree. The old birds were very tame when they had young; a photograph was taken of the female feeding only a yard from the camera. Next year we were surprised that they had built their nest on a low branch of a pear tree, that one could reach. The nest was seen as soon as commenced; only the foundation was laid on a thin outer branch, which was added to every morning till completed.

There was no appearance of hurry, for it took two weeks to finish the nest. The building went on so slowly that I sometimes thought it would be abandoned. I saw only the female take any part in the work. The motion of the bird while shaping the nest was comical, bouncing down and turning around quickly. What was wanting in weight was made up in energy. The nest was built with vegetable wool, I think the woolly part of the seed-

bolts of the buttonball tree, being of that color and texture; the sides of the nest were solidly compacted. Unlike the usual style of nest-building, the nest and all inside was finished before the outside received its embellishments. This was done lastly, and was the most interesting part of the building; or, I may truly say, decorating. The little bird, with its long bill, could reach nearly all the outside of the nest while sitting in it; looking over the side she artistically covered it piece by piece with lichens that gave the domicile the appearance of the bark of the tree. These little pieces of lichen stick on quite tightly; there is a network of fine spider-web over the rough finish, and on this the little plates of lichen was stuck and pressed on firmly. I am inclined to think the bird used a gum from the balsam of fir tree, for while finishing the nest she frequented a tree of that kind and pecked at the terminal buds; it may have been for insects, but I think for the sap that exudes from the buds, as some other birds use it—particularly the Baltimore Oriole. I never see them so engaged after building time. The female Hummer seemed very anxious about external appearances, as she frequently looked over the outside and touched up the beautiful covering while incubating. I did not look into the nest while the eggs were in it, but in due time two little downy heads appeared above the edge of the nest. The female bird did not cover either eggs or young as regularly as most small birds do. I was afraid her absence would spoil the eggs, for she slid off when any one passed down the path or was working in the garden near by; yet the eggs hatched.

I never saw the male take any part in feeding; he was often looking on from a dead twig of a near-by tree, and once I saw him make an attempt to drive away a Sparrow; this was worth observing, as there were many Sparrows and other small birds about. I took particular notice they did not alight on the branch this nest was on, but on all other parts of the tree. There was a pear growing on the tip end of the branch, and as it grew larger it began to lower the nest on one side, but

the inmates seemed equal to the occasion, for they kept their heads and bodies as far on the opposite side of the nest as possible. While the bills of many young birds are proportionately longer, the bills of the baby Hummers are shorter than their parents'—not more than half their length. The method of feeding is a curious instance of nature's means to an end; the old bird puts its bill quite down the throat of the young, and with a gurgling and quivering motion, shaking its head up and down, discharges the nourishment into the young one's crop or stomach. This is often repeated, especially in the early morning and evening, at an interval of seven or ten minutes. The little creatures soon fill the nest tightly; in two weeks they appear uncomfortably close, when one will get on the side of the nest, and, soon after, out of it, returning at night to sleep in the nest, till able to fly well, after which they do not forsake the locality as many birds do, but feed and rest near by for several weeks; they choose a dead twig of a near tree or shrub, where one rests at a time; as soon as another one comes the first moves off as if playing tag. The young remain grayer in color than the old birds, probably till the spring. I frequently saw them catch small flies on the wing in late summer and return to their perch, sometimes uttering a very light twitter. About the middle of September they left for more congenial climes. This year, 1900, a pair came, perhaps the same birds, as they built on a low branch of a pear tree close to the old site.—HENRY HALES, *Ridgewood, New Jersey.*

Food of the Downy Woodpecker

On August 9 and 10, 1898, I saw a Downy Woodpecker at work on a mullein head pecking open the seed-cases, almost every one of which held a little yellowish white grub rolled up inside. I found that seed-vessels that contained grubs were brown, while those on the same stalk free from them were still green, and observed that the Woodpecker only opened the brown ones.—W. E. CRAM, *Hampton Falls, N. H.*

Book News and Reviews

MY BIRDS IN FREEDOM AND CAPTIVITY. By the Rev. HUBERT D. ASTLEY. New York: E. P. Dutton & Co. London: J. M. Dent & Co. 1901. 8vo. xvi + 254; 22 full-page photogravures; 17 line cuts.

The author of this beautiful volume writes from extended experience both in the field and in the aviary. As a keeper of caged birds he insists that the captive shall be well housed, well fed and well watered, and under these conditions he believes that, as the bird cannot reason or "look backward or forward in actual thought," it has therefore neither regrets nor longings, and with all its wants properly cared for is presumably happy. Wild and untamable birds, he adds, should never be caged. Many of the birds treated have been studied both in confinement and in nature, and it is apparent that the intimate knowledge of a bird's traits which may be derived from a close study of captive individuals is of decided assistance in studying the ways of the same species in its haunts. Of special interest to American readers is the account of the breeding of a released pair of Cardinals.

The illustrations in photogravure and line are all by the author and are a very decided addition to the text. Several indeed, particularly of the line cuts, we should rank among bird drawings of the first class. Both as author and illustrator, Mr. Astley has therefore paid fitting tribute to feathered friends in whose companionship he has evidently found life-long pleasure.—F. M. C.

THE BIRDS OF MASSACHUSETTS. By REGINALD HEBER HOWE, JR., and GLOVER MORRILL ALLEN. Published by subscription. Cambridge, Mass. 1901. 8vo. 154 pages.

After devoting eight pages to an outline of the faunal areas of Massachusetts, the authors present annotated lists of (1) 362 species and subspecies as entitled to recognition as Massachusetts birds, (2) four extirpated species, (3) two extinct species, (4)

fifteen introduced species, (5) seventeen erroneously recorded species and (6) two hypothetical species. The main list "gives the status of each species, then the dates of arrival and departure of species in Massachusetts, followed by annotations taken from already published local lists of importance, and others supplied by trustworthy ornithologists from desirable localities, especially along the coast." Evidently both care and judgment have been duly exercised in bringing together the information here presented, the authors' conservatism in excluding species of doubtful status as Massachusetts birds being especially commendable, and adding greatly to the value of their work. It is unfortunate, however, that they evidently did not avail themselves of the guidance of some one whose wider experience would have prevented them from rejecting the only system of classification current in this country. It was to establish and maintain a standard system of classification and nomenclature that the ornithologists of this country formed the American Ornithologists' Union, and in failing to follow the classification of the Union's Check-list, the authors of 'The Birds of Massachusetts' have greatly impaired the practical value of their work and have shown an undesirable, because unwarranted, spirit of independence.—F. M. C.

MR. CHUPES AND MISS JENNY. The Life Story of Two Robins. By EFFIE BIGNELL. New York. Baker and Taylor Co. 16mo. xi+250 pages; 8 half-tones.

The author of this volume may claim to be a bird-lover in the best sense of the word. Having rescued two Robins, one from cats, the other from caged life, she evidently devoted the greater part of her time to their care. That they more than repaid her, no one who reads this account of their lives, with its many surprising illustrations of individuality and intelligence, will doubt. The book is attractively written, and its author's evident sympathy with her subjects, and close observation of their

habits, make her story not only an interesting, but valuable contribution to the literature of biographical ornithology.—F. M. C.

The Ornithological Magazines

THE OSPREY.—Since our last notice the January–February and March–April numbers of 'The Osprey' have appeared. The following list gives the titles of the papers, all of which contain much of general interest: 'A Trip to the Dismal Swamp,' by Paul Bartsch; 'William Swainson and His Times' and 'The Osprey or Fishhawk,' by Dr. Gill; 'Photographing the Caprimulgidae,' by H. K. Job; 'Warden's (the first) List of the Birds of the District of Columbia,' by William Palmer, and 'Nesting of the Inca Dove in Mexico,' by Josiah H. Clark.

The articles by Dr. Gill and Paul Bartsch appear in both numbers, and will be completed in some subsequent issue. It is evident that the original photographs were good, consequently we are sorry a little more care was not exercised in making the reproductions, for most of the illustrations are poor.—A. K. F.

THE WILSON BULLETIN NO. 34.—Beginning with this number Frank L. Burns assumes responsibility for the editorial and general management of the 'Bulletin,' which is now issued from Berwyn, Pa. The subject matter consists of a number of short articles, general notes, editorial remarks and notices of publications received. Among the more important and interesting articles may be mentioned the following: 'Rough-winged Swallows Nesting on a Government Tug in Port Royal Harbor,' by Walter Hoxie; 'Bachman's Sparrow in DeKalb County, Georgia,' by R. W. Smith; 'Notes on the Mergansers,' by William B. Haynes; 'The First 20th Century Horizon at Oberlin, Ohio,' by Lynds Jones; 'Vernacular Ornithology of Delaware' and 'Crow Language,' by the Editor. Under the heading of 'Birds of Pennsylvania,' *et al.*, by B. H. Warren, M. D., we get an insight into the history of these publications ordered printed by authority of the Commonwealth, and consequently have a better understanding of the vague rumors

which have drifted beyond the borders of the state.—A. K. F.

THE CONDOR.—The May–June number of 'The Condor' presents an unusually interesting series of articles and notes. Barnhart describes the breeding habits of the Fulvous Tree Duck, Anthony contributes notes on the Guadalupe Wren, Skinner continues his papers on Mexican birds with an account of *Trogon caligatus*, and Beck describes his experiences in collecting eggs of the Golden Eagle in Santa Clara county, Cal., in an article illustrated with three plates. The more technical papers contain descriptions of five new birds from the Galapagos, Clipperton, and Cocos Islands by Heller and Snodgrass; and two new Yellowthroats from the coast of California by Grinnell. The Yellowthroat of the southern coast district is described as *Geothlypis trichas scirpacala*, while that from the vicinity of San Francisco Bay is named *Geothlypis trichas sinuosa*. There is the usual array of valuable field notes, among which should be mentioned the record of a Flores's Hummingbird taken at Haywards Feb. 20, 1901, by W. O. Emerson. This is the third known specimen of this rare bird and the second one collected in California.

The compilation of a State List, including an index to the literature pertaining to California birds, has been undertaken by Grinnell, who issues a call for information and especially for notes on water birds. Ornithologists throughout the country will welcome such a work, and with the active support of the Cooper club there is every reason to hope that it will prove more successful than previous attempts of this kind.

Exceptional opportunities for systematic bird study during the summer vacation are offered in the mountains and on the coast. Two courses are announced: one by W. W. Price, at his camp in the Sierras near Lake Tahoe, June 15–Sept. 15, and the other by Joseph Grinnell, in connection with the summer school of the Hopkins Seaside Laboratory at Pacific Grove on Monterey Bay, June 10–July 20. The localities selected are ideal for work of this kind, and the inauguration of such courses deserves the highest commendation.—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

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Bird-Lore's Motto:

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

WE had in mind an editorial on the tenth Supplement to the American Ornithologists' Union's 'Check-List,' which presents the results of the deliberations of the Union's Committee on Classification and Nomenclature, at its session held in Washington, in April last ('The Auk,' July, 1901, pp. 295-320), but our surroundings are so little in harmony with the technicalities of ornithology that we may well leave our proposed remarks until it is our misfortune to return to the editorial desk and in the meantime hope that all BIRD-LORE'S readers are as near the heart of the bird world as this 3d of July finds us.

The days are long in this latitude. For birds they begin at half after three in the morning and eighteen hours have passed before the last bird's voice is hushed. One wonders whether the greater amount of food received per day does not here increase the rapidity of nestlings' growth and shorten their time in the nest.

There is no marked sultry noonday period, but from morning until night birds can be seen and heard in numbers.

To the eastern bird student doubtless one of the most striking sights in the bird-life of this region is furnished by the Prairie Gulls and Terns.

Experience has so taught us to associate these birds with bays and sandy beaches, where alone their food is to be found, that it is not a little surprising to look from your tent door in the early morning and find the prairie round about dotted with Franklin's Gulls, looking more like chickens at first sight than members of the genus *Larus*.

Nor does one soon tire of the novelty of seeing these same beautiful birds or active Black Terns hovering thick over the ploughman in eager quest of grubs in the lengthening furrow. These Terns resemble Swallows in habit as much as anything. They appear to feed exclusively on insects, and it is only when high winds set the prairie grasses rolling in long billows, over which they glide lightly, hovering here and there to pick an insect from a grassy crest, that one is reminded of their relationship.

It was not, however, prairie birds that brought us to this region, but the feathered inhabitants of Shoal Lake itself with its often mile wide fringe of reeds and marshes. Here are to be found breeding, Grebes of at least three species—Western, Halboell's, and Pied-billed—White-winged Scoters, Mallards, Blue-winged Teal, Shoveller's, Scaups, and other Ducks; Sora, Virginia, and probably the Yellow Rail; Coots, or Waterhens, as they are much better called, in great abundance, Yellow-headed Blackbirds beyond calculation, Red-winged Blackbirds and Long-billed Marsh Wrens.

In the immediately surrounding prairies are Wilson's Phalaropes and Nelson's Sharp-tailed Finches, and on little rocky islets, or reefs, as they are locally known. Common Terns, Herring Gulls, Double-crested Cormorants and White Pelicans find secure nesting places.

But it is the life of the reeds which holds the strongest interest for the bird student at Shoal Lake. In the endless reed forests anything is possible, and from them as I write (at 10 P. M.) there issues a chorus of weird groans, whines and calls comparable to nothing known to man and which it requires little imagination to believe are uttered by creatures themselves unknown to man.

Shoal Lake, Manitoba, July 3, 1901.

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 (President of the Audubon Society of the State of Connecticut), Fairfield, Conn., to whom all communications relating to the work of the Audubon and other Bird Protective Societies should be addressed. Reports, etc., designed for this department should be sent at least one month prior to the date of publication.

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Encouraging Signs

Bird protection is daily receiving fresh impetus and that of the most valuable kind. It seems to be thoroughly understood that feather wearing is a custom to be condemned, and one only to be stamped out by good laws and practical education in the matter of the value of bird-life and its connection with general natural history, so that we hear less of the millinery side of the question, and the Audubon movement is reaching a higher plane. At the present time all the Atlantic states from Maine to Florida are linked by the A. O. U. law or its equivalent, and the experiment of sending out traveling lecture libraries of birds and nature books has been so successful in Connecticut that other states are following suit.

The future would be rosy, indeed, but for one cloud on the horizon, and that is

the difficulty of enforcing these laws that are our battle flags.

The proper local enforcement of bird laws is indeed a difficult task, requiring moral courage, tact, and a clear head; also the reporting of offenders should be made by a legalized official, who can act without the stigma of personality that must always be felt when we complain of the law breaking of our neighbors. If the deputy sheriffs of each county could be appointed as bird wardens, warning could be administered and the incorrigible prosecuted in a purely impersonal manner.

It has also been suggested that in order to make the laws effective in many places they should be posted in Hungarian and Italian, for the latter race come to us with particularly lax ideas about bird killing.

Undoubtedly the country is thoroughly aroused; the task now before us is to hold

the ground we have gained, and this can only be done by the most conservative and at the same time unflinching enactment of the laws. If our new laws become dead letters, then must the birds also die.

M. O. W.

THE Pennsylvania Society has a plan for organizing a series of traveling libraries to circulate throughout the state in order to awaken a wider interest in bird and nature study. A list of carefully selected books has been prepared and the libraries will be started as soon as the necessary funds are at hand. Having no dues, this Society is entirely dependent on voluntary contributions.

Reports of Societies

FIRST ANNUAL REPORT OF THE AUDUBON SOCIETY OF KENTUCKY

The Audubon Society of Kentucky regrets that during the past year more has not been accomplished in the furtherance of bird study and bird protection in the state. But it believes that good has been done in the schools, where bird days are observed; and among the people at large where, a better sentiment prevails with regard to the aims of the Society.

In specific work the Society has provided, for use in the schools, a handsome bird-chart that exhibits in colors many of our native song birds.

It has caused posters to be prominently displayed on the principal roads, setting forth the penalty for violation of the statutes relating to birds.

It has issued the following circular letter, together with other reading matter:

Dear Sir:—From observation and trustworthy statistics we learn that our wild birds are decreasing in numbers every year.

Believing that it is only necessary to call your attention to this in order to have your coöperation, we appeal to you to aid the Society in its efforts for bird protection.

We believe this may be done—

First—By making clear the practical value of birds as destroyers of insects harmful to crops.

Second—By preventing, as much as possible, the destruction of the eggs of wild birds.

Third—By reporting to the Society the

names of the violators of the law protecting birds.

We would particularly call your attention to the reports of the Department of Agriculture as to the usefulness of Robins and Field Larks to the farmer; and as these birds are often the especial marks of boys and irresponsible negroes and whites from the towns, we ask that you do all you reasonably can to protect them.

A postal card or a letter, addressed "Audubon Society," Henderson, Ky., will receive prompt attention.

Very truly yours,

AUDUBON SOCIETY OF KENTUCKY.

It has purchased a circulating library of the best bird books, including such authors as Burroughs, Chapman, Wright, Torrey and Coues.

The Society gratefully acknowledges the interest taken in its work by the Societies of the Falls cities and the substantial aid rendered it in the gift of a number of "Perry" pictures.

The Society would most earnestly ask the coöperation of all bird lovers, especially in the formation of branch societies throughout the state.

To this end it would like to hear from all interested in birds.

The Society has no membership fees, depending entirely upon contributions for support, and any respectable person may become a member.

In closing, the Society would call attention to some fundamental principles of bird laws.

(Here follows a digest of Federal and State laws.)

During the last fifty years, the sentiment in favor of bird protection has developed rapidly. Many laws have been enacted, amended and sustained by the courts. That these laws are still imperfect is partly the result of carelessness and partly of strong opposition due to ignorance or selfishness. Our game laws, unlike those of Europe, are maintained for the good of the people as a whole, not for the benefit of any one class, and their enforcement depends very largely on a general appreciation of the principles upon which they are based.

INGRAM CROCKETT, *Secretary*.

Henderson, Ky.

THE AUDUBON SOCIETY OF THE STATE
OF WYOMING

Pursuant to a call published in the morning and evening papers, quite a crowd of enthusiastic ladies and gentlemen assembled in the parlors of the Inter Ocean hotel, Cheyenne, April 29. Mr. Frank Bond was called to the chair and briefly stated the object of the meeting and the work which had already been done in the direction of securing pledges of support in the public schools and elsewhere. It being agreed that a society for the protection of birds and the enforcement of the state law was desirable, the meeting decided that four officers were necessary, viz.: A president, vice-president, secretary and treasurer. Officers to fill these positions were duly elected as follows: President, Frank Bond; vice-president, Mrs. John A. Riner; secretary, Mrs. N. R. Davis; treasurer, Prof. J. O. Churchhill.

It was ordered that all cards of promise to protect birds, their nests and eggs, after being signed should be handed to the secretary, Mrs. Davis, who will make a record of the name, residence and date in a book to be kept for that purpose. These cards are to be returned to the signer, who will also be supplied with an Audubon button as soon as they arrive, or as soon thereafter as possible.

It was found that public sentiment was overwhelmingly with the bird-protection movement, and that the new Audubon Society would soon embrace in its membership more than a thousand persons, in fact, two thousand members in Cheyenne, alone, did not appear an extravagant figure to those who met at the Inter Ocean hotel last evening. Because of the showing made, the treasurer was instructed to order the printing of a second thousand of pledge cards, the first thousand being already nearly exhausted. The question of ordering another thousand buttons was also favorably discussed and the matter left to the officers of the Society, who will act promptly as soon as it becomes evident the buttons will be needed.

Bird lovers, a term which will soon include all of the farmers and agriculturists

of the country, if it does not do so already, will be gratified to learn that the Audubon Society started out with a membership of 900, the result of a few days' work only.

ILLINOIS SOCIETY

In all work the thoughts of a secretary or treasurer are apt to play around the dry details of statistics and figures, and so it is to be expected that in this report of the work of the Illinois Audubon Society for its fourth year they must form a part.

The exact membership of the Society is difficult to state, for members move away or die and the secretary does not know it. Without, therefore, claiming accuracy as to the figures, our present membership counts 870 adults and 7,904 juniors—a total of 8,774. We have sent out during the year nearly 5,000 leaflets; part being purchased from other societies and part being our own publications.

In connection with our efficient game commissioner, Mr. Loveday, we have placed "Warnings" in every one of the 2,700 post offices in the state. These warnings gave an outline of the laws regarding birds and referred for information to the game commissioner and the secretary of the Audubon Society.

Another joint work of the game commissioner and this Society is the practical suppression of the sale of living wild birds in the Chicago bird stores. Several test cases have been brought and the decision given in favor of the birds. This is a long step in the right direction and leads us to hope that the time may come when our law, which forbids the sale and purchase of birds alive or dead, may also be enforced as regards the dead birds.

During this last year we have adopted the little paper *By-the-Wayside*, which is the paper used by the Wisconsin Society in its junior work, for the Illinois juniors also. It has recently been moved from Milwaukee to Madison and makes its monthly visits to the children from that place. There has been a large increase in the number of meetings held by Womens' Clubs, Teachers and Farmers' Institutes, etc., and a promise of greater increase in the future.

We had greatly hoped that Bird Day would be established by law at the session of the State Legislature just closed, but it has been placed in the hands of a most excellent commission, with the state superintendent of schools and one of our Audubon directors—county superintendent of Schools of Cook county—among its members; so its prospects are bright. Some of our local branches—particularly those in Chicago Heights, Alton, Galena, Lake Forest, Streator and La Grange—are doing excellent work, but the finding of interested and efficient officers for local societies is our most difficult problem.

We have increased our classes of memberships by two, making our present memberships five: Sustaining-paying \$25; associate, \$1; regular, 25 cents; active, \$1 a year, and juniors paying no fees. We have also made several changes in our constitution, and have formed from our fourteen directors six committees, thus dividing the work and responsibility more evenly. The old nursery song of the London bells is frequently in our minds:

“When I grow rich
Say the bells of Shoreditch.
When will that be?
Rang the bells of Stepney.”

Like the “great bell of Bow” we are “sure we don’t know,” but when the good time comes we have visions of a lending library and an illustrated lecture and other such helpful delights like those of some of our sister Societies. Till those good times come we must make our cents (or sense!) do the work of dollars and do what we *can* till we can do what we *would*.

MARY DRUMMOND, *Secretary*.

DELAWARE SOCIETY

The annual meeting of the Delaware Audubon Society was held on Saturday afternoon, May 25, in the Friends’ Meeting House, Fourth and West streets, Wilmington. The reports of the secretary and treasurer were read. Mrs. W. S. Hilles’ report showed a membership of 512. The Society has been in existence thirteen months. The law passed by the recent Legislature to protect birds was read and comments made

concerning it. It was decided to have a number of cards containing the law printed, distributed in the city and state and hung in the parks and other public places. A reward will be offered by the association for information leading to the arrest and conviction of any one violating the law.

A vote of thanks was offered to William Dutcher, treasurer of the American Ornithologists’ Union, of New York; Dr. T. S. Palmer, of the Department of Agriculture; Professor Witmer Stone, of Philadelphia, president of the American Ornithologists’ Union of Pennsylvania; and Walter D. Bush and Alfred D. Poole, who assisted in getting the law through the Legislature. A prize of five or ten dollars is to be offered for the best essay on the subject of birds to be written by a boy or girl under the age of nineteen years.

The defeat of the pigeon bill was brought up for discussion and congratulations exchanged. In speaking of the bill, it was said that there are only three species of birds that are not protected by law; viz., the English Sparrow, the Red-winged Blackbird, and the Crow Blackbird, which are regarded as injurious to crops.

The Society hopes to extend its course of lectures to the people in the state outside of the city, but for the present, on account of lack of funds, it is unable to do so. The membership is free and therefore, in order to continue the work, a contribution list is to be started.

After the business had been transacted a public meeting was held. No officers were elected because a quorum of directors could not be secured.

A. R. Spaid, President of the Society, gave a talk. Fifty colored views of birds were shown, most of which had been made by Mr. Spaid during the winter months. The lecture was entitled “Birding With a Camera.”

WISCONSIN SOCIETY

(*Fourth Annual Report*)

During the past year the work of the Society has been carried on with vigor. Large numbers of leaflets on bird protection have been distributed, an especial effort

being made to spread a knowledge of the usefulness of birds among the farmers of the state. The wearing of feathers for ornament is almost a thing of the past, and unquestionably an impression has been made upon women, but we realize that as soon as the Parisian law-givers announce that aigrettes and wings are again fashionable, we shall have everything to do over again, unless we carry on educational work with all possible earnestness in this little breathing space that is granted us.

One of the primary objects of Audubon Societies, all over the country, has been to secure better legislation for the protection of birds. Wisconsin, following the example of several eastern states, has recently enacted a law which forbids the killing of our wild birds, and makes it illegal to deal in their plumage. This applies not only to resident birds, but to all that visit the state during migration.

As it was thought desirable that some one should speak for the work of the Audubon Societies of the United States at the meeting of the National Federation of Women's Clubs, held in Milwaukee last June, the Wisconsin Society, aided by the societies of Rhode Island, Massachusetts, Pennsylvania, Illinois, Connecticut, New Hampshire, New York and Ohio, secured Miss Mira Lloyd Dock, of Harrisburg, whose earnest and moving address on "The Quality of Mercy" will be long remembered by those who heard it.

On April 13, Prof. O. G. Libby, of the University of Wisconsin, gave an illustrated lecture on "Our Native Birds" for the teachers and school children of Milwaukee. This lecture took the place of the customary annual meeting.

The main line of work in the Society has been to develop an interest in bird protection and bird study among young people, and in this it has achieved remarkable success, having brought 13,441 enthusiastic teachers and children into its ranks. A monthly paper, costing twenty cents a year, with a course of bird-study, is issued, prizes and honor badges are awarded for the best reports and observations, and our little wren button is furnished at a nominal

price, while the Gordon Library of bird books, and the collection of colored bird slides, owned by the Madison Branch, are sent all over the state. This work has been repeatedly commended by the eastern societies, and it is certainly uncommon for so much to be accomplished with so small a sum of money as is at the disposal of the Executive Board.

ELIZABETH G. PECKHAM,
Secretary.

A Good Example

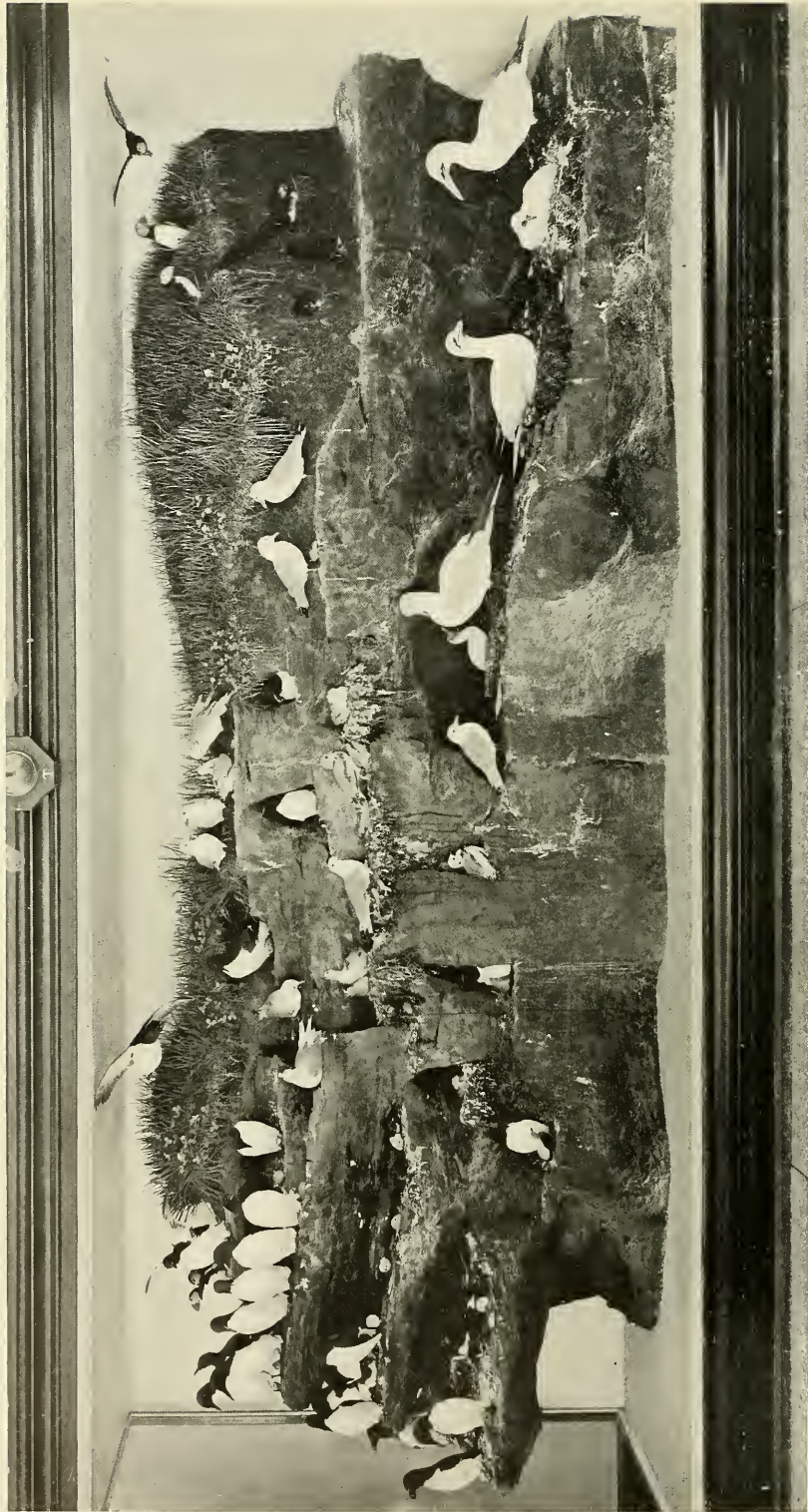
Many attempts have been made to compound a "white list" of milliners who, if they could not wholly dispense with bird plumage in their trimmings, owing to the insistence of customers, would at least make it easy for those wishing *Audobonnets* to obtain them. This attempt has, we regret to say, met with no general response, so that it is surprising as well as gratifying to hear that the Shepard Company, of Providence, R. I., held a successful exhibition and sale of these hats and bonnets on the 15th and 16th of May. The circular announcing the exhibit, after a summary of bird destruction for millinery purposes and the work done for bird protection, says:

"THE SHEPARD COMPANY, sympathizing with this great and beneficent work and believing that most women, if conscious of the extent of this slaughter of the innocents, as well as of the beautiful and fashionable effects in millinery which are possible without their use, has decided to hold a special exhibition of hats and bonnets in which none of the articles listed "contraband" by the Audubon Society shall appear.

"This exhibition is intended to demonstrate that hats and bonnets can be fully in keeping with prevailing styles and will show exceptional beauty in design and color without the use of the plumage of wild birds.

"Carefully selected specimens of the latest foreign and domestic styles will be on view.

"We invite the inspection of the public, and especially of such women as are interested, to assist in influencing popular opinion along humanitarian lines.



THE NEW GROUP REPRESENTING A SECTION OF BIRD ROCK, GULF OF ST. LAWRENCE, IN THE AMERICAN MUSEUM OF NATURAL HISTORY

The birds included are Common and Brünnich's Murres, Razor-billed Auks, Puffins, Gannets, Kittiwake Gulls, and Leach's Petrels

Bird = Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. III

SEPTEMBER — OCTOBER, 1901

No. 5

First Impressions of Hawaiian Birds

BY H. W. HENSHAW

(Concluded from page 125)

I HAVE dissected many of these Hawks, and in the stomach of only one have I discovered the traces of birds. This individual had by some means caught two Akakanis. Nearly all the specimens examined had mice and small rats in the stomach. Large spiders, also, of an introduced species, are fast becoming a popular food with Io, and I have found the stomach of several individuals crammed with these insects.

Whether in former times the natives entertained a superstitious regard for Io I do not know. It may well have been so, for today Io has not the slightest fear of man. He will sit upon a limb and dodge stone after stone with apparent unconcern, lazily flapping to another perch if the missiles come too close for comfort. As a result of his confiding disposition, poor Io is fast becoming rare, where formerly he used to be common. Under the mistaken impression that he means mischief to the chickens, Io is shot whenever seen. It would be unsafe to say that Io never molests poultry, but much inquiry among farmers and much observation of the habits of this Hawk justify me in stating that the damage to poultry from Io's claws is exceedingly small. If it ever kills poultry, as doubtless it occasionally does, the damage is compensated a hundred times over in the immense numbers of mice and rats destroyed. It will be greatly for Hawaii's interest if this Hawk is carefully protected.

I have purposely left to the last the bird which I consider to be the most interesting of all Hawaiian birds, as it is the most numerous and most widely spread. This is Elepaio, a Flycatcher by birth and lineage, a Wren, Creeper and Flycatcher by habit and education.

Most Hawaiian birds live in the deep forest or frequent the high trees. Thus the bird-lover who would make their acquaintance must pay a price.

He must seek them out and follow them, where wayfaring is hard and laborious, and not wholly unattended by danger. Not so with Elepaio. This little bird ranges from near sea-level far up on the mountain side, and everywhere he is common. He wears no coat of many and bright colors to make his feathers desirable in the eyes of royalty, but his sober tints of black, white and chestnut are so tastefully contrasted and so strikingly displayed that among his green surroundings he presents a most charming picture.

The first crunching step into the thicket elicits a sharp note of challenge, and presently you are aware of a little bunch of chestnut, brown and white feathers swaying sidewise on an upright twig like a Marsh Wren, with his tail cocked at right angles with the body—this is Elepaio. Now Elepaio is very curious, and after calling out "*elepaio*" once or twice in no uncertain tones that you may be sure of his identity, the little busybody proceeds to investigate you and your business. The birds, for by this time there are several gathered about you, will not hesitate to approach within two or three feet, and rest assured that before they leave they will be well informed as to your intentions. Once satisfied that you are to be trusted, they proceed to their own business as though unconscious of a strange presence.

In the art of hunting insects of all kinds, Elepaio is past master, and in following his craft he unites the methods of several birds. He climbs the old tree-trunks, clinging to the sides like a Wren; now he seizes a twig with his strong claws, and for convenience of inspection hangs head downward like a Chickadee; now he creeps into the lichens out of sight, finally emerging many feet beyond to sweep up a flying insect with a snap of his bill, as if to assert his right to be called Flycatcher. As a matter of fact, Elepaio, despite his bristle-guarded bill and other flycatcher-like characters, is decidedly more of a Wren than a Flycatcher in habits, disposition and motions.

Elepaio is of friendly disposition, and is never found save in pairs or several together, and more often than not in company with other species. Their hunting excursions extend from the topmost branches of the highest forest trees to the low shrubbery, and occasionally even to the very ground, where I have seen them hopping about like sparrows. Nine-tenths of their insect food are gleaned wren-like from the branches, so little of a catcher of flies is Elepaio.

Elepaio shares with Omao that curious habit of lowering the wings by the side and tremulously shaking them as young birds are wont to do.

Elepaio has a number of notes. A Song Sparrow-like chirp is its alarm note, as when it hears a strange noise. In addition, it has a sharp Flycatcher-like whiff which is its call-note proper, as any one may prove to his satisfaction by imitating it.

Its name, "Elepaio," is the native interpretation of what the bird itself no doubt regards as its song. It is a loud, clear and insistent call, special emphasis being laid upon the second syllable. Heard from the forest depths it is pleasing, though we may call it a song only by courtesy and because the bird has nothing better to offer in the way of music. Elepaio's nest is a beautiful structure of grass, mosses and lichens placed in the fork of a shrub, usually within twenty feet of the ground. It is the only Hawaiian woodland bird, the nest and eggs of which are well known.



From Wilson's 'Aves Hawaiiensis'

OU (*Psittacirostra psittacea*). See page 123

In the life history of Hawaiian birds there is at present a great gap. Next to nothing is known of their nests, nesting habits and eggs. The reasons are not far to seek: The forests are high and so dense is the undergrowth that, however bright the sun, its rays penetrate but feebly into the deep forest recesses, which, in consequence, are but feebly lighted. Moreover, the lower levels are cold and damp as compared with the upper heights, and hence are not at all suitable for nesting sites. Except Elepaio, probably no Hawaiian woodland bird builds its nest low down save in very exceptional cases.

When nests are visible, as they often are, they are far up in the trees

and on the outer extremities of the branches, where they are inaccessible to all save creatures with wings. Moreover, a dense covering of mosses, lichens, ferns and shrubs envelops all the limbs, and in them a multitude of nests may be hidden and no one be any the wiser. More than once I have seen birds whose nests are yet unknown, with nest material in bill; but, as it happens, they have each time been on their way to distant trees, and one must possess wings to follow a bird through such a tangle where the sight is restricted to a few square yards. It will be long, therefore, ere much is known of the inner life of Hawaiian birds.

There is one characteristic of the woodland birds of Hawaii which is so unique as to deserve brief mention. I allude to the powerful musk-like, but not unpleasant, odor which attaches to the feathers of most of them. Perhaps this odor is more marked in *Ou* than in any other species. It is so strong in this species that I am sure I have detected it from living birds when near by on low trees, although my sense of smell is anything but acute. In a freshly killed specimen this odor is simply overpowering, and is much stronger in the early morning than later in the day. At first I thought it probable that the scent was connected with the oil with which the birds dress their feathers, which, in a climate so wet as this, must be used often and in unusual quantities. However, I have been able to detect only a slight odor from this oil when freshly squeezed from the oil-gland.

If this characteristic odor originated after the ancestors of the present species reached the islands, and if it is in any way beneficial to its possessors, it seems singular that it should not be shared by all the woodland species whose habits are analogous. Several species are, however, wholly without it. It is possible, as I believe Mr. Perkins has suggested, that what at first seems to be of trivial significance may be found to have a deeper meaning, and that this odor may point to the ancestry and to the ancestral home of some of the island birds. As the American *Cœrebidæ*, according to Dr. Gadow, are the most likely group from which the Island *Drepanididæ* are derived, it would be most interesting to discover if the plumage of any of the former have the same characteristic scent. In this connection it is interesting to note that the *Oo*, *Omao* and *Elepaio* are believed by Dr. Gadow to have a non-American origin and not to be *Drepanine*. It is significant that the feathers of these species, together with *Io*, do not possess the peculiar odor which is shared, I believe, by all the Island *Drepanine* forms, certainly by all of them resident upon the Island of Hawaii.

I have alluded above to the songs of Hawaiian birds. In common with a widespread belief, I had expected to find little music in Hawaiian woods, and I was greatly surprised. Certain species of Hawaiian birds, it is true, sing rarely. Thus, though I have seen perhaps a hundred individuals of *Akialoa* (*Hem. obscurus*), I have yet to hear its song, and the same is true

of the *Oreomyza mana*. The songs of certain other species, as the Amikihi (*Himatione virens*), are short and feeble. Though pleasant to the ear, they cannot take high rank in the scale of bird music. There are other species whose songs are both sweet and melodious, like the Ou. Then there are others again, like the Iiwi and the Akakani, which sing the year through, and at certain seasons are the most persistent singers I have ever heard. The latter, especially, is notable for singing when it is through



From Wilson's 'Aves Hawaiiensis'

IWI (*Hemignathus procerus*)

feeding, and it has assembled in small colonies in the tree-tops for its midday siesta. At such times most species are silent. But the Akakani sings itself to sleep with a soft, delightful lullaby to which the gentle rustle of the tree-tops forms a fitting accompaniment. The Iiwi has a variety of notes, most of which are sweet and pleasing. But where birds give so freely of their songs as do the Iiwi and the Akakani, surely we may delight in their spontaneousness and not be over-critical as to the quality.

In conclusion, a word may be added as to the future of the Hawaiian

birds. As is well known, several island birds are already extinct, especially upon Oahu, which has been extensively deforested. Upon Hawaii the Noho (*Pennula ecaudata*) has been extinct for years, having been exterminated by the domestic cat run wild. Had any of the wingless Rails been fortunate enough to survive the inroads of Tabby, it would only have been to meet their fate from the mongoose, which spares no living thing it can reach.

The Namo has been exterminated for its feathers, and the Oo must soon share the same fate. The native Duck (*Anas wyvilliana*) and the Gallinule upon the Island of Hawaii are rapidly diminishing under the never-ceasing attacks of the mongoose. The Puffin and the Petrel are sharing the same fate, and the native Goose is in danger, though likely to maintain itself for some time to come.

The above birds have become, or are becoming, extinct from known causes, but some species have died out for no assignable reason. The *Chætoptila angustipluma* is a case in point. Though said to be rare in the time of Peale and Pickering, both naturalists saw it, and we may be sure that for many years subsequent to the visits of these men no change whatever occurred in the forests. Yet from their day till now the bird has never been seen, and the natives do not know it even by name. The cause of its extinction will probably ever remain one of Nature's own secrets.

In connection with the future of Hawaiian birds, it is not to be overlooked that upon all the islands the forest is diminishing, owing to the devastations of cattle and the ax of the settler, and the birds living in the deforested tracks must either die or be forced into the untouched areas, where soon a sharp struggle for existence must begin.

Some species, like the Alala (*Corvus tropicus*), are restricted to certain areas beyond which they seem never to attempt to pass. In the case of the Crow, the sole reason appears to be that, having first attained a foothold in a comparatively dry district, the birds are unwilling or unable to encounter a moister climate, even though the windward forests adjoin their own and abound with suitable food.

Viridonia furnishes a still more remarkable instance of restricted habitat. This, one of the rarest of Hawaiian birds, is confined to a forest area a few miles square, and is absolutely unknown outside its own little kingdom.

That extensive deforestation should have a marked effect upon Hawaiian birds, wholly unused as they are to competition of any kind, is what we might expect; but there remains to be recorded a still more remarkable fact indicative of the singular sensitiveness of Hawaiian birds to change. Large sections of forest land on Hawaii that have been but slightly interfered with by man, and that are nearly as dense and impenetrable as they ever were, have been almost wholly abandoned by birds within the last ten years. For this abandonment no reasonable explanation suggests itself.

The natural presumption would be that the birds, disliking even the semblance of interference, have simply moved into adjoining tracts. Such may be the explanation here. But bearing in mind the unaccountable extinction of some Hawaiian species and of the intense habit of localization of nearly all surviving species, it is not wholly improbable that large numbers of the dwellers in such tracts have succumbed to changes so slight that hardier mainland birds would scarcely have noticed them at all, or would have readily adjusted themselves to them.

For species like the Iiwi and the Akakani there is much hope. These nectar-loving birds are accustomed to follow the flowering of the ohias from tract to tract and from lower to higher levels, and so long as considerable areas of this tree remain it is probable that these beautiful and interesting birds will survive.

The Ou, too, seems to be something of a wanderer, owing, no doubt, to the wide distribution of the icie vine and its irregular time of flowering and seeding. This fine bird also may be expected long to survive. But there is no such favorable outlook for the bulk of the Hawaiian birds. Developed under conditions the most unusual and peculiar, each within its own chosen and restricted sphere, changes of any sort, and competition, however weak, are likely to find them unprepared and, in the light of their past history, are almost sure to prove disastrous. Like the Hawaiian race, they will probably disappear rapidly, leaving behind as tokens of their existence a few dried skins in museums and some meager pages of life histories.



A FAMILY OF YOUNG SCREECH OWLS

Natives of Bronx Park, New York City. Photographed by C. William Beebe

A Chebec's Second Brood

BY RALPH HOFFMANN

WHEN we reached Alstead, on July 3, 1901, a pair of Chebecs, or Least Flycatchers, were busy in some apple trees in front of a piazza where we spent much of the day. The pair made quiet but constant journeys through the branches, and the trips ended so often in one particular crotch that it did not take long to "mark down" the nest. The four young birds already showed as a bunch of gray down above the rim. Three days later they had left the nest, and for over a week they sat close together in one or another of the half-dozen trees which constituted their parents' hunting ground. The empty nest was now taken down and given a place in our collection. When the young had been out two days, and were being fed constantly by the male, I saw the female fly to the empty crotch, where the old nest had been. In a moment she repeated her visit, and when I walked to the tree, I saw the skeleton of a new nest already completed. Two days later the nest was finished. It was interesting to note that the beginning of the new series of instinctive acts involved in raising a second brood did not destroy the force of the last series, for when the nest was finished the female returned to help the male feed the first brood.

While the little Chebec was brooding on the three eggs which constituted her second clutch, we had been experimenting with Professor Herrick's new method of bird study, taking Cedarbirds for our first subject. We had cut from a maple the twig on which a nest containing young was placed, and had fixed it on some upright posts about four feet from the ground, and very near the piazza. For ten days the progress of the young Cedarbirds, and the actions of the parents, the feeding by regurgitation, and the cleaning of the nest, had been a source of hourly interest to a large number of observers, and we had at last the satisfaction of standing by when all four young ones were encouraged by their parents into the shelter of the neighboring trees.

On August 6, the three young Chebecs were about a week old; they were well covered with down and their feather tubes were beginning to burst. I ventured, therefore, to repeat with them the experiment which had been so successful in the case of the Cedarbirds. As the limbs on which the nest rested were too large to cut down, I spliced another crotch to a long pole and after fixing the nest into the new crotch, leaned the pole against the branches of the tree, so that the nest with the young came just below the old site. In a few moments, the old bird was feeding the young in the new site. Then, by cutting off successive pieces from the lower end of the pole, I lowered the nest to

the desired height. I am thus explicit because, in this case, I did what Professor Herrick did not do, i. e., alter the immediate surroundings of the nest, and this alteration may have affected the result. All the morning an interested group watched the little Chebec, and marveled at her activity. For it soon became evident that the female alone was bringing up the second brood. The male may have strayed off with the first brood; at any rate only one bird busied herself with these three young ones. She was not able to economize time as the Cedarbirds had done, by bringing a square meal for all at one trip; she brought each separate insect as fast as she caught it. Often she was back again within half a minute, and in one period of fifteen minutes, she made twelve trips to the nest.

When night came, I was disturbed to find that the little bird was apparently not intending to brood the young. Even when it was quite dark, I found that they were not covered by her. Whether this was because of the new crotch, I do not know. I am now convinced that the proper way to meet such a contingency would be to return the nest at once to the old site. This I have since done in cases where the old birds either could not find the new site or did not choose to come to it. That evening, however, thinking that the old bird knew what she was about, I left the nest in its new site. In the night a violent thunderstorm came up, and before I could get the birds into shelter one had already died. I kept the others warm, and the next morning fed them with flies, learning incidentally some interesting facts about the available stimuli for making young birds open their mouths. When the storm passed, I replaced the nest and had the satisfaction of seeing the old bird return to feed the survivors. If the nest had been a mile from my house, as it easily might have been, I could not have reached it in time to save any of the birds.

I have been led to give the above details, partly because several of the circumstances connected with the rearing of this second brood are interesting. My particular object in telling the story, however, is to warn any one who thinks of trying Professor Herrick's method against a danger, of which he, I believe, does not speak. The danger to young birds from violent thunderstorms must, under any circumstances, be great, but the birds should certainly have the benefit of as much shelter as possible, and the old site will, from the nature of things, be more leafy than the new one which we choose. I have, in another instance, nailed a Vireo's nest into the tree again, when a storm threatened, and I suggest that this plan should be promptly resorted to whenever the old birds are slow to take to the new site. Professor Herrick's warning against keeping the old birds too long from the nest gains strength when we remember how often the young Chebecs were fed. A long fast probably lessens their power of resistance more than that of other species.

The advantages which Professor Herrick's method of bird study offers are obvious. It would have been almost impossible for a class of students to become as intimate with Cedarbirds as we became by any other method; every characteristic action, every posture, almost, is impressed on our minds. My experience with the Chebec, however, forces me to the conviction that the method of controlling the nesting-site, of moving it, in other words, for the purpose of study and of photography from the position which the bird has selected, is one which may, in careless hands, be productive of a great amount of injury. I believe that only a trained naturalist should use the method. Even he will probably have to buy a little costly experience, but if he is animated by genuine love for the individual bird, he will learn to guard against the dangers from heat, rain, and desertion. It is emphatically not a method to be recommended to the general public.



A MUCH TRAVELED HERON

An immature European Heron (*Ardea cinerea*) which flew aboard the steamship Glencartney about 205 miles southwest of Cape Cormorin, at the southern extremity of India, and was brought to the New York Zoölogical Society. Photographed by C. William Beebe

For Teachers and Students

Birds and Seasons

SIXTH SERIES

WITH this issue of BIRD-LORE the series of papers on 'Birds and Seasons' is concluded. That it has been of assistance to field students their numerous and cordial expressions of appreciation assure us. The idea of a definite plan of study has also found favor and the editor is encouraged to follow these papers on 'Birds and Seasons' by a series of articles on the families of Passerine birds. The chief aim of these articles, which will be fully illustrated, will be to aid the student in identifying birds in nature, but information will be given for those who desire to know at least the main points of structure on which families are based.

F. M. C.

OCTOBER AND NOVEMBER BIRD-LIFE NEAR BOSTON

BY RALPH HOFFMANN

The first of October is the height of the fall migration. The woods and dry country lanes are now full of restless bands, which seem to any one who has become familiar with the order of arrival which birds keep in spring, to be made up of strange companions. The Yellow Palm and the Blackpoll Warblers, birds which in May could only accidentally overlap, are now encountered day after day together. In the grassy swamps, Sparrows, chiefly Song and Swamp, are swarming by the hundreds. A trained eye may detect among them on some fortunate day the more elegant form and markings of a Lincoln's Finch.

About the twentieth of the month the last regular migrants arrive, the Fox Sparrow, the Tree Sparrow and the Shrike. About the same time all but the hardiest of the summer birds, and the earlier migrants take their departure. The Sparrows in the weedy fields, the Yellow-rumps in the now leafless thickets, a White-throat or a few lingering Blackbirds, how one treasures the sight of these familiar birds! We follow the last Bluebird as we did the first, knowing that a weary interval may divide us from another sight of his warm blue. Even in November, the warm sunshine occasionally tempts these birds to linger on till some severe storm covers the earth with the first snow, and we come down to winter fare.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE for Dec., 1900, p. 183.

Departures of Summer Residents in October and November.—October 10, Maryland Yellow-throat, Pine Warbler, Black-throated Green Warbler, Indigo bird, House Wren; October 15, Carolina Rail, Virginia Rail; October 20, Chewink, Brown Thrasher, Catbird, Vesper Sparrow, Phœbe, Meadow Lark; October 31, Bluebird; November 5, Chipping Sparrow, Field Sparrow, Savanna Sparrow, Cowbird, Bronzed Grackle; November 10, Cedarbird; November 15, Song Sparrow, Swamp Sparrow; November 20, Sharp-shinned Hawk, Cooper's Hawk, Marsh Hawk, Kingfisher.

Arrivals and Departures of Migrants in October and November.—October 1-20, White-crowned Sparrow; October 1-November 5, Hermit Thrush; October 21-December 1, Fox Sparrow; October 21, Tree Sparrow, Northern Shrike; October-November, Pine Finch, Ipswich Sparrow; November, Snow Bunting, Red Crossbills, White-winged Crossbill,* Pine Grosbeak,* Redpoll Linnet.*

*Very irregular and commonly absent.

OCTOBER AND NOVEMBER BIRD-LIFE NEAR NEW YORK CITY

BY FRANK M. CHAPMAN

October is a month of falling leaves and departing birds. Some time during the month the first "hard" frost may be expected, and doubtless during the entire year no other one event exercises so marked an influence on the character of our bird-life. In a night, as it were, the season passes from ripe maturity to old age, and the limp, sodden foliage of the less hardy plants is no less evident to the flower lover than is the absence of previously abundant birds to the ornithologist. The reason is obvious. The low temperature has not only robbed most insectivorous birds of their food but has deprived the arboreal species of the protection of leaf-hung branches.

This marks the end of the Warbler migration, and for the rest of the season Sparrows will be the common birds, frequenting weed and stubble fields. The length of their stay is largely dependent on the character of the weather, many species, as we have seen, lingering, under favorable conditions, until December.

October shows a further development of the second song period. Song, White-throated and Fox Sparrows, Phœbes, and Ruby-crowned Kinglets may always be heard singing fairly full-voiced performances during the month.

One may now also look for the diurnal migrations of Hawks and Crows, which, here, fly from northeast to southwest, and, a little later, the gathering of Grackles in enormous flocks, is characteristic of the season.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE for Dec., 1900, p. 184.

Summer Residents Leaving for the South.—October 1-10, Black-crowned Night

Heron, Yellow-billed Cuckoo, Black-billed Cuckoo, Chimney Swift, Least Flycatcher, Bobolink, Grasshopper Sparrow, Indigo Bunting, Scarlet Tanager, Barn Swallow, Cliff Swallow, Bank Swallow, White-eyed Vireo, Black-and-White Warbler, Redstart, Ovenbird, Wood Thrush; 10-20, Spotted Sandpiper, Whippoorwill, Nighthawk, Red-eyed Vireo, Maryland Yellow-throat, Long-billed Marsh Wren, Short-billed Marsh Wren, House Wren, Brown Thrasher, Catbird; 20-31, Phoebe, Towhee, Tree Swallow; November 1-, Wood Duck, Great Blue Heron, American Bittern, Woodcock, Mourning Dove, Kingfisher, Red-winged Blackbird, Purple Grackle, Cowbird, Vesper Sparrow, Field Sparrow, Chipping Sparrow, Swamp Sparrow.

Migrants Arriving from the North.—October 1-15, Loon, Pintail, Mallard, Canada Goose, Bronzed Grackle, Rusty Blackbird, American Pipit, Hermit Thrush, Fox Sparrow; 15-31, Horned Lark, Pine Finch, Tree Sparrow, Snowflake, Redpoll, Northern Shrike.

OCTOBER AND NOVEMBER BIRD-LIFE NEAR PHILADELPHIA

BY WITMER STONE

October and November cover the close of the autumnal migration and the return of bird-life to the period of winter quiescence. In the early days of October we frequently see a large number of the species which characterize the migratory waves of the preceding month, but these are for the most part stragglers, and it is the more hardy species which are most conspicuous in the crisp days of autumn, particularly the great flocks of White-throated Sparrows, Purple Finches, Goldfinches, Blackbirds and Robins; and their frequent call-notes and chirpings form quite a contrast to the languid silent days of late summer.

By November 1 bird-life is reduced almost to its winter level and the few migrants that linger with us are those which may be looked for even in midwinter in favorable seasons.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE for Dec., 1900, p. 185.

Departure of Summer Residents.—October 1-15, Green Heron, Yellow-billed Cuckoo, Black-billed Cuckoo, Whippoorwill, Nighthawk, Indigobird, Rose-breasted Grosbeak, Yellow-winged Sparrow, Scarlet Tanager, White-eyed Vireo, Red-eyed Vireo, Black-and-White Warbler, Redstart, Ovenbird, Wood Thrush; October 16-31, Phoebe, Towhee, Maryland Yellow-throat, Tree Swallow, Marsh Wren, House Wren, Thrasher, Catbird; November 1-15, Field Sparrow,* Chipping Sparrow, Vesper Sparrow, Cowbird, Kingfisher, Purple Grackle, Red-winged Blackbird.

*Usually.

OCTOBER AND NOVEMBER BIRD-LIFE NEAR OBERLIN, OHIO

BY LYNDY JONES

However capricious and inclement September weather may be, October may be counted upon to furnish a fair share of bright, warm days. The

month may open frosty for the purpose of making excuse to close like August, or it may open truly summer-like and close in a flurry of snow. There are not seldom a few days of cold rainy weather near the tenth followed by as fine an Indian summer as heart could desire. Whatever the weather may be, some birds are certain to move southward during the first ten days, and others are as certain to leave us during the last ten days, but the exact time in either case cannot be foretold, because the weather cannot be foretold. During this month, weather is a prime factor in the movements of the birds.

November is pretty certain to bring us the first snow of any consequence. It rarely comes before the last week, or if it does come earlier the month is pretty certain to close in brown apparel because of the rains which follow. We may have snow during the first week, to be sure, but if so it soon disappears, and is a forecast of a warm December. The weather is seldom severe, the temperature rarely falling as low as 20°. Of course the birds are greatly influenced by November weather. The snow storm of the last week drives nearly all of the strictly migratory species south and greatly reduces the numbers of many that remain during the winter, but it is rarely severe enough to bring us many of the more hardy northern birds which spend January with us.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE for Dec., 1900, p. 186.

Arrivals in October.—1-15, Junco, Purple Finch, Rusty Blackbird, Brown Creeper, Mallard; 15-30, Tree Sparrow, Fox Sparrow, American Pipit, Hermit Thrush, Green-winged Teal, Horned Grebe, Loon.

Departures in October.—1-10, Wood Duck, American Coot, American Woodcock, Phoebe, Swamp Sparrow, White-crowned Sparrow, Chipping Sparrow, Palm Warbler, Catbird; 10-20, Green-winged Teal, Green Heron, Sora, Chimney Swift, Greater Yellow-legs, Yellow-legs, Cowbird, Field Sparrow, Towhee; 20-31, Turkey Vulture, Belted Kingfisher (bulk), Bronzed Grackle (bulk), Ruby-crowned Kinglet, Hermit Thrush, Robin (bulk), Bluebird (bulk).

Arrivals in November.—1-10, Northern Shrike, American Scaup Duck, Bufflehead, Hooded Merganser, Ruddy Duck.

Departures in November.—1-10, American Scaup Duck, Bufflehead, Vesper Sparrow, White-throated Sparrow, Myrtle Warbler, Red-breasted Nuthatch; 10-20, Killdeer, Pied-billed Grebe, Fox Sparrow, American Pipit; 20-30, Mallard, Olive-backed Thrush, Junco (bulk), Rusty Blackbird (bulk), Ruddy Duck, Song Sparrow (bulk), Mourning Dove (bulk), Meadowlark (bulk).

AUGUST AND SEPTEMBER BIRD-LIFE AT GLEN ELLYN (NEAR CHICAGO), ILLINOIS*

BY BENJAMIN T. GAULT

The outward manifestations of an August day, with its dry and parched fields, its cicada sounds and worm-eaten foliage—the dog-days

*Owing to the editor's absence this article was omitted from the August issue of BIRD-LORE.

of old, recurring with each successive year—contribute little in their way that is enthusing to one's ardor for a more or less protracted study of the bird-life then surrounding us.

It is in the main a period of disappointments. The molting season, but fairly begun the preceding July, is carried more into completion during this month, with the result that the first two weeks of August find many of our birds in a sadly dilapidated condition; though it is not unusual, even then, to see the Red-eyed Vireo, in rather scant attire, caring for a brood of its own, having been debarred from this obligation, through the several weary weeks just passed, by acting in a similar capacity for that bulky parasite the Cowbird, presenting in the meantime a most pathetic picture.

The last two weeks of this month are much more musical than the first, which are mainly devoid of interest aside from the early arrival of several of our warblers, who pass through almost unheralded at this particular time of the year.

September gives us a taste of May over again; yet, after all, it is like a cake that has been largely deprived of its frosting and sugared plums; though, on the whole, very palatable as it is wholesome.

We miss, however, the sweet vocal strains, and are comforted chiefly by the sight of many birds, which, alternating with the weather, seem to come by fits and starts. The woods may fairly swarm with them from bramble to tree-top tomorrow and be comparatively tenantless the day following. A rapid change in climatic conditions, a fall in temperature, is usually followed shortly afterward by its attendant bird-wave.

The first two weeks of September should be very busy ones for the energetic student of birds, and clever indeed is he who can accurately identify all that he sees. Many of our transient visitors come to us then in a poorly developed, if not greatly modified, dress, and we must rely largely upon certain ineffaceable markings in order to correctly name them. It, too, is the month of Warblers and the smaller Thrushes, which finally gives way, as the season advances, to that of the Sparrow hosts.

BIRDS OF THE SEASON

Late summer and early fall transients and winter visitants, near Glen Ellyn, Illinois, from data collected during the past eight years, earliest dates of arrival being given:

(For permanent winter visitant and summer resident species see BIRD-LORE, Dec. 1900, p. 187, and June, 1901, p. 104.)

July 4, Black Tern; July 16, Solitary Sandpiper; July 28, Orange-crowned Warbler; July 29, Tennessee Warbler; July 30, Yellow-legs; Aug. 3, Great Blue Heron; Aug. 4, Least Sandpiper; Aug. 9, Broad-winged Hawk; Aug. 11, Olive-sided Flycatcher, Blue-headed Vireo and Black-and-White Warbler; Aug. 12, Pectoral Sandpiper, Magnolia and Blackburnian Warblers; Aug. 13, Bay-breasted Warbler; Aug. 14, Connecticut Warbler; Aug. 15, Canadian Warbler; Aug. 16, Golden-winged and

Wilson's Warblers, Red-breasted Nuthatch (?) and Olive-backed Thrush; Aug. 17, Mourning Warbler; Aug. 20, Nashville Warbler; Aug. 21, Philadelphia Vireo; Aug. 22, Black-throated Green Warbler; Aug. 23, Blackpoll Warbler; Aug. 25, Purple Finch, Parula and Black-throated Blue Warblers and Water-Thrush; Aug. 26, Wilson's Willow and Gray-cheeked Thrushes; Aug. 30, Slate-colored Junco;* Sept. 2, Swamp Sparrow; Sept. 3, Yellow-bellied Flycatcher; Sept. 4, Blue-winged Teal, Sparrow-Hawk (latter recently added to summer resident list) and Palm Warbler; Sept. 6, Horned Grebe (?); Sept. 7, American Coot and Osprey; Sept. 8, Le Conte's Sparrow and Cape May Warbler; Sept. 9, Winter Wren and Ruby-crowned Kinglet;** Sept. 10, American Golden Plover; Sept. 11, Lincoln's Sparrow; Sept. 12, Rusty Blackbird;** Sept. 13, White-throated Sparrow; Sept. 14, Sapsucker and Hermit Thrush; Sept. 15, Brown Creeper;** Sept. 17, Sharp-shinned and Pigeon Hawks, Grinnell's (?) Water Thrush; Sept. 18, Wilson's Snipe and Pine Siskin (?); Sept. 19, Golden-crowned Kinglet; Sept. 20, Greater Yellow-legs; Sept. 22, Fox Sparrow; Sept. 24, Black-bellied Plover and Lapland Longspur (?); * Sept. 25, Mallard, Green-winged Teal and Myrtle Warbler; Sept. 30, American Pipit.

Latest dates of departure, for August and September, of transient and summer-resident species, from data collected near Glen Ellyn, Illinois, during the past eight years:

(For migrant species during February and March, and April and May, see February and April Nos. of BIRD-LORE, pp. 27 and 66, respectively.)

Aug. 13, Chipping Sparrow;† Aug. 16, Yellow-breasted Chat;† Aug. 17, Mourning Warbler; Aug. 19, Least Sandpiper and Cerulean Warbler; Aug. 20, Blue-gray Gnatcatcher; Aug. 27, Acadian Flycatcher; Aug. 30, Green Heron; Sept. 1, Barn Swallow, White-rumped Shrike, and Blue-winged Yellow Warbler; Sept. 3, Yellow-bellied Flycatcher, Bank Swallow and Wilson's Thrush; Sept. 4, Baltimore Oriole; Sept. 5, Black Tern and Dickcissel; Sept. 6, Horned Grebe (?), Great Blue Heron, Kingbird and Yellow Warbler; Sept. 7, Osprey; Sept. 8, Tree Swallow and Cape May Warbler; Sept. 10, Cowbird and Warbling Vireo; Sept. 11, Bartramian Sandpiper; Sept. 12, Sparrow Hawk; Sept. 13, Grasshopper Sparrow; Sept. 15, Olive-sided Flycatcher (?); Sept. 16, King Rail and Eave Swallow; Sept. 17, Grinnell's (?) Water Thrush and Willow Thrush; Sept. 18, American Woodcock, Yellow-legs and Crested Flycatcher; Sept. 19, Traill's Flycatcher; Sept. 20, Greater Yellow-legs, Scarlet Tanager and Yellow-throated Vireo; Sept. 21, Wilson's Warbler; Sept. 22, Ruby-throated Hummingbird, Indigo Bird, Blackburnian, Connecticut and Canadian Warblers and Wood Thrush; Sept. 23, Wood Pewee and Martin (?); Sept. 24, Black-bellied Plover and Least Flycatcher; Sept. 24, Pectoral and Spotted Sandpipers; Cedarbird** and Golden-winged Warbler; Sept. 26, Henslow's Sparrow and Chestnut-sided Warbler; Sept. 27, Blue-winged Teal; Rose-breasted Grosbeak; Philadelphia Vireo, Black-and-White and Blackpoll Warblers; Sept. 28, Sharp-shinned Hawk; Sept. 29, Yellow-billed Cuckoo and Chimney Swift; Sept. 30, Ovenbird.

* Regular winter visitant.

** Irregular winter visitant.

† Doubtless occurred later.

OCTOBER AND NOVEMBER BIRD-LIFE AT GLEN ELLYN (NEAR CHICAGO), ILLINOIS

BY BENJAMIN T. GAULT

The opening days of October are perhaps easily characterized by the marked disappearance of many of our strictly insectivorous birds. A few may linger still, or until some time after the first fall frosts have set in, yet it is equally apparent to us then that they fail to lend much character

to our bird-life, or such as the seed eaters, or Sparrows, are now doing, during these and the succeeding Indian summer days, so shortly to follow.

From a few, at first, the Tree Sparrows gradually become more numerous, and, as the bracing days of late October finally give way to the sharper nights and mornings of cooler November, it is found they are not lacking in suitable places. Yet, as a species, they cannot be regarded as common until the wintry days of December have actually come to stay; though their exact status in this one particular does seem to vary with the seasons.

The first week in October, with us, usually finds the Juncos and Peabodies plentiful, and associated with them is a fair sprinkling of Fox Sparrows, the whole constituting a jolly lot.

Our mixed hazel and blackberry, cornel and wild crab thickets are then the much-frequented resorts of the Sparrow kind, and if one finds music in the constant scratching among the rustling leaves and the almost incessant clatter of vocal sounds emanating from such surroundings he should not fail to visit them at this most opportune time of the year.

The Ambrosia, or ragweed, thickets, too, also afford them capital retreats, as one is almost sure of finding there a mixed assemblage of the species just mentioned.

There are years when the Pine Siskins first visit us in one immense flock, with little bands from the main body scouring the country here and there; and it is then that the heavily seed-laden tops of the ragweed offer them the greatest of attractions.

A few notes pertaining to the fields and the foraging habits of the Rough-legged Hawks might be as readily appended here, but, with these, we doubtless are rather convinced by this time that our seasonal cycle of bird-life experiences has practically and happily approached its completion.

BIRDS OF THE SEASON

For permanent residents, see BIRD-LORE for Dec., 1900, p. 187.

Late fall and early winter arrivals at Glen Ellyn, showing earliest recorded dates:

October 2, Nelson's and White-crowned Sparrows; Oct. 4, Tree Sparrow;* Oct. 12, Ring-necked Duck and American Rough-legged Hawk;* Oct. 17, Canada Goose;** Oct. 23, Lesser Scaup Duck; Oct. 24, Northern Shrike;* Oct. 31, American Crossbill; Nov. 6, Shoveller Duck and Redpoll Linnet;** Nov. 19, Tufted Titmouse; Dec. 11, Short-eared Owl.*‡

Late fall and early winter departures at Glen Ellyn, showing latest recorded dates, from data collected during the past eight years:

October 1, Black-crowned Night Heron, Parula Warbler and Water Thrush; Oct. 2, Nelson's Sparrow and Maryland Yellow-throat; Oct. 4, American Coot, Broad-winged Hawk, Field Sparrow and Bay-breasted Warbler; Oct. 5, Red-eyed Vireo and Amer-

* Regular winter visitant.

** Irregular winter visitant.

‡ Doubtless occurred earlier.

ican Redstart; Oct. 6, Solitary Sandpiper, LeConte's Sparrow, Phoebe, Catbird, Brown Thrasher and Alice's Thrush; Oct. 7, Orange-crowned Warbler; Oct. 9, Marsh Hawk, Bobolink, Lincoln's Sparrow, Solitary Vireo, House Wren, Nashville (?), Tennessee and Magnolia Warblers; Oct. 10, Long-billed Marsh Wren and Black-throated Blue Warbler; Oct. 12, Sapsucker and Black-throated Green Warbler; Oct. 14, Nighthawk; Oct. 16, Pigeon Hawk and Hermit Thrush; Oct. 17, Carolina Rail and Short-billed Marsh Wren; Oct. 18, Golden Plover, American Pipit and Palm Warbler; Oct. 19, Green-winged Teal and American Bittern; Oct. 20, Savanna Sparrow; Oct. 21, Mourning Dove, Black-billed Cuckoo and White-crowned Sparrow; Oct. 22, Killdeer Plover; Oct. 24, Swamp Sparrow and Olive-backed Thrush; Oct. 25, Grass Finch; Oct. 27, Ruby-crowned Kinglet** and Myrtle Warbler; Oct. 31, Brown Creeper** and Red-breasted Nuthatch; Nov. 1, Chewink; Nov. 2, Purple Finch and Song Sparrow; Nov. 4, Pied-billed Grebe, Lesser Scaup Duck and Wilson's Snipe; Nov. 6, Shoveller Duck and Red-headed Woodpecker;** Nov. 7, White-throated and Fox Sparrows and Winter Wren; Nov. 13, American Crossbill; Nov. 15, Meadowlark,** Rusty Blackbird,** Bronzed Grackle and Redpoll Linnet;** Nov. 18, Bluebird; Nov. 19, Belted Kingfisher, Red-winged Blackbird, Tufted Titmouse and American Robin,** Nov. 26, Mallard; Nov. 29, Ring-necked Duck and Pine Siskin; Dec. 11, Golden-crowned Kinglet,** Dec. 12, Canada Goose;** Dec. 17, Flicker.**

** Irregular winter visitant. '

SUGGESTIONS FOR THE SEASON'S STUDY

Migration.—Note the relation between temperature and the dates of departure of birds for the south. What summer residents remain until November? Are the individuals of these species probably those that were with us during the summer or birds from farther north? Compare the birds of November with those of March. What is the reason for the similarity in the bird-life of the two months? When possible, note the age, whether immature or adult, of the migrants observed. What evidences of migration by day are now observed? Do any birds regularly resort to winter roosts in your vicinity? When are these roosts formed?

Food.—Note the change in the food of many species at this season. What usually insectivorous birds now feed upon berries? Observe the relation between and the nature of a migrant bird's food and the date of its departure. Note especially whether any birds store food. Does it follow that the same individual which stores food will remain to devour it later in the year?

Song.—What species sing at this season? Are the individuals heard singing believed to be adults or birds reared the preceding summer? What birds have call-notes largely restricted to this season? What are the probable reasons for such restriction?

SUGGESTIONS FOR THE SEASON'S READING

Thoreau: 'Autumn,' 'Autumnal Tints' in 'Excursions.' Burroughs: 'Autumn Tides' and 'An October Abroad' in 'Winter Sunshine.' Torrey: 'A November Chronicle' in 'A Rambler's Lease.' Flagg: 'October' and 'November' in 'A Year With the Birds.' Bolles: 'At the North of Bearcamp Water.' Wright: 'The Loom of Autumn' in 'The Friendship of Nature.' Crockett: 'October' and 'November' in 'A Yearbook of Kentucky Woods and Fields.' Ingersoll: 'Nature's Calendar.' Parkhurst: 'The Birds' Calendar.'



What Bird Is This?

Field Description.—Length, 5.50 in. Crown dark brown, a grayish line through its center, a buffy streak over the eye; back streaked with black, whitish and brownish; tail-feathers pointed; throat whitish; breast and sides buffy; abdomen white.

NOTE.—Each number of BIRD-LORE will contain a photograph, from specimens in the American Museum of Natural History, of some widely-distributed, but, in the eastern United States, at least, comparatively little-known bird, the name of which will be withheld until the succeeding number of the magazine, it being believed that this method of arousing the student's curiosity will result in impressing the bird's characters on his mind far more strongly than if its name were given with its picture.

The species figured in August is the female Black-throated Blue Warbler, a fall specimen with the white spot at the base of the primaries not visible beyond the coverts. Few Warbler plumages are more difficult to identify.

The June Bird Census

While we have received a number of responses to the suggestion of a June bird census, very few of the lists sent are based upon the detailed observation required to make them of value in this connection. A mere enumeration of the species seen even when accompanied by the statements of "Common," "Abundant," etc., does not aid us in learning with comparative exactness the number of individual birds occupying a given area.

Only those who have tried to make a bird census are aware of the time, care, and patience it of necessity requires. It is not surprising, therefore, that so few of the returns are available for publication.—ED.

A JUNE BIRD CENSUS AT NORTH FREEDOM, WIS.

BY ALICK WETMORE AND JAMES SEELEY

The country taken consisted of corn and oat fields, sloping meadows, heavily wooded bottoms, thick bushy tracts, a wild plum orchard and a marsh. Time, June 3 to June 30:

Green Heron, 1; Virginia Rail, 1; Sora, 1; Spotted Sandpiper, 5; Bob-white, 10; Mourning Dove, 12; Cooper's Hawk, 2; Red-shouldered Hawk, 1; Pigeon Hawk, 1; American Sparrow Hawk, 5; Yellow-billed Cuckoo, 2; Belted Kingfisher, 5; Downy Woodpecker, 3; Yellow-Bellied Woodpecker, 1; Red-headed Woodpecker, 5; Flicker, 8; Night-hawk, 2; Chimney Swift, 5; Ruby-throated Hummingbird, 1; Kingbird, 4; Phoebe, 1; Wood Pewee, 3; Least Flycatcher, 1; Prairie Horned Lark, 3; Bluejay, 3; Crow, 1; Bobolink, 8; Cowbird, 7; Red-winged Blackbird, 23; Meadowlark, 10; Baltimore Oriole, 3; House Sparrow, 3; American Goldfinch, 7; Vesper Sparrow, 6; Chipping Sparrow, 2; Field Sparrow, 1; Song Sparrow, 21; Rose-breasted Grosbeak, 4; Indigo Bunting, 4; Dickcissel, 4; Scarlet Tanager, 2; Purple Martin, 2; Cliff Swallow, 3; Barn Swallow, 4; Bank Swallow, 10; Cedar Waxwing, 5; Red-eyed Vireo, 5; Warbling Vireo, 5; Yellow-throated Vireo, 1; Yellow Warbler, 5; Maryland Yellowthroat, 2; American Redstart, 2; Catbird, 9; Brown Thrasher, 2; White-breasted Nuthatch, 3; Chickadee, 7; American Robin, 12; Bluebird, 2. Total, 58 species, 268 individuals.

A JUNE BIRD CENSUS AT HUNTINGTON, LONG ISLAND

BY CHARLOTTE E. LEE

The area selected is bounded on one side by an elm-shaded village street, lined with cottages having lawns and gardens, back of which lie orchards and hay fields. The street ascends a hill whose opposite slope is partly covered with a growth of cedar, locust, oak and chestnut trees, and at the foot of which lies a group of small ponds with banks heavily shaded with willow, alder, elder, and other bushes.

Bob-white, 1; Yellow or Black-billed Cuckoo, 1; Downy Woodpecker, 2; Flicker, 3; Swift, 12-15; Ruby-throated Hummingbird, 1; Kingbird, 4; Great Crested Flycatcher, 2; Wood Pewee, 4; Chebec, 2; Blue Jay, 2; Crow, 1; Cowbird, 3; Meadowlark, 2; Orchard Oriole, 2; Baltimore Oriole, 6 adult, 1 young; Purple Finch, 2; English Sparrow, 17; Goldfinch (American), 10; Grasshopper Sparrow, 4; Chipping Sparrow, 15; Field Sparrow, 5; Song Sparrow, 17; Chewink, 2; Scarlet Tanager, 1; Purple Martin, 6; Cedarbird, 6; Red-eyed Vireo, 5; Yellow-throated Vireo, 1; White-eyed Vireo, 2 and 1 young in nest; Black and White Warbler, 4; Yellow Warbler, 6; Prairie Warbler, 3; Ovenbird, 2; Louisiana Waterthrush, 2; Maryland Yellowthroat, 5; American Redstart, 6; Catbird, 10; Brown Thrasher, 2; House Wren, 3; Wood Thrush, 9; Robin, 25. Total, 42 species, about 223 individuals.

For Young Observers

A Bittern at Close Range

BY A. V. KIDDER (Aged 15)

ON May 16, 1901, I was walking alone by the edge of a large marsh near the Waverley Oaks, in Belmont, Mass. It was about 3 o'clock on a hot sunny afternoon, and I was therefore much surprised to hear the pumping of a Bittern from the long grass. I had made it my rule always to look for a Bittern that I heard pumping, but had never yet been lucky enough to see the operation. I looked carefully over the broad expanse of marsh grass and water, and soon struck something that looked suspicious. From behind a small clump of dead bullrushes there protruded a brown object, that, even with the glasses, could scarcely be proved animate. All my doubt of its identity was removed when the top of the stick suddenly bent down, was jerked up and pulled down again, while the well-known guttural, bubbling grunt came to my ears. The neck immediately became stiff and straight again, and the bird stood motionless for several minutes.

This Bittern only pumped from three to four times running and then stood quietly for two to three minutes before repeating his performance. I have never heard a Bittern pump more than eight consecutive times, nor less than twice.

The bird was about a hundred yards distant, with only his neck and head in sight. His neck was protruding straight from the grass and his head pointed upward and outward. The process of pumping was as follows: When ready, he lowered his beak, so that it pointed about parallel to the grass. After a few preliminary nods his head jerked violently down and his throat swelled and puffed as if a large ball were being brought up from the stomach, then his head was thrown up to a perpendicular, and whipped down a trifle lower than in the first nods. These movements made up one "pump" consisting of three syllables that sounded to me like "glump-te-glough." The next pump is started without the preparatory nods. The actions are so lightning-like that it is impossible to say in what part of the gyrations of his head the separate notes come. He was too far distant for me to hear the snapping of the bill heard by Mr. Bolles, less than two miles from the same place. One note of three syllables took a little over one second, and during the interval, which was longer than in the night performance, he stood gazing steadfastly toward the sky. I suppose the dipping of his bill, like that of a bird drinking, before beginning the song, gave rise to the very natural idea that water was used in the process.

Notes from Field and Study

A Talking Rose-breasted Grosbeak

Early last summer while standing on my back steps, I heard a cheerful voice say, "You're a pretty bird. Where are you?" I supposed it to be the voice of a Parrot, but wondered how any Parrot could talk loud enough to be heard at that distance, for the houses on the street back of us are quite a way off.

Almost before I had done laughing, the voice came again, clear, musical, and strong—"You're a pretty bird. Where are you?"

For several days I endured the suspense of waiting for time to investigate. Then I chased him up. There he was in the top of a walnut tree, his gorgeous attire telling me immediately that he was a Rose-breasted Grosbeak.

At the end of a week he varied his compliment to, "Pretty, pretty bird, where are you? Where are you?" With a kind of impatient jerk on the last "you."

He and his mate stayed near us all last summer, and though I heard him talk a hundred times, yet he always brought a feeling of gladness and a laugh.

Our friend has come back again this spring. About May 1, I heard the same endearing compliment as before.

Several of my friends whom I have told about him have asked, "Does he say the words plainly? Do you mean that he really talks?" My reply is, "He says them just as plainly as a bird ever says anything, so plainly, that even now I laugh whenever I hear him."

He is not very easily frightened and sometimes talks quite a while when I am standing under the tree where he is.—
EMILY B. PELLET, *Worcester, Mass.*

Swallow Maneuvers

On October 3, 1899, my attention was called to a huge flock of Tree Swallows about a quarter of a mile from my home.

These birds are abundant here from July to October, but on this occasion at least 2,000—estimating from photographs and from the counting of the live birds—were collected on the telegraph wires and in the adjoining fields, and not a single specimen of any other species could be found in the flock.

On the wires were hundreds at a time, crowded together between three poles; they seemed to have lost their usual fear of man, remaining even when carriages went under them, and not always starting up when the wires were struck by a stone—a temptation to throw which the passing small boys found it impossible to resist.

Beside the road is a small brook with two or three exposed pools, and here was a great oval whirl of birds, all going in the same direction, each in passing dipping for a drink, then rising to re-take its place in the line. Now and then some returned to the wires or others joined the drinkers, but the numbers were so great that a collision seemed unavoidable.

A large part of the flock had settled in a pasture some distance away, in so close a group that they made a spot of blue on the short grass. Crossing over to these I found them quietly enjoying the sunlight, and as I approached from the southwest all had their backs toward me, showing to perfection the beautiful steel-blue of the feathers. Most of the time they were still, though now and then one undertook to walk a few inches, if, indeed, such a ridiculous hobble could be called a walk. But forty feet was near enough for a person—then those nearest me rose and passing over the others, alighted in front of them, and so they moved regularly on before me.

Some of this portion of the flock were on a wire fence near at hand, a very small proportion, though over 100 were on a single wire between five posts, and these were so fearless that when the last one flew I was but two steps away.

Four or five times during an hour and a half the birds on the telegraph wires rose in a body, with those drinking at the brook, while the flock from the pasture hurriedly crossed the intervening fields to join them. For a moment the very air seemed full of Swallows, then rising higher, they separated into smaller flocks, turning back and forth, meeting again, describing curious figures as smoothly and easily as if going through a long-practiced drill. After a few minutes, they either returned, a few at a time, to their former perches, or gradually scattered over the fields and woods and in a little while came streaming back, a long river of Swallows, to alight once more.

As the morning advanced their numbers gradually diminished, and at 3 P. M. about thirty remained. For three or four days after that these Swallows were present in great numbers, continuing their drill, after which I noticed no more than usual.—ISABELLA MCC. LEMMON, *Englewood, N. J.*

An Aërial Battle

On September 24, 1898, I witnessed a most vigorous and spirited fight between a Sparrow Hawk and a female Sharp-shinned Hawk. Each seemed equally the aggressor and fought after its own peculiar method of hunting, the Sparrow Hawk always endeavoring to rise high above the other and then dash down falcon-like on the back of its antagonist, a manœuvre which the other usually forestalled by turning on its back and striking upwards viciously, though once or twice I fancied that the Sparrow Hawk struck her pretty severely before she was able to turn.

The Sharp-shinned Hawk attacked with a horizontal flight, sometimes with a side movement, but oftener straight ahead, and, to my surprise, appeared to have the advantage when flying against the wind, in spite of its opponent's more compact build and stiffer wing feathers. The two fought back and forth over the same ground for ten minutes or more, each endeavoring to gain the advantage by keeping to the windward, but continually beaten back by the gale. The Sparrow Hawk fought in

silence, while the other uttered sharp, petulant shrieks from time to time.—W. E. CRAM, *Hampton Falls, N. H.*

Note on the Warbling Vireo

An early morning visit to Rock Island, in the Mississippi river at Moline, Illinois, for the purpose of becoming more familiar with the Warbling Vireo—the bird, its song, its nest, its habits—revealed a very pretty bit of bird-ways.

Seated on the ground, in a convenient place for watching the Vireo, which was on the nest, we were soon attracted by a Vireo's song. Search for the singer failed to find it, until we noted that the bird on the nest seemed to be singing. Then, as we watched, over and over again the bird was seen to lift up its head and pour out the long, rich warble—a most delicious sight and sound.

Are such ways usual amongst birds, or did we chance to see and hear an unusual thing?—AMANDA ELLIOTT, *Moline, Illinois.*

The Bird Rock Group

(See *Frontispiece*)

One of the objects of the writer's trip to Bird Rock in July, 1898, was to secure material to be used in the representation of the interesting phase of bird-life the Rock so well typifies, in the American Museum of Natural History. This object has now been happily accomplished through the skill and talents of Mr. H. C. Denslow, of the Museum's taxidermic staff, and the Bird Rock group is considered to be one of the most successful, as well as most ambitious attempts, to reproduce the haunts of birds.—F. M. C.

The Eighteenth Congress of the American Ornithologists' Union

The public sessions of the A. O. U. will be held November 12-14 in the American Museum of Natural History, New York city. The Second Annual Audubon Conference will also occur at the same place during the same week.

Book News and Reviews

EVERYDAY BIRDS. Elementary Studies by BRADFORD TORREY. With 12 illustrations in colors after Audubon and 2 from Photographs. Boston and New York: Houghton, Mifflin & Co. 1901. 12mo. 106 pages. Price, \$1.

Mr. Torrey here writes for young people of two dozen or more common birds and of some phases of bird-life in a manner, it seems to us, well adapted to claim the youthful observer's attention and to make him call for "more." At the best there is such a vast difference between the bird in the bush and the bird in the book that there is often danger too much of the latter may rob the child of his interest in the former, and one is thankful, therefore, when the birds find an interpreter as well equipped as Mr. Torrey.

The illustrations, reproduced by the three-color process from Audubon's plates, are interesting and, as far as we can judge without direct comparison with the originals, most of them seem to be surprisingly successful.—F. M. C.

HADDON HALL LIBRARY. BIRD WATCHING. By EDMUND SELOUS. London: J. M. Dent & Co. 1901. [New York: The Macmillan Co. Price, \$3.00.] 12mo. xi + 347 pages; 6 full-page photogravures; numerous text cuts.

The ideal student of birds in nature, or "bird watcher," as Mr. Selous terms him, must be a patient, conscientious, unprejudiced and skilled observer, with a training which will tell him what are the essential things to be looked for and what is the significance of things seen, and, most important of all, since without it science gains nothing from his labors, he must have the power to record his observations in such a manner that they become available to others—a contribution to the store of human knowledge.

To the ornithologist who aspires to reach this high standard we commend Mr. Selous' volume. Its author's methods of work, mode of reasoning and rare gift of descrip-

tion make his book an addition to the literature of ornithology, as well as to that of general ecology, of unusual merit. While the range of his observations covers many phases of bird-life, he appears—and with good reason—to have been especially attracted by the often remarkable actions of birds during the pairing season, and his observations on the subject of sexual selections are of peculiar value.

Although Mr. Selous writes only of British birds, many of the water birds treated are found in this country; but the matter of species is here a secondary consideration, and we call the attention of American readers to this book because we believe its perusal will be of real assistance to them in studying the habits of wild birds.—F. M. C.

THE BIRDS OF SPRINGFIELD AND VICINITY. By ROBERT O. MORRIS. Henry R. Johnson, Springfield, Mass. 1901. 8vo. 54 pages. 1 map.

This list enumerates 254 species as known to occur within a radius of 25 miles of Springfield, exclusive of five species, which have been introduced. Only one of the latter (the House Sparrow, it is almost needless to say) continues to exist, European Quail, Prairie Hens, Prairie Sharp-tailed Grouse and European Starlings having disappeared after their release. Of the latter it is said that about 100 were liberated in the spring of 1897. "Three of these were alive and well early the following spring, but since then I have not seen or heard of any of them" (p. 42); a rather surprising failure in view of the success which has attended the introduction of this species in New York city.

The annotations duly credit the observations of former observers, and the list is a welcome contribution to faunal literature. It is attractively printed, and we are particularly glad to see that it is issued as a special publication, and is thus accessible to any one desiring to secure it.—F. M. C.

THE BIRDS OF ANDOVER. Prepared by HOWARD I. FORD. Published by the School Department. The ANDOVER [Mass.] Press. 1900. 12mo. 19 pages.

This little pamphlet was prepared for the use of the "teachers and pupils in the Andover schools," and, the prefatory note further states, its "chief aim is to give information of local value which cannot be found in other handbooks." Having so clearly in mind the principal office of a local list, we are not surprised to find that the author has succeeded in presenting his facts in a definite, detailed, and still condensed manner.

The form adopted, a ruled page with the bird's name at the left and annotations in succeeding columns and with blanks for subsequent records, admits of the presentation of a large amount of information in a small space and consequently at a small cost, and we commend it, with the substance of the list itself, to every one having in mind the preparation of local lists for students.—F. M. C.

BIRDS I HAVE SEEN. New York: Dodd, Mead & Co. 1901. 16mo. 169 pages. Price, 50 cts.

This little book has been issued with the admirable object of encouraging the making of notes in the field. Under the headings of "Dates," "Where Seen," "Appearance," "Habits," "The Female," "Its Note," etc., spaces are left to be filled by the student. The book is of convenient size and attractive appearance, but it does not seem to us to have been prepared by a person who has had actual field experience in using a note-book of this character.—F. M. C.

DIGEST OF GAME LAWS FOR 1901. Bulletin No. 16, U. S. Department of Agriculture. Division of Biological Survey. By T. S. PALMER and H. W. OLDS. Washington. Government Printing Office. 1901. 8vo. 150 pages. 8 plates.

This "is practically a complete digest of existing federal, state and provincial laws relating to the capture, shipments and sale of game" (preface), and its publication by the government as an official document

gives to it an authoritativeness second only to the laws themselves.

The game laws of the land are thus made so readily accessible that ignorance of their provisions is inexcusable on the part of either sportsmen, game dealers, or transportation companies. Of the latter, especially, it may be said with truth that 'the game is not worth the candle' and once informed of the requirements of the law they will make no attempt to evade them. This bulletin, therefore, will be welcomed by every one interested in preserving our rapidly decreasing game birds and mammals.—F. M. C.

The Ornithological Magazines

THE AUK.—'The Auk' for July is without an illustration for the first time in many a day, containing, however, its usual array of papers, reviews and notes. There is a list of 91 summer 'Birds of the Black Hills,' by Merritt Cary, and another of 42 'Winter Birds of Pea Island, N. C.,' by Louis B. Bishop, both being of the familiar annotated type. Some 'Unpublished Letters of Wm. MacGillivray to John James Audubon,' by Ruthven Deane, will be read with interest. Herbert Brown writes on 'Bendire's Thrasher,' dealing almost wholly with statistics of nests and eggs, and several new races of birds are described by various authors. 'The Resident Land Birds of Bermuda' are discussed by Outram Bangs and Thomas S. Bradlee, who conclude that four of the seven indigenous birds are sufficiently distinct from their continental brethren to be described as new species. Lack of specimens for comparison of the other three species seems to have saved Bermuda from being furnished with a complete new local avifauna.

A score of pages is devoted to a tenth supplement to the A. O. U. check-list with a fresh stirring about of names, the tenth since 1886. The question suggests itself, Might not more stability of nomenclature be attained by less frequent rulings of the committee?—quinquennial reports, for instance. Newly described forms, like wine, ought to improve or spoil by keeping and other questions are not so pressing. Up-to-

date nomenclature is not needed in editions like a daily newspaper, and if 'Supplements' are to appear every few months, bird students will finally come to regard them, right or wrong, only as a sort of nomenclatural yellow journalism.—J. D., Jr.

THE OSPREY.—Three numbers (May, June, and July) of 'The Osprey' recently have appeared, and, as usual, contain matter of considerable interest. The illustrated paper on the 'Osprey or Fish Hawk,' which Doctor Gill commenced in the initial number of the current volume, is still continued, and Paul Bartsch concludes his article on 'The Dismal Swamp.' To his list of fifty-three summer residents, we can add the following species: Night Heron, Spotted Sandpiper, Bob-white, Dove, Bald Eagle, Red-tailed and Broad-winged Hawks, Phoebe, Fish Crow, Red-winged Blackbird, Meadowlark, Goldfinch, Field Sparrow, Barn Swallow, Brown Thrasher, Long-billed Marsh Wren, and Bluebird. Among the other original articles may be mentioned 'William Swainson and His Times' (part ix), by Doctor Gill; 'A Canoe Trip Up the San Juan River, Mexico,' by Percy Shufeldt; 'My Story of a Sharp-shinned Hawk,' by P. M. Silloway; 'Stephens' Whippoorwill,' by J. H. Riley; 'Blue Grosbeak in Eastern Kansas,' by W. S. Colvin; 'Blue-Gray Gnatcatcher,' and 'The Malar Stripe of Young Flickers,' by Wm. Palmer; 'Tenants of Uncle Sam,' and 'Camping on the Old Camp Grounds,' by Paul Bartsch, and 'Notes on the Birds of the Bermudas, with Descriptions of Two New Subspecies (*Cardinalis cardinalis somersii* and *Sialia sialis bermudensis*),' by A. H. Verrill. Mr. Verrill is unfortunate in losing both these subspecies, for in the case of the Bluebird he overlooked the fact that Linnæus based his descriptions on the Bermuda bird, and a description of the Cardinal by Bangs and Bradlee appeared in 'The Auk' fully two weeks before his paper was issued.

In the review of Doctor Dwight's paper 'On Sequence of Plumages and Moults' there seems to have been some careless proofreading, as 'nuptial,' both in its in-

dependent and combined forms, is uniformly misspelled.

The shorter notes are to be found under the headings of 'Comments and Notes.'—A. K. F.

WILSON BULLETIN No. 35.—This number of the Bulletin contains the following articles: 'On the Occurrence of Two Southern Birds in Virginia,' and 'Spring Horizon, near Lynchburg, Va.,' by J. W. Daniel, Jr.; '*Helminthophila pinus* in Wisconsin,' by N. Hollister; 'The Redpoll in South Carolina,' by W. J. Hoxie; 'Cardinal,' by T. D. Keim, and a number of interesting shorter communications under the heading of 'General Notes.'

Two articles by Professor Lynds Jones and the editor, on 'A Suggestion for Work,' and 'Further Suggestions for Taking a Bird Census,' contain valuable hints which should assist the student in learning more of the life histories of birds.—A. K. F.

Book News.

All nature-lovers will learn with pleasure of the promised early publication, by Charles Scribner's Sons, of a new work by Ernest Seton-Thompson to be entitled 'The Lives of the Hunted.'

McClure, Phillips & Co., announce for early publication 'Songs of Nature,' a selection by John Burroughs, of over two hundred and twenty poems relating to birds, flowers, the seasons, and nature. Mr. Burroughs's fine judgment as a critic and knowledge as naturalist will doubtless make this collection one of unusual charm and value.

'The Birds of Princeton, New Jersey,' by William Arthur Babson, a brochure of some eighty pages, will soon be issued by the Princeton Bird Club, under the editorship of W. E. D. Scott, as its first Bulletin.

We take pleasure in calling especial attention to 'Nature Study,' a journal published with commendable regularity each month by the Manchester (N. H.) Institute of Arts and Sciences. Its articles are all original and, what does not always follow, they are both readable and valuable.

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

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

THE recent action of the Committee on Classification of the American Ornithologists' Union in rejecting as unworthy of recognition by name no less than twenty subspecies of North American birds, which have been described during the past two years, is a significant comment on the feather-splitting tendency of some present-day systematic ornithologists, and an eloquent illustration of the Union's services to the science of ornithology.

While the committee thus saves us from an additional burden of 'bridged difficulties,' it unfortunately cannot save systematic zoölogy from the stigma of this excessive and unwarranted describing of alleged "new" subspecies, and in his retiring address as vice-president of the Section of Zoölogy of the American Association for the Advancement of Science, delivered at Denver in August last, we find Prof. C. B. Davenport saying: "There is only one class of zoölogists that I would wish to blot out, and that is the class whose reckless naming of new 'species' and 'varieties' serves only to extend the work and the tables of the conscientious synonymy-hunter!"

To the A. O. U. we must also render thanks for the continued admirable work of

its Committee on the Protection of North American Birds, by whose labors in securing the enactment of suitable bird protective laws and, what is of far more importance, seeing that they were enforced, the sea-birds of our Atlantic coast have enjoyed a peace during the past nesting season such as they have not known for many years.

Indeed, the Union is deserving of far greater support from the public than it has thus far received, and now that the probable amendment of its constitution will open its ranks to bird-lovers of all classes, it is greatly to be hoped that its membership may be largely increased.

THE Eighteenth Congress of the Union soon to be held (Nov. 12-14) at the American Museum of Natural History, New York city, will doubtless be no less interesting than its seventeen predecessors. A number of fully illustrated papers is assured, including the report of the Committee on the Protection of North American Birds.

MR. HOFFMANN'S article on the Least Flycatcher, in this number of BIRD-LORE, contains some interesting comments on the method of bird-study which advocates the removal of the branch with the nest and young to a convenient position near a tent, from the concealment of which the student may readily observe, and, if he be a photographer, graphically record the life of the nest.

To the bird-photographer who has conscientiously photographed his nests *in situ*, often risking life and limb in his effort to picture the nest just where the bird placed it, this summary manner of settling the difficulties so frequently imposed by site are, at first thought, not a little shocking, while the possible dangers to the young which may follow deprivation, for a time, of food, and exposure to sun, storm and earthly enemies also suggest themselves.

Under the direction of such a skilled, careful and humane student as Professor Herrick, the originator of this method, has proven himself to be, these dangers are minimized, but this fact should not lead us to overlook their importance.

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 (President of the Audubon Society of the State of Connecticut); Fairfield, Conn., to whom all communications relating to the work of the Audubon and other Bird Protective Societies should be addressed. Reports, etc., designed for this department should be sent at least one month prior to the date of publication.

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The New Bird Laws

The fact that the Department of Agriculture announces the publication of a digest of the game laws of the United States calls attention to the radical changes made in these laws during the past three years.

We believe that the long day of promiscuous slaughter for any and all purposes is drawing to a close. Whether there is yet time to reestablish the larger game birds in their haunts remains to be proved, but already we hear in many directions of the increase of song-birds, and the pleasant interview of Garret Newkirk with a Missouri farmer that we publish this month is significant.

During the past year an almost similar code has been adopted by California, Connecticut, Indiana, Michigan, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, Florida and Arizona Territory.

All the state legislatures have given more or less attention to game protection, the length of the open season has been in many cases curtailed and the majority have some form of non-export law, while in many states non-residents are not allowed to hunt without taking out a license, for which they must pay.

Of the eastern coast states Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey and Florida are practically under the uniform A. O. U. law variously modified or expanded, the Carolinas, Virginia and Georgia being, unfortunately, gaps in the chain.

Connecticut has seemingly gone more thoroughly into the matter than any other state, and is the only one, so far, we believe, to check pot-hunting, not only by forbidding the export of game, but also by forbidding its sale for two years. The law reads, "Shipments of all game out of

the state are prohibited. The sale of these birds is prohibited at all times."

That these laws are the outcome of a popular reaction there is no doubt any more than that the reaction was started by the various protective associations, both Federal and State, chief among which stand the protective committee of the A. O. U., the League of American Sportsmen and the State Audubon Societies. To gain an adequate idea of the number and scope of the various state and local societies formed for bird and game protection, we wish every one would read the list, p. 664-671, in the "Year Book" of the U. S. Department of Agriculture for 1900.

Everywhere in these laws is the strength of coöperation visible, a coöperation that should be also applied to the work of the Audubon Societies more especially in relation to their published material than in their individual methods, which must necessarily be local and specialized.—M. O. W.

SECOND ANNUAL AUDUBON CONFERENCE

The Second Annual Conference of the Audubon Societies will convene at the American Museum of Natural History, New York City, November 14, 1901, under the auspices of the Audubon Society of New York State, which extends to the members of all Audubon Societies a cordial invitation to attend the public meeting of the Societies on the afternoon of the day above named.

REPORT OF CONNECTICUT SOCIETY

(Presented at the Fourth Annual Meeting, held at Stamford, May 25, 1901)

During the past year the Executive Committee has held nine meetings to transact the business of the Society.

Part of our work has been the purchase of more books for our traveling libraries, to which we have added four sets of eleven books each. We are much encouraged by the reports of the educational work these libraries are doing in the schools and villages where they are circulated.

We have also purchased from the Massachusetts Audubon Society sets of colored bird charts, which show the common birds

of New England. These charts we send to our local secretaries for their use in schools or bird classes, or to the schools themselves. We have felt much encouraged by the special interest which our State Board of Education has shown in our work through its secretary, Mr. C. D. Hine. It now has charge of our lecture outfits, our traveling libraries and most of our charts, and our desire is to purchase more of these materials which they utilize so well, as we think the Board of Education can extend this branch of work better than we can.

Our membership this year has been increased by 4 sustaining members, 45 regular members, 46 teachers, 828 junior members and 642 associate members, making a total of 1,565 new members. I have had most interesting reports from twenty-three of our local secretaries, showing what excellent work they are doing in the towns of Norwalk, Stamford, South Woodstock, Middletown, Norwich, North Woodbury, Watertown, Granby, Scotland, New Canaan, Enfield, Bristol, Stratford, Bridgeport, Wethersfield, New Milford, Redding, Haddam, Madison, Willimantic, Hartford, Westport and Woodbridge.

The local secretaries form bird classes, or speak to the children in the schools and interest them in bird protection, and, as one wrote to me, "call the children's attention to the birds," as often people live all their lives among birds and hardly see them or hear them, because no one has "called their attention" to them, and the children continue thoughtlessly to stone birds and rob their nests, because no one has spoken a few simple words that will touch their hearts.

Another one writes: The children have had their eyes opened at last, and they are alive to the fact that it pays to protect the birds. In another school the children made a chart of their own from sets of colored birds sent out by some insurance company as an advertisement, and being their own work, this chart is particularly enjoyable to them.

One town, Madison, had six sets of our bird charts at one time. In some towns a bird calendar is kept, giving the date of seeing the bird, its name, name of observer and place.

From Stamford we hear that many birds have been kept around all winter by teaching the children and others to feed the birds, placing pieces of suet and seed boxes on the trees.

In Hartford our local secretary has, by her bird talks in the public schools, fascinated the children and gained us 395 new junior members. On Bird Day she spoke in seven schools.

In Westport the local secretary held bird talks around the cages of the village store, where a Barrel Owl, two Screech Owls and a Chicken Hawk, a Coon and two flying squirrels were on exhibition and well cared for.

The Bird Day program which the Executive Committee arranged this year was printed and sent out by the Board of Education. The Society has sent \$20 to the Thayer fund for the keeping of wardens on the shore to protect our Gulls and Terns, a much-needed work.

We feel sure that the Audubon Societies, having made themselves a power, are now accomplishing the desired results. But our work is not done, only begun. It must be continued, or our past work will be lost in a few years. We must keep our sentinels on the watch, or the milliners will think we are sleeping and plumage come into vogue again.

This year we ask for an increased interest among the school children. Quoting from another one of our workers: "The good resulting from the work of the Society among children will not end merely in the protection of our feathered friends, nor in the pleasure their presence gives to admirers of fleeting grace and beauty and to lovers of bird song, nor even with the practical side, the benefit to the farmer in saving his crops from the devastation of insects. The effect upon the children themselves will be salutary. Who will question the truth of the statement that the perceptions will be quickened by studying and enjoying this form of outdoor life? The rousing of the finer sensibilities of the children by teaching them to guard the welfare of those innocent, and, in a way, defenseless creatures, formed by the same wisdom and love that

endowed us, His highest creation, with life, can but have a refining tendency upon the characters of those we are striving to train to noble manhood and womanhood."

HELEN W. GLOVER, *Secretary*.

Library Report.—A special feature of the Connecticut Audubon Society during this last year, and one to which we attach much importance, has been the distribution of its libraries through the Connecticut Public Library Committee.

Beginning this work a little more than a year ago, with about one hundred books as a nucleus, their constant circulation, and the appreciation with which they have been received, are evidences of their popularity.

When it is known that the libraries are sent out to schools where the children and often the teachers have no other opportunity of obtaining books, it will be readily understood how gladly they are welcomed.

The children not only acquire a love for reading but they learn the names of the "green and growing" things in their woods and gardens, to know the interesting habits of animals, and to care for and protect our birds.

One teacher writes of going to the woods with the children and sends a list of uncommon wild flowers they have found with the aid of Mrs. Dana's "How to Know the Wild Flowers." Another tells of the interest with which her scholars have listened to Seton-Thompson's "Wild Animals I Have Known," and to Mrs. Wright's "Four-footed Americans," as she has read and re-read them to her classes. One writes of Library No. 7, The Olive Thorne Miller Library:

"After reading these books I noticed that the children grew very fond of watching the birds and their nests. Every noon they would take their dinners and go off into the woods near by to see the birds. When they returned they were eager to tell the many interesting things they had noticed. They found a number of new nests and visited them every day, watching anxiously for the time when the young birds should be hatched."

We learn by the receipts that the libraries are not so much in use during the fall and winter as in the spring, when outdoor observation can be carried on in connection with the reading, which proves that a practical use is made of the books.

Pictures always appeal to children, and to satisfy a demand for "more pictures," four new libraries of eleven books each, profusely illustrated, have been added this spring.

We feel that there can be no more satisfactory way of reaching the children than through the medium of these good books, for to them not only the children, but the older ones in the community, will owe an influence in their lives which can hardly be overestimated.

GRACE R. MOODY, *Librarian*.

FLORIDA SOCIETY!

It may be of interest to some of your readers to know that Florida, the land of sunshine, flowers and balmy breezes, has at last awakened to the fact that these combined are not *all* that make their state so attractive and so different. They find (even the most unconcerned) that their rivers, lakes and woods are strangely silent, and that some of the old-time charm and beauty has gone. The tourist misses the picturesque Heron, the White Crane with his wise look of intentness, as with one leg poised he waits by some quiet sheet of water for his daily meal. The woods are no longer alive with birds darting hither and thither and filling the air with their cheerful songs, the *cheer-up, cheer-up* that delighted our fancy. The birds whom we were sure some years ago said *Dewey, Dewey, Dewey*, and even the harsh note of the pretty Blue Jay are in some parts of the state things of the past. A visitor from Porto Rico told me there were *no* birds there and added, "to this you will soon come unless you protect your few remaining birds." So some to whom these feathered songsters are real friends, and who grieved to see them so wantonly destroyed, met together and the Florida Audubon sprang into existence. Hardly had its work begun when it suffered a great loss in the death of its

founder, Mrs. L. F. Dommerich. But those who are still members will try and carry on the work so wisely planned by her. At the first annual meeting, March 8, great interest was shown. Bishop Whipple* is still its honored president, and many persons of influence are enlisted in our ranks, and the work is again going on. Letters from all over the state are daily received by the secretary and new members are being added. In West Palm Beach and Daytona, very active interest is shown and strong measures taken to protect bird life. Literature and leaflets are being distributed throughout the state, and we trust in a few years our eyes and ears will be gladdened as of old. Sunshine, flowers and the happy song of our thousands of native birds, and Florida is Paradise indeed.

MRS. I. VANDERPOOL, *Secretary*.

For Our Encouragement

"Birds are ten times as numerous as they were five years ago," said a farmer to me, as we were driving along a country road in North Missouri, in July, 1901.

"How do you account for it?" I asked.

"Well," he replied, "there are several reasons. Principally, because they are let alone. The boys have stopped killing them. There is no more demand for them for women's hats. The farmers learned, too, that their orchards and grain crops were suffering from insects, and they were informed by writers in the newspapers and magazines that the remedy was in saving the birds. So their children were told not to disturb them nor their nests.

"I have seen a number of articles written by women, in such papers as the New York *Tribune* and St. Louis *Globe-Democrat*, pleading for the birds, and remonstrating against the wicked custom of wearing them on hats. Such articles are quoted and talked about in the country, and have a great influence. Another thing;—we farmers have made a fight against the English Sparrow. We will not let him stay about our barns or houses. The children are

*While this report is on the press we learn with deep regret of Bishop Whipple's death. — ED.

instructed to exterminate him and his nests wherever found. My little boy, 8 years old, discovered that the English Sparrows were trying to drive the Martins out of the boxes we had placed for them. They had possession of one box and were closing up the hole so that the Martins could not enter, but leaving it just wide enough for themselves. He climbed up and tore away their obstructions several times, till they got tired and left. We have not had any since, and the Martins stay with us."

On this ride of eight miles, all the way between farms and orchards with trees and bushes along the roadside, I saw Kingbirds, Field Sparrows, Vesper Sparrows, Yellow Warblers, Goldfinches, Nuthatches, Robins, Wrens, Doves, Quail with their young, Jays, Brown Thrashers, Flickers, Red-headed Woodpeckers, hundreds upon hundreds of Meadowlarks, and others I could not name.

The remarks of my farmer friend, corroborated by my own observations, seemed to me to be very encouraging to all of us who have been trying to speak a word in season as opportunity presented, on behalf of "our feathered friends."—GARRETT NEWKIRK, *Los Angeles, Cal.*

Visible Results

Twenty years ago no birds were more conspicuous along the coast of Maine than the Common and Wilson's Terns. They were to be seen wheeling, splashing, floating about every cove and headland, and their sharp ki-yi-ing was heard in every direction. But during the eighties they diminished steadily and during the nineties they became scarce. Many a time of late years I have sailed the whole distance up the Penobscot to the head of tide-water without seeing a Tern, and during two full years that I was resident in Eastport, Maine, I never either saw or heard one. This is the more remarkable because, for some months, one summer, I was living within a hundred yards of a natural fishing station for them, and even had I failed to see the birds I must have heard them had any come near.

This year, however, I have been agree-

ably surprised to find the Terns once more on the coast. In each of four trips up and down the river I have seen them in considerable numbers. In one flock I counted over forty birds, and it seemed good to hear their sharp, wild-cry again.

Judging from their former scarcity and this sudden reappearance, it would seem that the efforts to protect their breeding grounds must have met with some success, and that continued protection would restore the Terns in their old numbers.

I have seen no Bonaparte's Gulls this season, nor any Herons, nor Loons. Herring Gulls have been present in about their usual numbers and Fish Hawks in small numbers. The latter is a bird well worth protecting, if merely for the interest it adds to a trip along the coast. A large bird is interesting merely because of its size; if, like the Osprey, it is not inclined to be shy, is not too particular about its nesting places, and does no harm, it should be encouraged whenever possible. We have but four large land birds that can be called characteristic of the Maine coast—the Bald Eagle, the Raven, the Heron and the Fish Hawk. All of the first three are wary birds; the Heron is so particular about its nesting sites as to be rather necessarily a local bird, and the Eagle and the Raven are so destructive to the island sheep as to be legitimately hunted. But the Osprey, or Fish Hawk, is very properly entitled to all the protection that may be afforded by individuals or societies, and deserves a good word.—FANNIE HARDY ECKSTORM, *Brewer, Me.*

Proposed New English Law

The English Humanitarian League has prepared a bill, which will soon be introduced in Parliament, making it a finable offense for any person to sell or wear any article of dress to which there is attached, securely or otherwise, the plumage, skin, body or any part of the birds named in the bill; the list provided particularly includes the Aigrette, Bird of Paradise, Tern, Kittiwake, Kingfisher, Hummingbird, and Impeyan Pheasant.—*Fur Trade Review* for August, 1901.



Bird = Lore

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

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. III

NOVEMBER — DECEMBER, 1901

No. 6

Recognition Marks of Birds

BY ERNEST SETON-THOMPSON

Illustrated by the Author

IN general the markings of animals are believed to be either *protective* or *directive*; that is, designed either to *hide* the animal, or else to *distinguish* it and make it conspicuous or ornamental.

In the bird world we have many illustrations of both kinds of coloration in the same individual, for many species are *protectively* colored while *sitting* and *directively* while *flying*. Or, to put it in another way, the colors of the *upper parts* show chiefly when the bird is perching, and these are *protective*; the colors of the *lower parts* and expanded wings are *directive*, and are seen chiefly in flying. All birds with ample wings and habits of displaying them, bear on them distinctive markings; for example: Hawks, Owls, Plovers, Gulls, etc. All bird students will recall the pretty way in which most of the Plovers let the world know who they are. As soon as they alight, they stand for a moment with both wings raised straight up to display the beautiful pattern on the wing linings; a pattern that is quite different in each kind and that is like the national flag of the species, for it lets friend and foe alike know what species is displaying it.

On the other hand, birds like the Hummingbird, whose wings move too rapidly for observation, are without color pattern on the under side. These markings, no matter which category they belong to, are put on the bird first of all to be of service to its own kind. That is certain, as certain as the main truth of evolution; for, as Darwin long ago stated, if it can be shown that any species has acquired anything that is of use only to some other species, then the theory of evolution by natural selection must fall to the ground.

But this does not say that an acquired characteristic may not also be of use to another species. Thus the directive and recognition marks of the Hawks and Owls as illustrated on my plate are, of course, first to

enable the birds of each species to recognize their friends, just as soldiers are uniformed so that each may know his own party. But the uniform also enables the enemy to distinguish him, so these recognition marks enable us to distinguish the birds at an otherwise impossible distance.

The directive marks of the common northern birds of prey are those selected for illustration. The size, shape and general color of the birds, as well as the spots, all enter into the plan. Those shown are adults; the young in many cases are different, but have nevertheless a recognized natural uniform which usually agrees in important features with that of its parents. Thus the white rump-spot is a constant and distinctive feature of the Harrier in any plumage. So is the white collar of the Horned Owls. The mustaches of Peregrine and Broadwing, and the wrist-spot, i. e., the dark splotch on the bend of the wing in the Buteo's and in the tufted Owls, also the breast-band on Swainson's Hawk and the body-band on the Rough-leg (see plate).

Late one evening as I walked through a marsh a large hawk-like bird rose before me. In the dim light I barely made out that it was a bird of prey, but as it went off I saw the *white spot* on the rump and that settled it beyond question as a Marsh Hawk or Harrier.

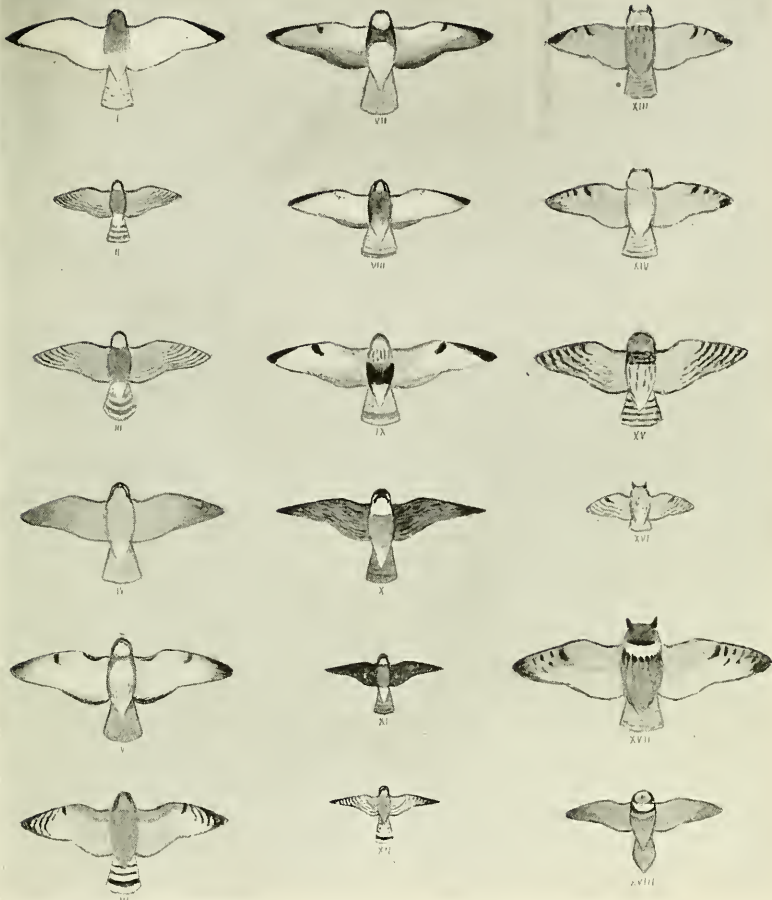
On another occasion I saw a bird in a tree. Its size and upright pose said 'Hawk.' On coming nearer its mustache marks said either Peregrine or Broadwing. But when it flew, the pointed wing and swift flight made certain that it was a Peregrine. Again a young Redtail sailed over my head in an opening of the trees. I took it for a young Goshawk, but before I tried to 'collect' him I saw the wrist-spot that labeled him 'Buteo,' and so let him go.

The usefulness of the color-spots is increased by another well-known law, namely, that the peculiar feature of a species is its most variable feature. Thus the greatly developed bill of the long-billed Curlew, the beak-horn of the Pelican, the neck of the Swan, the collar of the Loon, are much more variable than features that they have in common with others of their group.

So, also, these markings are never twice alike. They keep the same general style but differ in detail with each individual, so that the birds can recognize each other personally, just as we do our friends by peculiarity of feature.

Of course color-spots are not the only things to be considered; pose, flight, voice, locality, probabilities and tricks of attitude all come in to help.

A long reddish bird darted past me to alight in a tree that almost concealed him. I thought it a Thrasher, but the deliberate pumping of his tail (another recognition mark), taken with his size and color, told me at once that it was a Sparrowhawk.



By permission, from 'The Auk'

DIRECTIVE MARKS OF HAWKS AND OWLS

- | | | |
|--------------------------|--------------------------|-----------------------|
| I. Marsh Hawk | VII. Swainson's Hawk. | XIII. Long-eared Owl. |
| II. Sharp-shinned Hawk. | VIII. Broad-winged Hawk. | XIV. Short-eared Owl. |
| III. Cooper's Hawk. | IX. Rough-legged Hawk. | XV. Barred Owl. |
| IV. Goshawk. | X. Duck Hawk. | XVI. Screech Owl. |
| V. Red-tailed Hawk. | XI. Pigeon Hawk. | XVII. Horned Owl. |
| VI. Red-shouldered Hawk. | XII. Sparrow Hawk. | XVIII. Hawk Owl. |

A long-tailed Hawk, too far away to make certain of, I supposed was a Cooper's, but he alighted on the ground and then I knew it must be a Marsh Hawk.

Each species has its own habits and sounds as well as colors, that help in its recognition, but the most useful all-around label-marks are those of color-pattern or uniform.

A Bird of the Season

BY C. WILLIAM BEEBE, Assistant Curator of Birds, New York Zoölogical Society

Illustrated by the author

ONE of the finest and rarest bird exhibits in the New York Zoölogical Park is in the dense thicket of trees and tangled undergrowth in which the flock of Wild Turkeys find a perfectly congenial home. The three hens and the pompous and iris-plumaged old gobbler are as much at home as if in the depths of their native forests in Virginia. They are more easily observed in winter than in summer, on account of the thick growth of sumach, sassafras and grape-vines which has been allowed to



MALE WILD TURKEY AT THE NEW YORK ZOÖLOGICAL PARK

grow up in their enclosure, but any time one or more of the Turkeys may be seen scratching among the dead leaves or roosting on some high limb.

All of the hens have nested and laid eggs, but two factors have made the raising of the young birds a matter of great difficulty, up to the present. One of these is a liver disease which has killed a number, and for which no treatment has thus far been successful. Wet weather is the second enemy from which the newly-hatched chicks have suffered, the slightest wetting during the first two or three weeks after hatching proving fatal.

Last year a raccoon climbed into the inclosure and killed seventeen young chicks in a single night, but was captured later, and as a penalty suffers imprisonment for life. This year, perhaps, as a result of the knowledge obtained from costly experience, better success has attended the efforts at

rearing these delicate chicks and fewer have been lost through disease. Two of the Turkey hens are not good mothers, neglecting the chicks, so that it has been found necessary to take the eggs from these Turkeys and hatch them under hens, and when the young Turkeys have grown as large as their foster-mother, it is amusing to see these large, clumsy fowls rush at her when she has found a titbit, often buffeting her roughly between them. If at this age they should ever attempt to get under her wings she would certainly be lifted off her feet.

The marvelous way which young Quail and Partridges have of disappearing and making themselves indistinguishable among the dead leaves has often been related, but I hardly thought it possible that these larger cousins of the Grouse could be successful in this ruse. On June 14, of this year, a



MALE WILD TURKEY AT THE NEW YORK ZOÖLOGICAL PARK

Turkey mother brought off eight chicks from her nest of leaves near the center of the range, and they were allowed to remain in the enclosure a day before being removed to the pheasant-breeding coops away from rats and other vermin. In catching the young birds no precautions were taken, except to drive the hen Turkey and chicks to an opening in the undergrowth and then separate the mother from her brood. Two of the young birds were picked up, but ten minutes' search failed to discover a trace of the remaining six, although it was certain that they were within a radius of five feet. It was necessary to allow the two captured chicks to go, and then drive the mother to the spot, whereupon, at her low cluck, the entire six appeared as if by magic. She was then driven against a perpendicular cliff of rock and with the help of a third man and about five minutes' search, all eight birds were secured. This year one of the Turkeys nested a second

time and began incubating on July 7, another proof of how perfectly the environment of the birds is suited to their habits.

When in the mornings, the old monarch of the flock struts back and forth on the fallen tree near the entrance of the enclosure, pompously swelling out his breast, and with trailing wings utters his mellow, "gobble-gobble-gobble," he makes a beautiful picture, the sun reflecting iridescent hues from each copper- and bronze-tinted feather. No ordinary barnyard Thanksgiving reminder, this, but a true native of American forests, who with wolves and panthers has been driven or exterminated from all except the more inaccessible corners of the country. May his descendants increase and live long to enjoy the security and admiration which their quarters in the New York Zoölogical Park assures them.

Mockingbird Notes

BY MRS. LUCY GOULD BALDWIN

Illustrated by A. RADCLYFFE DUGMORE

A PAIR of Mockingbirds passed last winter in my flower garden, at Baldwin, Louisiana. They were fed daily on the porch and became so tame that they would pick up crumbs when we were only a few feet from them.

Earlier than usual, as the weather was warm and pleasant, they began preparations for housekeeping. A low trellis with a tangle of vines was chosen as the site of their loosely constructed nest of sticks lined with hair, and on March 25 it contained four eggs. April 5 three of the eggs had hatched, the remaining one proving unfertile, and ten days later the three young birds left the nest.

About May 1 we missed the female, and the male alone fed the fledglings. However, he frequently pecked them and soon drove them viciously out of the garden.

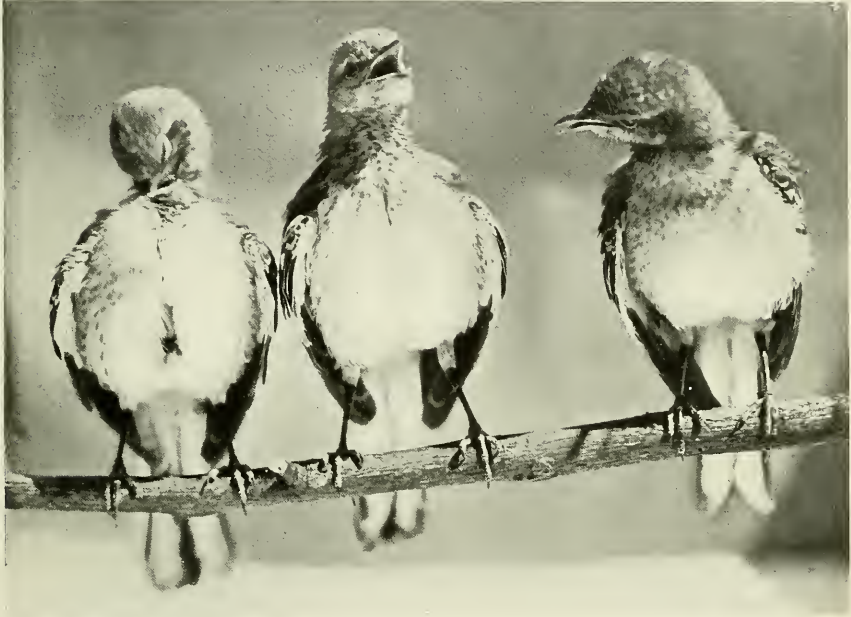
May 5 the same nest contained five eggs, which were evidently the property of the birds that had already raised one brood in it, and on May 17 four of the eggs hatched, the period of incubation, therefore, being about twelve days. On May 29, or, when 12 days old, two of the young left the nest, having been in it two days longer than the first brood. One of the four fell a victim to some enemy in the early morning.

On June 7 and 8 the female was seen occasionally, but was indifferent to her young, who were fed by the male early and late. On June 10 and 11 these observations were repeated. By the 16th they required less active care and on the 19th came to pick up crumbs from the 'side-board' we had placed on the piazza for the old birds. June 20 the young disappeared and the old birds were seen carrying sticks and Spanish 'moss' into a 'sweet

olive' shrub about one and a half feet from the ground, where they constructed a new nest which on the 23d contained one egg, on the 24th two, and on the 26th four, this completing the set.

The male, who for weeks had uttered only the harsh, unmusical call characteristic of the species, now sang beautifully in the early morning.

The fate of the last nest we unfortunately do not know, as on June 28 we left for the season, but the observations already made show that at least three families were started by this pair of Mockingbirds in a season.



Copyright by A. Radclyffe Dugmore

YOUNG MOCKINGBIRDS

Photographed from life

A Christmas Bird Census

The interest aroused by BIRD-LORE'S Christmas Bird Census last year (see BIRD-LORE for December, 1900, and February, 1901) suggests a repetition of this modern development of the 'Side Hunt,' on December 25, 1901, when we hope those of our readers who have the opportunity will take to the field and send us, the same day, the results of their observations. Such reports should be headed by a brief statement of the character of the weather, the force and direction of the wind, hour of starting, with the temperature, and of returning. Then should follow, in the order of the A. O. U. 'Check-List,' a list of the species of birds seen, with exactly or approximately the *number of individuals* of each species recorded.

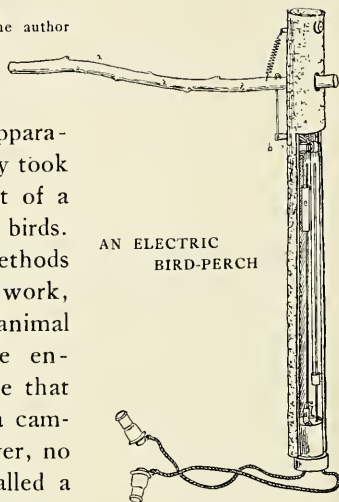
A New Device for Securing Birds' Pictures

BY FRANK M. CHAPMAN

With photographs from nature by the author

THE success of Mr. George A. Shiras, of Pittsburg, in securing photographs of deer by means of an automatic apparatus whereby the animal photographed virtually took its own picture has suggested the employment of a not dissimilar plan in procuring photographs of birds.

Though not familiar with Mr. Shiras' methods and with no experience in his special field of work, it nevertheless seems evident that with an animal as strong as a deer no difficulty would be encountered in so arranging a string or trip-line that the deer in striking it would readily spring a camera shutter. In the case of small birds, however, no success was had in making what might be called a 'camera trap' until electricity was employed; then with the assistance of Messrs. Rowley and Schneider, at the American Museum of National History, a design was evolved, which, in practice, seems to possess some merit.



AN ELECTRIC
BIRD-PERCH



BLUEBIRD ON ELECTRIC PERCH

It was soon found that if the circuit was completed and the picture made the moment the bird alighted on what may be called the 'trigger' of the trap, the picture would represent a bird in motion with wings flap-

ping or folding almost in the face of the camera, and it was therefore found necessary to devise some means by which the exposure could be deferred until the bird was in repose. The result is shown in the accompanying figures. When the bird alights upon the perch *a*, the check resting on the wheel *b* is removed and as the wheel revolves the heavier of two weights *c*, sliding on rods, descends and enters *d* and *e*, the negative and positive poles of a dry battery. The circuit is thus closed and by means of a small electro-magnet on the camera the shutter is released and exposure made.

How the bird is to be induced to alight on the perch is a problem which each user of this modern development of a bird trap must solve for himself.

The accompanying pictures of Bluebirds were obtained by placing the perch near their nest; the camera was then focused on it and the whole



BLUEBIRD ON ELECTRIC PERCH

affair left until, on returning, the shutter was found to have been sprung, when the exposed plate—representing, potentially, the trapped bird—was removed, a new one introduced and the 'trap' set for another capture.

No other trial has as yet been made, but in addition to its use near nests, the apparatus could doubtless be employed with success in large fields or meadows frequented by Hawks, or, carrying the comparison with a trap still further, it might be baited with meat, seeds, or fruit which would induce birds to alight on the perch and unconsciously leave their image.

Bird-Life in the Klondike

BY TAPPAN ADNEY

Author of 'The Klondike Stampede,' etc.

IT is less from the point of view of the naturalist than of the miner that I know the birds of Klondike—we were all 'miners,' in a sense, who went to Klondike in the midst of that unparalleled excitement. So strenuous were the exertions required to keep body and soul together that there was small time to think of anything which did not supply one with food or raiment. We were somewhat like the savage who names only conspicuous and useful birds, and throws aside the rest as unworthy of notice. In summer many birds might escape observation; in winter, in the dead silence of arctic winter, it would seem, surely, that no stir of any kind would fail to be noticed. Yet a trained observer, the author of one of the best books relating to the human affairs of that country, who used to pass my cabin on Bonanza creek almost daily, has written: 'The Raven and the little Starling are the only birds, except the game birds, that one ever sees or hears for eight long, dreary months.' 'Game birds' doubtless means Ptarmigan; 'Starling,' I cannot guess. Surely a short list.

In the Raven, however, he has pointed out what I should call 'the bird of the Klondike.' In winter and in summer this great *Corvus* is everywhere seen and its hollow, metallic '*klonk*' is the most characteristic sound. Conspicuous its black flapping against the white snows, its uncanny croak falling upon the ear; to the traveler along the dreary wastes of the frozen Yukon, it seems so fitting a part of the somber landscape that the impression is not readily effaced. Partaking of the cautious disposition of its relative of the cornfield, nevertheless in winter it visits the cabin yards of the miners in search of the few waste morsels of food and it follows the hunters and the roving bands of wolves, feeding on the offal of moose and reindeer which they kill. But it ever remains a mystery how life is sustained during those long, dreary months. In summer they build their nests and rear their young upon the tall inaccessible cliffs which line the Upper Yukon.

Had I known my friend was about to write, virtually, 'there are *no* birds in Klondike,' I could have taken him, almost any day in winter, to the door of my cabin and this is what he might have seen and heard. First let me describe the spot:

Bonanza creek, coursing through a V-shaped cleft in the almost barren hills, reaches the broad alluvial valley of the Klondike river. This flat is covered with tall spruce, many being a foot in diameter, and growing as thickly together as anywhere in the world. Among the evergreens are thickets of small white birches, nowhere whiter or more

beautiful. The creek, reaching this wooded flat, winds from side to side, its bed only a few feet below the level and fringed with alders, which are here trees rather than bushes. The trail cut through the woods for the dog teams from Dawson to the mines, strikes the creek half a mile from the river and thence follows the frozen creek-bed. Where trail and creek meet stands our cabin, surrounded by evergreens and birches. The branches of the evergreens sag beneath the weight of snow which there is not a breath of air to dislodge. Red squirrels have left their trails from tree to tree on the snow, exactly as in a forest in Canada. As we open the door and step out into the sharp, keen air, a soft 'took, took' is heard and a Quaker-gray body which has been hopping about the door-yard flies to a limb near by, and is answered by other soft sounds. Presently another gray breast is seen approaching by short flights through the spruces. The miner calls them 'camp robbers.' We know them as Moosebirds, or Canada Jays, and recognize here in the wilds of Klondike the same confiding, impudent fellow as in the woods of Maine. They are fairly plentiful, and in their silent travels they frequently visit the cabins of the miners. There was one which used to peck regularly at the single pane of glass which served for the window of a miner's cabin on Eldorado. Regularly three times a day he came, and I was told that he never varied from his time by more than ten minutes. It was starvation time; pork, flour, dried apples and a few beans were about all the two men had who lived in that cabin, but the little fellow in gray never went away without something.

Ere the 'robbers' have departed, there is a snapping sound overhead, and bits of cone come tumbling down upon the cabin roof. It is a flock of White-winged Crossbills, gathering their daily provender. A little way off is heard the familiar 'dee, dee, dee' of the common Chickadee. A Raven flying up creek gives voice at intervals to his 'klonk.'

These were the sounds that I had always about my camp. As the days grew lighter flocks of Redpolls, with pink breasts and crimson caps, came about, feeding in the trees. During the winter I wandered much over the country, one time with a roving band of Indian hunters on the far reaches of Klondike, and never at any time by day was I out of sight or sound of birds; while as the spring sun rose higher above the southern horizon the woods at times seemed alive with birds. Nowhere have I seen Crossbills and Redpolls so plentiful and noisy. One Blue Grouse, the only one I saw or heard of, as well as a few Canada Grouse, I added to my scant larder. One day about the last of April, I heard a drumming near the camp, and a few days later, when the snow was thawing in patches, I saw, upon stepping outside, standing upon a log in a bare spot under a tree a drummer (Ruffed Grouse). Several days later I found another, also a drummer, on the same spot, showing that I had built my house by a favorite drumming-log. Of

the Grouse family, however, the only species really plentiful is the Ptarmigan. Upon the bald, wind-swept tops of the highest hills alone they are found (never, as I am aware, in the sheltered valleys) in flocks of thirty or more, feeding upon a small red berry with which the ground is covered. In winter their tracks, like those of chickens in a barn-yard, may be seen running hither and thither over the snow. Their pure white color at this season makes them inconspicuous objects, a fact which they seem to realize, as they often permit an approach to within a few yards.

Seasons change rapidly in the far north, and at the approach of March (the pleasantest month of the year) the earth springs suddenly into life. The snow fades from the southern hillsides at the magic touch of the sun. The snow falls from the trees. Day by day the stream of water on the frozen watercourses grows in volume, and the ground is bare in many places in the woods. By the 10th of April, Crossbills are mated, and their sweet, melodious love songs are heard from the upper twigs of the young spruces. Every tree along the wooded bottoms seems to pour forth some sound of gladness. The Redpolls, still in large flocks, sing as they work among the birch buds a song that resembles that of the American Goldfinch. Snow-buntings from southward are seen scurrying over the snow in the opens. By the first of May the creeks are torrents, the rivers ready to burst their bonds of ice, and Ducks and Geese are seen on their bosom. The first week in May, the migration is on. In the woods now about my camp what a medley of sound! No birdshop, no spot in Central Park at the height of migration shows more bird-life and sound than this bit of woods of a warm spring morning. Overhead the ubiquitous Raven. The familiar 'tsill-up' of the Red-shafted Flicker resounds from afar. The *cheery, cheery, cheer-up* of the Robin, the murmuring tremulous note of the rare Bohemian Waxwing, resembling so much our well-known Cedarbird in both appearance and notes as to mislead the unwary; the jangling notes of scores of handsome Rusty Grackles walking along the margins of the water. From the undergrowth the chipper of White-crowned Sparrows and Juncos; the lisping *tsip* of Yellow-rumped Warblers; the slender wiry notes of an unknown Thrush—all these mingled with the melody of Crossbills and Linnets in one grand chorus!



On Hearing a Winter Wren Sing in Winter

By LYNN TEW SPRAGUE

When wintry winds through woodlands blow
And naked tree-tops shake and shiver ;
While all the paths were bound in snow,
And thick ice chains the merry river,
 One little feathered denizen,
 A plump and nut-brown winter wren,
Sings of spring-time even there —
"Tsip-twis-ch-e-e-e cheerily-cheerily-dare"—
 Who could listen and despair ?

Charmed with the sweetness of his strain,
My heart found cheer in winter's bluster ;
The leafless wood was fair again,
Its ice-gems sparkled with new luster.
 The tiny, trembling, tinkling throat
 Poured forth despair's sure antidote,
 No leafy June hears sweeter note —
"Tsip-twis-ch-e-e-e cheerily-cheerily-dare"—
 The essence of unspoken prayer.



"CAUGHT IN THE ACT"

Yellow-bellied Sapsucker feeding on sap of mountain oak. Photographed from nature by Dr. Thos. S. Roberts at Minneapolis, Minn., June 20, 1901

For Teachers and Students

How to Name the Birds

STUDIES OF THE FAMILIES OF PASSERES

BY FRANK M. CHAPMAN

FIRST PAPER

DURING the past year BIRD-LORE has published a series of articles on "Birds and Seasons"* which, with "Suggestions for the Season's Study" and "Suggestions for the Season's Reading," were designed to tell the student what birds he might expect to find during each month in the year and to call his attention, in due time, to the more characteristic phases of bird-life as they were developed. It is now proposed to supplement these articles with a series of papers on identification.

It may well be questioned whether, in view of the numerous text-books which have been especially prepared to assist beginners in naming birds, anything can be written which will further simplify the problem of identification, but the receipt, almost daily, of descriptions of birds which the observer is unable to find in any manual encourages a further attempt to lighten the labors of the student of 'birds through an opera-glass.'

The Importance of a Comprehensive Grasp of the Subject.—If the student can only be induced to survey the ornithological field, at least superficially, before entering it he will find his way wonderfully simplified. The path to a knowledge of birds is by no means so tortuous as those who tread it in the dark believe. Our birds are not unlimited in number—they are all included in our text-books; no new species, in the United States at least, remain to be discovered, and if instead of attempting to identify a bird by aimlessly turning the pages of a book with a hope that something like your rather vague mental image may be seen in the illustrations, the student will devote a few hours to memorizing the characters on which the families of birds are based, he will find the knowledge gained of service to him every time he essays to name a bird.

The Families of Land-birds.—Omitting, for the present, all reference to water-birds, few of which come within the range of the average bird student's glasses, we have left in North America, east of the Mississippi, the following eight orders and thirty-two families of birds:

Order I. Chicken-like Birds. GALLINÆ

FAMILY 1. GROUSE, PARTRIDGES, etc. *Tetraonidæ*. 9 species.

FAMILY 2. TURKEYS, etc. *Phasianidæ*. 1 species.

*"Bird-life near Boston," by Ralph Hoffmann; "Bird-life near New York City," by Frank M. Chapman; "Bird-life near Philadelphia," by Witmer Stone; "Bird-life near Oberlin, Ohio," by Lynds Jones; "Bird-life near Chicago," by Benjamin T. Gault; "Bird-life in California," by C. A. Keeler and Lyman Belding.

Order II. Pigeons. COLUMBÆ

FAMILY 3. PIGEONS. *Columbidæ*. 8 species.

Order III. Hawks and Owls. RAPTORES

FAMILY 4. AMERICAN VULTURES. *Cathartidæ*. 2 species.

FAMILY 5. FALCONS, HAWKS and EAGLES. *Falconidæ*. 26 species.

FAMILY 6. BARN OWLS. *Strigidæ*. 1 species.

FAMILY 7. HORNED OWLS, HOOT OWLS, etc. *Bubonidæ*. 11 species.

Order IV. Macaws, Parrots, Paroquets, etc. PSITTACE

FAMILY 8. PARROTS and PAROQUETS. *Psittacidæ*. 1 species.

Order V. Cuckoos, Kingfishers, etc. COCCYGES

FAMILY 9. CUCKOOS. *Cuculidæ*. 3 species.

FAMILY 10. KINGFISHERS. *Alcedinidæ*. 1 species.

Order VI. Woodpeckers. PICI

FAMILY 11. WOODPECKERS. *Picidæ*. 11 species.

Order VII. Goatsuckers, Swifts, and Hummingbirds. MACROCHIRES

FAMILY 12. GOATSUCKERS. *Caprimulgidæ*. 3 species.

FAMILY 13. SWIFTS. *Micropodidæ*. 1 species.

FAMILY 14. HUMMINGBIRDS. *Trochilidæ*. 1 species.

Order VIII. Perching Birds. PASSERES

FAMILY 15. FLYCATCHERS. *Tyrannidæ*. 10 species.

FAMILY 16. LARKS. *Alaudidæ*. 1 species.

FAMILY 17. CROWS and JAYS. *Corvidæ*. 6 species.

FAMILY 18. STARLINGS. *Sturnidæ*. 1 species.

FAMILY 19. BLACKBIRDS, ORIOLES, etc. *Icteridæ*. 10 species.

FAMILY 20. SPARROWS, FINCHES, etc. *Fringillidæ*. 44 species.

FAMILY 21. TANAGERS. *Tanagridæ*. 2 species.

FAMILY 22. SWALLOWS. *Hirundinidæ*. 7 species.

FAMILY 23. WAXWINGS. *Ampelidæ*. 2 species.

FAMILY 24. SHRIKES. *Laniidæ*. 2 species.

FAMILY 25. VIREOS. *Vireonidæ*. 8 species.

FAMILY 26. WARBLERS. *Mniotiltidæ*. 39 species.

FAMILY 27. PIPITS and WAGTAILS. *Motacillidæ*. 1 species.

FAMILY 28. WRENS, THRASHERS, etc. *Troglodytidæ*. 9 species.

FAMILY 29. CREEPERS. *Certhiidæ*. 1 species.

FAMILY 30. TITMICE and NUTHATCHES. *Paridæ*. 7 species.

FAMILY 31. KINGLETS and GNATCATCHERS. *Sylviidæ*. 3 species.

FAMILY 32. THRUSHES, BLUEBIRDS, etc. *Turdidæ*. 8 species.

Now, without attempting to make a key to these thirty-two families, let us eliminate those which are known to every one and those which in practice may be recognized at sight.

For example, no difficulty will be experienced in at once referring to its proper family a Partridge, Bob-white, Turkey, Dove or Pigeon, Hawk

or Owl, Parrot, Kingfisher, Woodpecker, Nighthawk or Whippoorwill, Hummingbird or Chimney Swift. Exclusive of the Perching Birds, then, there are left only the Cuckoos. The two Cuckoos found north of Florida are long, slender birds with long tails tipped with white, slightly curved bills, two toes directed forward and two backward, and may be easily distinguished from the birds of other families.



LEAST FLYCATCHER

Life size, to show details of external structure

Nine of the ten orders and fourteen of the thirty-two families of land-birds are thus disposed of, leaving us only with the order, Passeres or Perching Birds, and its eighteen families.

Before outlining, however, the principal characteristics of these families a word should be said on the

Necessity of Careful, Definite Observation.—It may, perhaps, be considered unnecessary to insist on seeing a bird before attempting to name it, but when one receives such descriptions as "a small rather brownish

bird," or even "a little bird that said 'dee, dee,'" it is evident that, at least, some bird students do not appreciate the need of observation! Comparison of a man's description of a bride's costume, as "some sort of white stuff," with a woman's detailed analysis of its satin, tulle and lace will illustrate very well the difference between the right and wrong way of recording a bird's appearance.

There are a few birds, it is true, that possess some striking characteristic mark by which alone they may be known, but in most instances a careful statement of a bird's size, shape of its bill, and its color is an essential to its certain identification. Descriptions of this kind can be made, as a rule, only by the aid of an opera- or field-glass, and only when the bird is before you. Both as a convenience and as a means of directing your attention to the points on which information is desired, it is advisable to have in the field description blank books in which a page may be devoted to each strange bird, somewhat as follows:

Locality..... Date.....
 Haunt
 Length (tip of bill to end of tail).....
 Size and shape of bill
 Length and shape of tail.....
 Color { Forehead
 { Crown
 { Cheeks.....
 { Nape
 { Back.....
 { Rump.....
 { Upper-tail coverts.....
 { Tail.....
 { Wings
 { Throat.....
 { Breast
 { Abdomen
 Voice
 Movements, etc.
 Remarks

It is not, of course, always possible to see a bird with sufficient exactness to enable one to fill out a blank of this nature, but until you can answer the questions this outline calls for *you have not clearly seen the bird*, and must not be surprised, therefore, if both your own efforts and those of some ornithological friend fail to make known its identity. On the other hand, a blank of this kind, properly filled, will usually furnish an

BIRD-LORE has prepared for the use of students a 32-page covered "Field Identification Blank," based on the above outline. It contains a chart of a bird, giving the names of its external parts, and, for ready reference, a printed 6-inch rule. This booklet may be obtained from BIRD-LORE'S printers, the J. Horace McFarland Co., Box 655, Harrisburg, Pa., for ten cents, postage paid.

A GROUP OF FLYCATCHERS



1, Least Flycatcher; 2, Acadian Flycatcher; 3, Wood Pewee; 4, Olive-sided Flycatcher; 5, Crested Flycatcher; 6, Phoebe; 7, Kingbird.
All one-third natural size. From specimens in the American Museum of Natural History

unfailing means of ascertaining the identity of its subject. But as a preliminary to the attempt to name one of the species of passerine land-birds of eastern North America let us, as suggested above, try to learn something of the eighteen families they represent.

ORDER PASSERES

FAMILY I. FLYCATCHERS. *Tyrannidæ*. 10 species.

Range.—A distinctively American family numbering nearly 400 species, which, during the summer, are distributed from Alaska and Labrador to Patagonia, one species being resident in the Galapagos. Of the ten species found east of the Mississippi only one, the Phœbe, occurs during the winter, when it ranges from the Carolinas southward.

Season North of Virginia.—The Phœbe, which has just been spoken of as the only Flycatcher to winter in the eastern United States, reaches the vicinity of New York city the latter part of March and remains until the latter part of October. It is followed in the spring by the Least Flycatcher, which comes the latter part of April, and is preceded in the fall by the Wood Pewee, which remains until October 1. With the exception of the Phœbe, then, Flycatchers are present in the latitude of New York city only from about April 26 to October 1.

Color.—The prevailing color of Flycatchers is olive-green or gray above, whitish or olivaceous below, the sexes usually being alike. There are numerous marked exceptions to this style of coloration among tropical forms, but our ten species conform to the general rule in being olive-green or gray above, white or olivaceous, or in some instances strongly suffused with yellowish below. These colors are distributed in large masses, there being no streaks or spots, the white terminal band on the Kingbird's tail and its concealed orange-red crest being the most striking markings.

Size.—Flycatchers vary in length from about 3 to 16 inches in the Scissor-tail; our species fall between these extremes, the smallest, the Least Flycatcher, averaging slightly less than $5\frac{1}{2}$ inches in length; the largest, the Crested Flycatcher, averaging 9 inches in length. Though half an inch shorter, the Kingbird is probably heavier than the Crested Flycatcher.

External Structure.—The most noticeable and characteristic external feature of Flycatchers is a broad, flat bill, hooked at the tip, and wider than high at the base, where it is more or less thickly beset with outward projecting bristles. The tail is square or slightly notched, the wings rather pointed, the second to the fourth primaries being the longest; the feathers of the crown are somewhat lengthened, forming, when raised, a small crest; the tarsus is rounded behind as well as in front.

Appearance and Habits.—Flycatchers in life sit erect, often with the crest slightly raised, giving to them a certain look of big-headedness which

is eminently characteristic. Their food of insects is captured on the wing by a sudden dart from a perch, to which they usually return. While waiting for their prey the wings are often drooped, and in some species the tail is frequently wagged.

Song.—By the systematist the Flycatchers are spoken of as "songless Passeres." That is, while agreeing in structure with other perching birds in most respects, they differ from them in possessing a less highly developed syrinx or lower larynx—the voice-making organ. Naturally, the birds with the best instrument can and do produce the sweetest, most intricate music, but it does not follow that those which are not so well provided are silent. Song, therefore, in proportion to the development of the musical apparatus is as much a possession of the Flycatchers as it is of the Thrushes. They sing, but they do not sing so well as their talented distant relatives. Indeed, the songs of Flycatchers, reflecting their imperfect instruments, are primitive in character.



What Bird is This?

Field Description.—Length, 5.90 in. Crown streaked chestnut and black, with an ashy medium line; nape grayish; back streaked with rufous, buff, and black, wings and tail more or less rufous; under parts whitish, ashy on the breast, brownish on the sides; abdomen whitish.

NOTE.—Each number of BIRD-LORE will contain a photograph, from specimens in the American Museum of Natural History, of some comparatively little-known bird, or little-known plumage, the name of which will be withheld until the succeeding number of the magazine.

The species figured in October is Nelson's Sparrow.

For Young Observers

My Bird Restaurant

BY EDMUND W. SINNOTT (Aged 13), Bridgewater, Mass.

ONE of the best ways to study birds in winter is to attract them around your home. I did this very successfully last winter by tying bits of suet to the trees near our house and by scattering crumbs upon the ground. I put out a few pieces of meat one morning, and the next day this was discovered by a Downy Woodpecker, and soon the news spread all over birddom that a great free lunch had come to town.

One of my regular guests is the Chickadee. He is around early, and stays near by all day. He is the merriest bird I ever saw, and is always singing—rain, snow or fair weather. He seems to be content with the few pieces that he can find on the ground, if a larger bird is at the piece in the tree. He also delights in the little boxful of tidbits that I have placed among the branches of the tree. He very seldom comes alone, but generally has several of his companions with him.

Another regular guest is the White-breasted Nuthatch. It is very interesting to watch him eat. He will stand with his head downward, bending his body far back, and delivering two or three hard blows. If he breaks a piece off, he will put it in a crevice of the bark where it can be properly supported as he eats it. He has a very harsh, nasal call—*quank*, *quank*—by which he may be recognized when he arrives.

Almost any time when I look from my window, I can see a Downy Woodpecker at some of the meat. There are four of them, two males and two females. I fear that Mr. Woodpecker, in each case, is a hen-pecked husband; for whenever he is at the meat and Mrs. Woodpecker arrives, he always gets out of the way as fast as he can. Both Mr. and Mrs. are very selfish, and will not let any of the other birds come near while they are eating. They can be told apart quite easily, for Mr. Downy has a bright scarlet patch on the back of his head, while in Mrs. it is lacking.

Another guest, who is not quite so regular in his coming, is the Brown Creeper. He is a very dainty little bird, and does not stop and gorge himself as the Woodpeckers do, but takes a delicate mouthful of suet and then goes on, hitching up the trunk in little jerks, investigating every nook and cranny of the bark in his search for insects' eggs and larvæ. He is never still, even when eating some choice tidbit he has found, but is always restless.

These four come almost every day, but besides these I sometimes see English and Tree Sparrows after the crumbs upon the ground. With them sometimes come the beautiful little Juncos, with their slaty gray vests and white shirt-fronts.

I have not yet induced a Hairy Woodpecker or a Flicker, who are both cousins of the Downy, to come to my restaurant, and I do not as yet number among my guests the Bluejay or the Crow. All of these are among our common winter birds, but I suspect that the last two would be unwelcome at the lunch counter; they are so large and domineering that they would be likely to crowd out many of the smaller birds.

I shall probably remain in the hotel business another season, and hope to have other guests, like the Goldfinch in his winter coat, the Red-breasted Nuthatch, Purple Finch, and others of the rarer winter birds.



A WOODPECKER PATRON

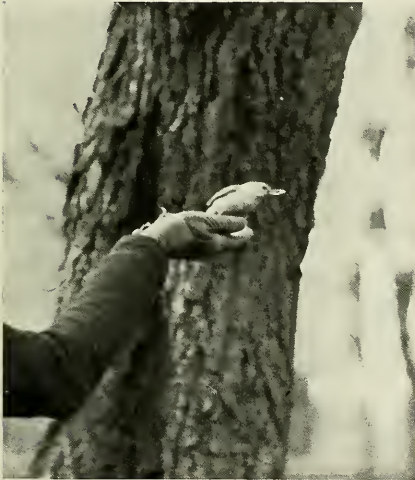
A Prize Offered

BIRD-LORE proposes to offer a series of prizes to Young Observers of fourteen years or younger, who send the best accounts of the habits of certain common birds. The first bird will be the crow. For the best article of between 700 and 800 words on the crow we will give a copy of Seton-Thompson's 'Lives of the Hunted,' or some other book of equal value. The manuscript should be in our hands not later than January 1, 1902.

Notes from Field and Study

Taming a Nuthatch

In my daily walks through Central Park, New York city, last winter I saw two, and sometimes three White-breasted Nuthatches together, presumably always the same individuals. They first drew my attention by flying to the ground for nuts that might be thrown to them. Later I noticed that somewhere in my walk I always met them, one or both making their presence known by the familiar call best expressed in words by



TAMING A NUTHATCH
Photographed from nature

yank-yank-yank. Finally I got the impression that they must know me, perhaps because of my invariable custom of having food with me to throw to the birds. I found that not only would they fly to the ground for the nut but, what was still more clever, catch it on the wing, thereby, perhaps, turning a complete somersault in the endeavor. After a week if I came near enough for the female to reach the nut from the trunk of the tree where she would cling, she would take it from my hand and fly quickly away. At last she gained confidence enough to alight on my hand and after that whenever I went

to the park that bird, and its mate also, for I think they share the feast, found and greeted me. I am quite sure she enjoyed the performance as much as I did, for she no longer seemed in such a hurry to get away, but stayed for a moment. Then she would fly to some tree to deposit the nut in a crevice of the bark either to eat immediately or to conceal it, as do the squirrels, for future use. I suspect the Downy Woodpeckers knew the secret, for I have frequently seen two, and sometimes three, following the Nuthatches, searching the trees where the food had been hidden. I have wished so many times I could know the bird at sight as quickly as she does me, for I was always the one to be called and when she saw me coming toward her she would come to the nearest tree and run down the trunk head foremost ready to fly to my hand as soon as I held it out to her.—E. M. MEAD, *New York City*.

A Ptarmigan's Nest

(See Frontispiece)

The photograph of the sitting White-tailed Ptarmigan shown in the frontispiece of this number of BIRD-LORE was taken June 19, 1901, just above timber line on a spur of Mt. Evans, in Clear Creek county, Colorado.

The nest was discovered by accident after searching for one for a month at a time every year for nine years, although I frequently found nests after the young were hatched and many broods of young birds were seen. This nest was marked and then located three steps and one foot from a given spot, but when I returned with my camera I took the three steps and looked a number of minutes for the bird without seeing it. I was then on the point of stepping over it, when the eye of the bird was seen. The bird made no attempt to leave the nest but relied entirely on her wonderfully protective colors to escape observation, and nine exposures were made without her leaving the nest.—EVAN LEWIS, *Idaho Springs, Colorado*.

Nesting of Crossbills

[Sir James M. Le Moine, of Quebec, well known for his works on Canadian birds, sends us the following interesting note by a personal friend on the breeding of Crossbills in March.—ED.]

"Quebec, 25th March, 1901.

"DEAR SIR JAMES: About ten days ago I happened to be with a friend in the woods, in the vicinity of the Grand Lac, Bastonnais. In the course of one trip we had to visit several lumber camps and were told by choppers that they had during the winter, in February and March, cut down many spruce and fir trees containing nests full of young birds. We refused to believe the story unless we saw the 'young birds' with our own eyes.

"At one of the camps we found a man who told us that he would endeavor to find a nest that he had thrown aside a few days before which contained three young birds. He was away for a short time and returned with one of the young. It was only partially fledged and had been hatched. I should say, about ten days previously. The young bird was not a Pine Grosbeak, but a Crossbill, of which there were thousands all over that section of the country. The cock birds were in their courting dress—little balls of scarlet—and singing all day as in early June. The nests are made of moss, about the size of a football, walls about two inches thick and a small hole for the happy pair to enter their snug little home.

Sincerely yours,

"E. JOLY DE LOTBINIERE."

Nineteenth Annual Congress of the American Ornithologists' Union

The Nineteenth Annual Congress of the A. O. U. was held at the American Museum of Natural History November 11-14, 1901. The attendance was large, the program, which will be found on the following page of BIRD-LORE, was interesting, and the meeting, like all A. O. U. meetings, was thoroughly enjoyable.

At the business meeting of Active Members, held on the evening of November 11, the following officers were reelected:

President, C. Hart Merriam; Vice-Pres-

idents, Charles B. Cory, C. F. Batchelder; Secretary, John H. Sage; Treasurer, William Dutcher. Members of the Council: Frank M. Chapman, Ruthven Deane, Jonathan Dwight, Jr., A. K. Fisher, E. W. Nelson, Thomas G. Roberts, Witmer Stone.

The by-laws of the Union were so amended that the class heretofore known as Active Members, the number of which is restricted to fifty, became Fellows, and a new class of membership, known as Members, intermediate between Fellows and Associates, and restricted to seventy-five in number, was established. The classes of memberships composing the Union are now, therefore, as follows: Fellows, who must be residents of America, restricted to fifty in number; Honorary Fellows, usually residents of a foreign country, restricted to twenty-five in number; Corresponding Fellows, restricted to one hundred in number; Members, restricted to seventy-five in number; Associates, membership unlimited in number.

The following Fellows were elected: Outram Bangs, Boston, Mass.; F. E. L. Beal, Washington, D. C.; L. B. Bishop, New Haven, Conn.; Joseph Grinnell, Palo Alto, Cal.; T. S. Palmer, Washington, D. C., leaving only one vacancy, there being now forty-nine Fellows.

Fifty-five Members were elected, leaving twenty vacancies in this new class. Their names and addresses are as follows:

Francis H. Allen, Boston, Mass.; H. P. Attwater, Houston, Texas; Mrs. Florence Merriam Bailey, Washington, D. C.; Vernon Bailey, Washington, D. C.; William L. Baily, Philadelphia, Pa.; Chester Barlow, Santa Clara, Cal.; Prof. George E. Beyer, New Orleans, La.; Frank Bond, Cheyenne, Wyoming; Clement S. Brimley, Raleigh, N. C.; Herbert Brown, Yuma, Arizona; Prof. Lawrence Bruner, Lincoln, Neb.; William Alanson Bryan, Honolulu, H. Ids.; Frank L. Burns, Berwyn, Pa.; Amos W. Butler, Indianapolis, Indiana; George K. Cherrie, Brooklyn, N. Y.; John N. Clark, Saybrook, Conn.; Frank S. Daggett, Pasadena, Cal.; Walter Deane, Cambridge, Mass.; Prof. Barton W. Everman, Washington, D. C.; John Fannin,

Victoria, B. C.; Walter Kenrick Fisher, Stanford University, Cal.; James H. Fleming, Toronto, Can.; Louis Agassiz Fuertes, Ithaca, N. Y.; Manly Hardy, Brewer, Maine; Ralph Hoffmann, Belmont, Mass.; William Augustus Jeffries, Boston, Mass.; Rev. Herbert K. Job, Kent, Connecticut; Lynds Jones, Oberlin, Ohio; Prof. David Starr Jordan, Stanford University, Cal.; Sylvester D. Judd, Washington, D. C.; George H. Mackay, Nantucket, Mass.; John W. Mailliard, San Francisco, Cal.; Joseph Mailliard, San Geronimo, Cal.; Richard C. McGregor, Palo Alto, Cal.; Gerrit Smith Miller, Jr., Washington, D. C.; Mrs. Olive Thorne Miller, Brooklyn, N. Y.; John Murdoch, Roxbury, Mass.; Harry C. Oberholser, Washington, D. C.; Wilfred Hudson Osgood, Washington, D. C.; Charles J. Pennock, Kennett Square, Pa.; Edward A. Preble, Washington, D. C.; William W. Price, Alta, Cal.; Dr. William L. Ralph, Washington, D. C.; Samuel N. Rhoads, Audubon, N. J.; Dr. William C. Rives, Washington, D. C.; Capt. Wirt Robinson, U. S. A., West Point, N. Y.; Jewell D. Sornborger, Cambridge, Mass.; Frank Stephens, San Diego, Cal.; Abbott H. Thayer, Scarborough, N. Y.; Ernest Thompson Seton, New York city; W. E. Clyde Todd, Beaver, Pa.; Bradford Torrey, Wellesley Hills, Mass.; Charles H. Townsend, Washington, D. C.; Dr. Spencer Trotter, Swarthmore, Pa.; Mrs. Mabel Osgood Wright, Fairfield, Conn. Eighty-three Associates were elected.

Program of the Nineteenth Congress of the American Ornithologists' Union

A list of the papers presented before the Nineteenth Congress of the American Ornithologists' Union is appended. The reports of the committee on bird protection and of the expenditure of the Thayer Fund, the number and excellence of the lantern slides exhibited, particularly those shown by Mr. Job, were among the features of the program.

The Present Outlook for Stability in Nomenclature. J. A. Allen. (15 min.)

The Plumages of the American Goldfinch (*Spinus tristis*). Jonathan Dwight, Jr. (20 min.)

Routes of Bird Migration across the Gulf of Mexico. W. W. Cooke.

On Methods in Museum Bird Exhibits. Frank M. Chapman. (15 min.)

Ornithological Notes from Northern New Hampshire. John N. Clark. (20 min.)

Some Impressions of Texas Birds. Louis Agassiz Fuertes and H. C. Oberholser. (50 min.)

The White-winged Crossbill in Captivity. James H. Hill. (10 min.)

The American and European Herring Gulls. J. A. Allen. (10 min.)

Auduboniana. Ruthven Deane. (15 min.)

The Molts and Plumages of the North American Ducks (*Anatidae*). Jonathan Dwight, Jr. (30 min.)

Seven New Birds from the United States. E. A. Mearns. (20 min.)

A Naturalist in Yucatan. Illustrated by lantern slides. E. W. Nelson. (45 min.)

Photography in North Dakota Bird Colonies, *et cetera*. Illustrated by lantern slides. Herbert K. Job. (45 min.)

A Reconnaissance in Manitoba and the Northwest. Illustrated by lantern slides. Frank M. Chapman. (45 min.)

Are Hummingbirds Cypseloid or Caprimulgoid? Hubert Lyman Clark. (5 min.)

List of Birds of Wequetonsing, Mich. Otto Widmann. (10 min.)

Notes on the Ornithological Observations of Peter Kalm. Spencer Trotter. (15 min.)

Report of the Committee of the Protection of North American Birds. Witmer Stone. (15 min.)

Results Obtained Under the Thayer Fund. William Dutcher. (20 min.)

National Bird Protection—Its Opportunities and Limitations. T. S. Palmer. (25 min.)

Gulls of the Maine Coast, and Miscellaneous Notes. Illustrated by lantern slides. Wm. Dutcher and Wm. L. Baily. (60 min.)

Some Results of Bird Protection. Illustrated by lantern slides. Frank M. Chapman. (15 min.)

Book News and Reviews

BIRDS OF PRINCETON, NEW JERSEY AND VICINITY. By WILLIAM ARTHUR BABSON. Bull. Bird Club Princeton University. Vol. I, No. I. Sept., 1901. 8vo. 82 pages. Price, paper, \$1; cloth, \$1.25.

This list is based mainly on the author's observations from 1897-1900, while a student at Princeton University, and on the notes of W. E. D. Scott and A. H. Phillips, both well known for their ornithological work about Princeton. It enumerates 230 species, which are classified according to the manner of their occurrence as follows: Permanent Residents, 34; Summer Residents, 70; Summer Visitants, 7; Winter Residents, 15; Winter Visitants, 16; Regular Transients, 65; Irregular, 17; Accidental Visitants, 12.

The annotations abound in interesting records, and include what is highly desirable, but too often omitted from local lists, definite migration and nesting dates. These make the list of practical value to all working ornithologists in the eastern United States.

The strong Carolinian element in the Princeton avifauna is attested by the regular occurrence of the Turkey Buzzard, Barn Owl, Acadian Flycatcher, Fish Crow, Cardinal, Tufted Titmouse, Carolina Chickadee, and Blue-gray Gnatcatcher, and it is therefore somewhat surprising to learn that other Carolinian birds (e.g., Kentucky Warbler and Hooded Warbler) which are common in the lower Hudson Valley as far north, at least, as Sing Sing, are exceedingly rare and not known to breed at Princeton. Possibly local conditions may account for the absence of these birds from a point well within their range, and the case illustrates very clearly the need of a large number of observations from even a limited area in determining exactly the distribution of birds.

The list is well printed, and the Princeton Bird Club is to be congratulated on the attractiveness and worth of this its first publication, which at once takes its place among standard faunal literature.—F. M. C.

THE RELATION OF SPARROWS TO AGRICULTURE. By SYLVESTER D. JUDD. Bull. No. 15, Division of Biological Survey, U. S. Dept. of Agriculture. 98 pages, 4 plates, 19 text cuts.

This bulletin presents not only the known facts in regard to the food habits of Sparrows, but may also be taken as an admirable illustration of the most advanced methods of research in economic ornithology, in which a study of the bird's food in nature is quite as important as the examination of its stomach contents in the laboratory. As Dr. Judd well says: "Although the examination of a bird's stomach shows just what the bird has eaten, yet if this alone be depended upon, information is still wanting as to what has been refused or what preferences exist, since the different elements of the food supply in the locality where the stomach was collected are not taken into account. If, however, this lacking information be obtained by means of field observation, and used in connection with stomach examination, the examiner will be able to make his analysis with the fullest degree of accuracy.

The economic value of Sparrows lies chiefly in their destructiveness to weed seeds. Dr. Judd remarks: "In a garden, within two months, they will sometimes destroy 90 per cent of such weeds as pigeon-grass and ragweed. . . . Weed seed forms more than half of their food for the entire year, and during the colder half of the year it constitutes about four-fifths of the food of many species." This statement is supported by the statistics of stomach examination and field study, and our belief in the importance of Sparrows to our agricultural interests is thus placed on sound scientific basis.—F. M. C.

CALIFORNIA WATER BIRDS.—No. V. VICINITY OF MONTEREY IN MAY AND EARLY JUNE. By LEVERETT M. LOOMIS. Proc. Calif. Acad. Sciences, Third Series, II, No. 5, Dec. 24, 1900. Pages 349-363.

Mr. Loomis here gives us his fifth paper on the migration of California water-birds.

As before, his treatment is both objective and subjective, his notes on the birds observed being accompanied by a discussion of 'Bird Waves,' 'Pauses in Migration,' 'Retrograde Migration,' 'Overflow from Southern Breeding Grounds,' 'Cause of Return Migration.'

We have before commented on Mr. Loomis' theories in regard to the underlying causes of migration* and will here only add that as the expressions of an ornithologist of wide field experience his views are worthy of consideration by all students of migration.—F. M. C.

A LIST OF THE LAND BIRDS OF SANTA CRUZ COUNTY, CALIFORNIA. By RICHARD MCGREGOR. Pacific Coast Avifauna No. 2. Cooper Ornithological Club, Santa Clara, Calif. May 15, 1901. Royal 8vo. 22 pages. Price, 25 cents.

This list includes all the previously published information in regard to the manner of occurrence of the birds of the region treated and as well as some additional material, and while the author trusts that it is "a fairly complete list of the land birds of Santa Cruz county," of which 139 species and subspecies are included, he hopes that it may "form a foundation for a future and more complete exposition of the Santa Cruz avifauna." Apparently much remains to be learned of the times of migration and nesting of Santa Cruz birds, and the list, therefore, of this kind, lacks that definiteness so desirable in publications. It, however, is of evident value in determining the complex faunal characteristics of the region, which are well outlined in an introduction by Walter K. Fisher.—F. M. C.

The Ornithological Magazines

THE AUK.—'An Ornithological Mystery' from the pen of Wm. Brewster, opens the October number. Occasionally since 1889, a bird voice, for a season, has haunted certain marshes of eastern Massachusetts and mocked all efforts of Mr. Brewster and Mr. Faxon to run to earth the owner;—*vox et præterea nihil*. His notes have brought upon him the suggestive name of

'Kicker,' but evidently he does not court the publicity that other 'kickers' seek. Several lists follow: 'A Preliminary List of the Summer Birds of Mt. Mansfield, Vermont,' by A. H. Howell; 'On a Collection of Birds made * * * at * * * Chiriqui,' by O. Bangs, several of them new, and 'A List of Hawaiian Birds * * *.' Will somebody instance a case where a preliminary list was ever followed by a final one from the same author, and is there no escape from the tiresome, initial 'On' that still mars so many titles? A. C. Bent describes the 'Nesting Habits of the Anatidae of North Dakota,' illustrating his paper with several good half-tones, and J. A. Farley presents a study of the Alder Flycatcher in eastern Massachusetts; F. J. Birtwell throws light on 'The Nesting Habits of the Evening Grosbeak,' having discovered and photographed in New Mexico two nests of this species. 'A New Classification of Birds,' based on pterylosis, is attempted by H. L. Clark. Considering how imperfect is the present knowledge of the pterylosis of even the most familiar species, the attempt is somewhat ambitious, although a step forward in a direction now much neglected. Various notes and reviews complete the number. The statement by Mrs. Bates under 'Maine Bird Notes,' that she heard Martins at night should be corroborated, for it is easy to be mistaken in the calls that come from the overhead armies of migrants that move as a whole so silently and so swiftly to other climes.—J. D., Jr.

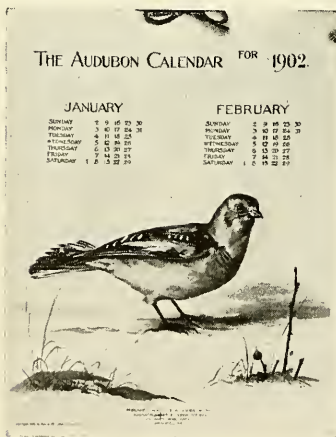
THE CONDOR.—'The Condor' for September and October contains as usual numerous field observations made by members of the Cooper Ornithological Club. Barlow contributes an interesting account of the Mountain Chickadee, and Cohen recounts his experience with Barn Owls in captivity. Under the title of 'Summer Observations in the Sierras,' Daggett mentions the more conspicuous birds observed during a trip from Pasadena, California, by way of Fort Tejon and Visalia, to the North Fork of the Kaweah, King's River Cañon and Kearsarge Pass near Mt. Brewer. The paper shows very clearly the great diversity

*BIRD-LORE II, 1900, 92.

of bird life found in passing from the hot plains of southern California to the alpine conditions of the High Sierra at an altitude of 11,000 feet. The nesting habits of the Desert Sparrow Hawk are described by Rising, and those of the Western Yellowthroat by Leland. An annotated list of 168 species of birds found at Paicines, California, is given by J. and J. W. Mailliard, and short notes on the occurrence and habits of interesting species observed in various parts of the state are published by other contributors. The Cooper Club now has 160 members—probably a larger list of active workers than is enrolled in any other state. The combined labors of so many observers should result in a considerable addition to our knowledge of California birds in the near future.—T. S. P.

Book News

The Audubon Calendar for 1902, just issued by the Massachusetts Audubon Society, a miniature cut of one page of which is here reproduced, contains admirably colored life-sized figures of the Snowflake, Fox Sparrow, Baltimore Oriole, Wood Thrush, Meadowlark, and male and female



Red Crossbills, with descriptive text from Minot's 'Land-Birds and Game-Birds of New England.' It may be procured of MISS HARRIET E. RICHARDS, *Secretary, care Boston Society of Natural History, Boston, Mass.* Price, 50 cents.

In 'Science' for Oct. 4, 1901, Mr. W. E. D. Scott makes an important contribution to the subject of the heredity of song in birds in an interesting account of his study of several Baltimore Orioles. He shows that two birds of this species "isolated from their own kind and from all birds, but with a strong inherited tendency to sing," originated a song of their own quite unlike the normal Baltimore Oriole's song; and, further, that four more Baltimore Orioles "isolated from wild representatives of their own kind, and associated with the two who had invented the new song, learned it from them and never sang in any other way."

The bird photographer who palms off pictures of mounted birds placed amid natural surroundings as "photographs from life" still thrives and, to our surprise, occasionally succeeds in disposing of his wares to the editors of ornithological journals.

'By the Wayside,' the bright little monthly published by the Wisconsin and Illinois Audubon Societies at 635 State Street, Madison, Wisconsin, at the small subscription price of twenty cents per annum, reflects the activity of these societies in educational matters and should receive the support of every one interested in this, the most important phase of Audubon work.

That a book on nature would outsell the most popular novel of the season, would certainly not have been predicted by the most sanguine nature-lover, and still we find the publishers of Mr. Seton-Thompson's 'Lives of the Hunted' announcing the seventieth thousand copy of this work within the first month after its publication.

We may add, that while the author of this book has recently resumed his legal name of Seton, he will continue to use Seton-Thompson as a pen name.

BIRD-LORE has pleasure in stating that the reviews of ornithological magazines, which have been so interesting a feature of the volume just closing, will be continued in 1902, Dr. Dwight reviewing 'The Auk,' Dr. Fisher, 'The Osprey' and 'Wilson Bulletin,' and Dr. Palmer, 'The Condor.'

Bird-Lore

A Bi-monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

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

No small part of the pleasure found in the management of BIRD-LORE comes through the large number of letters received from the magazine's readers. Many of the letters are written solely to express their writers' approval of BIRD-LORE, and they are very welcome. Others contain requests for information or advice, and, indicating an active interest in bird study, are equally welcome. It is always a privilege to render assistance where it is desired. Greatly to our regret, however, the margin of time left from days fully occupied with professional duties is far too small to enable us to answer promptly and adequately the communications of our correspondents, and we, therefore, beg their kind indulgence when our replies to their queries seem unexcusably brief. We sincerely wish it were possible to give each letter the attention it deserves.

1901

THE past year has witnessed a continuance of the steadily increasing interest in the study of birds and, as heretofore, we may mention briefly the more important published results of the year's work relating to American birds.

Among scientific and technical publica-

tions of first importance is the first of the eight volumes of Mr. Ridgway's great work on the birds of North America north of the Isthmus of Panama. This volume treats of the Finches and will be reviewed in a subsequent issue of BIRD-LORE. The third volume of Bowlder Sharpe's 'Hand List of the Birds of the World' will be of service to working ornithologists of all countries; and of especial interest to American students is the Tenth Supplement of the A. O. U. Check List, with its welcome antidote for the disease of feather splitting, from which American ornithology has suffered of late. Dr. R. M. Strong's 'Quantitative Study of Variation' might also be administered in large doses with the hope that due consideration of his careful discriminative methods would save the pages of our scientific publications from much undigested material.

In the line of original investigation Hubert Lyman Clark's Studies in Pterylography and Dr. J. Dwight's continued work on the molt of birds should be noticed, and although of a very different nature, Professor Herrick's 'Home Life of Birds' with its close observations of the life of the nest, should be here included.

A feature of the year's publications is the number and excellence of local bird lists which has appeared, not based on a few months' observation, but adequately representing the character of the bird-life of the region of which they treat. Among them we may note Babson's 'Birds of Princeton,' Eaton's 'Birds of Western New York,' Embody's 'Birds of Madison County, N. Y.,' Morris' 'Birds of Springfield, Mass.,' Howe and Allen's 'Birds of Massachusetts,' McGregor's 'Birds of Santa Cruz County, Calif.,' and Grinnell's 'Birds of the Kotzebue Sound Region,' the latter containing much new information.

Economic ornithology is represented by Judd's 'Sparrows in Relation to Agriculture' and for the teacher and general reader there are Mrs. Eckstorm's 'The Bird Book' and 'The Woodpeckers,' Mrs. Miller's 'Second Book of Birds,' Babcock's 'Bird-Day and How to Prepare for It,' Torrey's 'Everyday Birds,' Hoffmann's 'Bird Por-

traits,' Pearson's 'Stories from Bird-Life,' and a new cheap colored edition of 'Bird-Life.'

Unexampled activity has been shown by the Protection Committee of the A. O. U. and by the Audubon Societies in securing desirable legislation for the better protection of birds, new laws being passed, or old laws amended, in Maine, New Hampshire, Massachusetts, Connecticut, New York, New Jersey, Delaware, District of Columbia, Florida, Wisconsin and Wyoming. Mr. Dutcher, in expending the Thayer Fund, has extended the field covered by wardens and it may be said with certainty that at no time since they were first subjected to the attack of millinery collectors, have the birds of our coast been so well protected.

Four new Audubon Societies have been organized, bringing the total number up to twenty-five, and the influence of these societies is constantly increasing, as, through the use of circulating lectures, libraries and other means, they become important factors in educating the people to realize the beauty and value of bird-life.

In the schools bird study continues to claim increasing attention and all along the line, therefore, where one be systematist, ecologist, economist, protectionist, or educator, there is every reason to be more than satisfied with the year's progress and promise.

Bird-Lore for 1902

The following outline of BIRD-LORE's plans for the coming year is submitted as an evidence of our continued desire not only to interest and instruct students of birds, but to arouse in them a desire for original investigation by suggesting lines of work and by keeping them in touch with the results of the work of others.

In the death of Elliott Coues ornithology lost a leader whose place will never be filled but the story of whose achievements will ever prove a stimulus to all earnest workers. In the next number of BIRD-LORE D. G. Elliot and Capt. C. A. Curtis, the first a life-long friend, the second a messmate of Dr. Coues at Fort Whipple, Arizona,

his first post in the west, will write of their recollections of Dr. Coues at the time when, as a young man of twenty-one, he entered the army, and their accounts will be accompanied by a before unpublished photograph of Dr. Coues taken at this period and by extracts from the journal of his western trip.

The general reader will also be interested in Richard Kearton's 'The English Sparrow in England,' F. A. Lucas' 'Weapons of Birds,' Fannie Hardy Eckstorm's 'In the Maine Woods,' and William Brewster's 'Bird Voices of New England Swamps and Marshes.'

The last named paper will be of practical value to field students, to whom Dr. J. Dwight's 'The Molt of Birds,' Ernest Seton-Thompson's 'The Art of Journal Keeping,' and a series of papers on the families of Passerine birds will appeal.

Students will also be helped, it is hoped, by a series of papers on 'Bird Clubs in America,' telling of their organization and methods with the object of encouraging the formation of similar societies elsewhere. F. H. Allen will write of the Nuttall Club in the next issue of BIRD-LORE, and his article will be followed by papers on the Delaware Valley Club by S. N. Rhoads, 'The Princeton Club,' by W. E. D. Scott, 'The Spencer F. Baird Club,' by Mrs. Julia Stockton Robins, and these by others to be announced later.

The bird photographer will find that Francis H. Herrick's 'The Chebec's First Brood' contains practical suggestions on the study of nest-life from a tent, while A. Radclyffe Dugmore will describe his method of becoming intimately acquainted with wild birds, and there will be some truly remarkable moonlight pictures of roosting Crows by C. D. Kellogg.

In concluding this outline, we may add that BIRD-LORE is offered at least ten times as much material as it can publish. Many desirable contributions are rejected solely for lack of space, and we sincerely hope that circumstances over which our subscribers have control will so adjust themselves that 1902 will witness a further increase in the magazine's size.

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 (President of the Audubon Society of the State of Connecticut), Fairfield, Conn., to whom all communications relating to the work of the Audubon and other Bird Protective Societies should be addressed. Reports, etc., designed for this department should be sent at least one month prior to the date of publication.

DIRECTORY OF STATE AUDUBON SOCIETIES

With names and addresses of their Secretaries

New Hampshire.....	MRS. F. W. BATCHELDER, Manchester.
Vermont.....	MRS. FLETCHER K. BARROWS, Brattleboro.
Massachusetts.....	MISS HARRIET E. RICHARDS, care Boston Society of Natural History, Boston.
Rhode Island.....	MRS. H. T. GRANT, JR., 187 Bowen street, Providence.
Connecticut.....	MRS. WILLIAM BROWN GLOVER, Fairfield.
New York.....	MISS EMMA H. LOCKWOOD, 243 West Seventy-fifth street, New York City.
New Jersey.....	MISS ANNA HAVILAND, 53 Sandford ave., Plainfield, N. J.
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Delaware.....	MRS. WM. S. HILLES, Delamore Place, Wilmington.
Maryland.....	MISS ANNE WESTON WHITNEY, 715 St. Paul street, Baltimore.
District of Columbia.....	MRS. JOHN DEWHURST PATTEN, 3033 P street, Washington.
Virginia.....	MRS. FREDERICK E. TOWN, Glencarlynn.
South Carolina.....	MISS S. A. SMYTH, Legare street, Charleston.
Florida.....	MRS. I. VANDERPOOL, Maitland.
Missouri.....	AUGUST REESE, 2516 North Fourteenth street, St. Louis.
Ohio.....	MRS. D. Z. MCCLELLAND, 5265 Eastern ave., Cincinnati.
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Tennessee.....	MRS. C. C. CONNER, Ripley.
California.....	MRS. GEORGE S. GAY, Redlands.

Concerning the Conference

The Audubon Conferences up to date may be compared to peach trees, which, though they may be of vigorous constitution and full of promise, do not give fruit for several years after their planting.

The second conference, held on the morning of the 14th of November, was well attended, and the luncheon which followed gave the delegates an opportunity for an hour of charming social intercourse with the leading lights of ornithology, but the main end of the meeting, the discussion of methods and the interchange of experiences, was not attained, the single session having been absorbed in discussing the technicalities of the organization of a National or Advisory Committee of the Audubon Societies.

Not that there was needless discussion upon this subject, for every link tending to

bind the state societies must be most deliberately forged and tested, simply the annual conference of bodies of the importance to which the Audubon Societies have grown cannot be scrambled over in a couple of hours, with the warning "lack of time" staring would-be questioners in the face.

Two sessions, with the time systematically allotted, might produce the desired results,—the single session was merely an aggravation.

Dr. Palmer alluded to the educational side of bird protection, and could an experience meeting on these lines have followed, it would have been both interesting and instructive. As it was, not so much was learned of the workings of any one society as can be found any month in the columns of BIRD-LORE.

In this connection the editor would like to emphasize the fact that, with proper coöperation, the Audubon Department of this

magazine may easily become of more value to the work than any National Committee or Advisory Council can hope to be, and for two reasons:

1. Questions and answers put upon paper are not forgotten as they may be in the heat of debate.

2. In a country of the size of ours it is easier to travel on paper than in person.

If, during the coming year, not only the secretaries but any member of the executive committees of the societies will write freely of their needs and experiences to this department, always remembering to send their communications during the months of December, February, April, June, August or October, so that the material could be properly digested for the next issue, great results can be obtained.

This material need not be in the form of set reports for actual publication, but in letters or tabulated lists of questions and a dozen other ways which will tell of needs and stimulate the interchange of ideas.

The Societies contributing their reports, or, in fact, any news to BIRD-LORE, are in the minority, some will not even answer if asked a direct question by mail. If this is the case how much better will an Advisory Committee fare?

Wake up, fellow workers; say your say all in good time and season, keeping it well in mind that it takes time to print an illustrated magazine and that all material must be had thirty days before the publishing of each issue.

Many of our secretaries keep in touch by private correspondence, but the same information made public reaches far and wide. Only by such intercourse as this can the general trend of the Societies be gauged and the vital topics stimulated to fruiting, so that the next convention may be something besides preliminary leaves.—M. O. W.

Results of the Conference

At the first Audubon Conference, held in Cambridge, Mass., in November, 1900, it was moved that a committee be appointed, to report at the next Conference, on the desirability of some form of coöperation

between the various Societies when, for any reason, it seemed desirable for them to join hands in promoting the cause of bird protection. The report of this committee as amended and unanimously adopted at the second conference is as follows:

REPORT OF THE AUDUBON CONFERENCE COMMITTEE

1. That the several societies retain their individuality, that is, that they be not merged into a national organization.

2. But in view of the increased efficiency that would always result from some form of union, which would admit of concerted action, it is recommended that

3. The several societies shall each appoint one member of a committee to be known as the National Committee of the Audubon Societies of America.

4. That the members of this committee may be empowered to represent the societies whenever concerted action on the part of the societies be deemed by the Committee expedient.

5. That an Annual Conference of the Societies be held, and that this Committee be authorized to arrange for the time and place of the Conference.

6. That this Committee draft its own rules and regulations.

(Signed) H. C. BUMPUS,
FRANK M. CHAPMAN,
RALPH HOFFMANN.

A list of the delegates present, with the societies they represented, is appended:

Vermont, Elizabeth B. Davenport, Anna B. Phelps; Massachusetts, William Brewster, Harriet E. Richards, Reginald C. Robbins; Rhode Island, H. C. Bumpus, Annie M. Grant; Connecticut, Mabel Osgood Wright, Helen W. Glover, Delia T. Audubon Tyler, Katharine A. Wilcox, Dora R. Wheeler, Grace R. Moody, Mrs. Walter Smith, Willard G. Van Name; New York, Emma H. Lockwood, Lilian G. Cook, Olive Thorne Miller, May Riley Smith, W. T. Hornaday, William Dutcher, J. A. Allen, Frank M. Chapman; New Jersey, Julia J. Noll, D. W. Miller; Pennsylvania, Julia Stockton Robins, E. L.

Tweedy, Witmer Stone, W. L. Baily; Maryland, Anne Weston Whitney; District of Columbia, H. C. Oberholser, T. S. Palmer; Florida, Mrs. Kingsmill Marrs, W. Wilson - Barker; Illinois, Ruthven Deane.

Mr. Frank M. Chapman was chosen as chairman, Mrs. H. T. Grant, as secretary. The details of the formation of the National Committee were left in the hands of the secretary.

Reports of Societies

NEW SOCIETIES

We take great pleasure in calling attention to the three new societies added to the list in this issue.

The Audubon Society of Glencarlyn, Virginia, was organized on June 3, 1901, with John B. Henderson, Jr., as president and Mrs. Frederick E. Town as secretary; the Society of the state of Missouri was organized on June 14, with Wm. J. Blakely as president and August Reese as secretary, and was duly incorporated on August 14, while the Society of the state of Vermont followed on September 2, with Mrs. Wm. C. Horton, of Brattleboro, as president and Mrs. Fletcher K. Barrows and Miss Emma Gregg as secretaries.

The Missouri Society has issued a concise pamphlet of twenty pages giving its list of officers, by-laws, articles of incorporation and a presentation of facts and motives, that is well worthy of imitation by other societies, so satisfactorily does it answer the questions asked of societies concerning their scope and practical workings.

THE MASSACHUSETTS SOCIETY

The Junior Prize Committee of the Massachusetts Audubon Society set a difficult task for the children when they offered prizes for the best original drawing of a Bobolink in full summer plumage, "drawings to be made from stuffed birds or life." All over the state the children were early on the lookout for Bobolinks, but as the bird is rather locally distributed many had to report that they "had never seen a Bobo-

link and could not find one in their meadows." Others were far distant from any museum possessing the coveted bird, so of necessity some of the would-be competitors were debarred from the contest. Twelve drawings were received, in some cases accompanied by charming little letters telling the story of the drawing. The committee finally awarded the prizes as follows: The first, twenty dollars, to Doris A. Hatfield, of Canton Junction; second, fifteen dollars, to Howard M. Turner, of Cambridge; third, ten dollars, to William H. Foster, of Andover; fourth, five dollars, to Abby Christenson, of Brookline.

In the early summer the Society sent out copies of a "List of Massachusetts Birds," requesting their return with the names checked of the birds the observer had seen during the year. It is not time for returns, but quite an interest is reported in the lists; additional copies for use, beginning any time, may be had of the secretary.

The calendar for 1902, with six new original drawings in color and descriptive text, is for sale at the bookstores and by the secretary. Price 50 cents.

A "List of Bird Books" is ready for free distribution.

A second traveling lecture with lantern slides is in preparation, also, a number of traveling libraries; the latter will probably be circulated by the Woman's Educational Association and loaned to schools and libraries on request.

The Society has recently presented to the Library Art Club two sets of the Audubon Bird Charts and the Bird Plates for circulation by the Club.

The sale of the charts is very good and the Society is growing. There are now 4,151 members, but it is still the fashion to wear feathers, and violators of the bird laws still tread the forest path.

HARRIET E. RICHARDS, *Secretary*.

AUDUBON SOCIETY OF GLENCARLYN, VIRGINIA

The Audubon Society of Glencarlyn, Virginia, which has the honor to be the pioneer Society of the state, was organized June 3, 1901, with the following officers:

President, Mr. John B. Henderson, Jr., Washington, D. C.; secretary, Mrs. Fredrick E. Town, Glencarlynn, Virginia.

At a subsequent meeting the following honorary vice-presidents were elected:

Gen. S. S. Burdett, Glencarlynn, Virginia; Maj. Wm. M. King, Glencarlynn, Virginia; Mr. Paul Bartsch, Washington, D. C.; Dr. T. S. Palmer, Washington, D. C.

Also, an executive committee was formed consisting of Mr. Wm. C. Pennwitt, Chairman, Dr. Wm. M. Backus, Mr. Charles H. Lane, Miss Mary L. King, Mrs. James Plant and Miss E. V. Pennwitt, all of Glencarlynn, Virginia. Miss Pennwitt was appointed librarian.

In addition a committee has been appointed to investigate the present status of the laws of Virginia relating to the protection of birds.

The Glencarlynn Society may be said to be the outgrowth of a meeting of the Washington Society, held in the village by invitation of the citizens, and is indebted to the parent Society for a number of valuable donations to its library.

The new Society, it is hoped, will be a thriving one, as the members are most enthusiastic, and the environment of the village very favorable to bird-life.

One field meeting was held under the leadership of Mr. Bartsch.

JULIET B. G. TOWN, *Secretary*.

Florida Audubon Society

Owing to the fact that many of the officers and members of the Executive Committee of the Florida Audubon Society are winter residents of the state, meetings are not held during the summer months, but the secretary takes charge of the business in correspondence with members of the Executive Committee at the north. In Orange county the School Committee have agreed that once a week during the school term half-hour bird-talks shall be given in the schools, the Audubon Society giving one hundred "Hints to Bird Study," published by the Massachusetts Society as a text-book for teachers. They also have Bulletin 54, sent

by Dr. Palmer, while the Superintendent of Schools is to aid us by giving talks on birds. A bird chart of distinctly southern birds would be of the greatest help and inspire interest in the children. The American Ornithologists' Union sent us two hundred printed posters of the laws of 1901 for bird protection; many of these were posted in the various towns near Maitland, while some were sent to Audubon members at West Palm Beach. Many more will be distributed by our various officers throughout the state early in December, before the tide of travel begins. A parcel was sent to the west coast this autumn, for in spite of all warnings in September the rookery at Bird Key was destroyed. Two hundred posters have been sent to the Superintendents of the Southern Express Company, who have been instructed by President O'Brien to have them in the most conspicuous places in the express offices.

The Society, since its organization in 1900, has been dependent for all its leaflets on the New York Society, but I take much pleasure in reporting that in December the Florida Audubon Society will send out seven leaflets of its own, the manuscripts being generously contributed by members of the Society, the printing of the first edition being a gift from a member. We have in these a letter to members of the Audubon Society by our beloved president, the late Rt. Rev. H. B. Whipple, Bishop of Minnesota; a letter to the boys and girls of the Audubon Society, by Mrs. Whipple; Florida Birds Worth their Weight in Gold, by Mr. Kirk Munroe, our honorary vice-president; A Sudden Friendship, by Mrs. Annie Trumbull Slosson, a vice-president; reprinted from BIRD-LORE by permission of Mrs. Slosson and Mr. Chapman; The Rights of the Man Versus the Bird, by Miss Rose E. Cleveland, also a vice-president of the Society; John James Audubon, by Mrs. Kingsmill Marrs, of the Executive Committee, and also from her a leaflet for little children, called Katie's Pledge. We hope by these to arouse great interest in our work during the coming winter.—
MRS. KINGSMILL MARRS, *for Executive Committee*.

Bird-Lore



EDITED BY
FRANK M. CHAPMAN

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*** Manuscripts intended for publication, books, etc., for review, and exchanges should be sent to the Editor at Englewood, New Jersey.*

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Bird-Lore



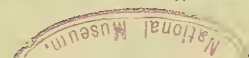
EDITED BY
FRANK M. CHAPMAN

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March - April, 1901

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PUBLISHER'S ANNOUNCEMENT

BIRD-LORE for June might be called a 'Burroughs' Number,' Mr. Burroughs having written for it the history of 'A Bewildered Phoebe' that nested near 'Slabsides,' while Frank M. Chapman contributes an account of a bird-nesting expedition with Mr. Burroughs in which the 'bewildered' Phoebe, as well as other birds, are shown in photographs of more than usual interest.

The issue will also contain a charmingly written article by Annie Trumbull Slosson, the well-known author of 'Fishin' Jimmy,' and a suggestive contribution from Tudor Jenks, of 'St. Nicholas.'

Bird-Lore



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PUBLISHER'S ANNOUNCEMENT

BIRD-LORE for August will contain an article on the birds of Hawaii, by H. W. Henshaw, forming one of the most valuable contributions to ornithology which has been published in this magazine.

Bird-Lore



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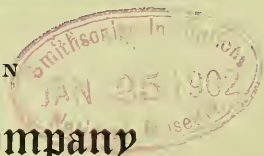
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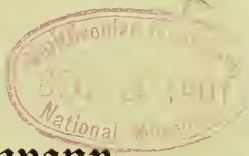
PUBLISHER'S ANNOUNCEMENT

Among the more interesting contents of BIRD-LORE for December will be an article by Ernest Seton-Thompson on 'The Recognition Marks of Birds,' with figures of 18 species of Hawks and Owls, and the first paper, in a series to continue through the year, on 'How to Name the Birds' by Frank M. Chapman.

Bird-Lore



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BIRD-LORE for February, 1902, will contain a list of the members of the Advisory Council, 'Recollections of Elliott Coues' by D. G. Elliot and Capt. C. A. Curtis, with a photograph of Dr. Coues at twenty-one; 'The Weapons of Birds' by F. A. Lucas (illustrated), the second part of 'How to Name the Birds' by Frank M. Chapman, some remarkable moonlight photographs of roosting Crows, etc.





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