Bird-Lore

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

EDITED BY

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VOLUME X—1908

THE MACMILLAN COMPANY

HARRISBURG, PA., AND NEW YORK CITY

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(One-half natural size)

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Vol. X JANUARY — FEBRUARY, 1908 No. 1

The American Dipper in Colorado

By JUNIUS HENDERSON
Curator of Museum, University of Colorado

I HAVE long been convinced that the most remarkable and interesting bird inhabiting Colorado is *Cinclus mexicanus unicolor*, commonly called the Water Ouzel or Dipper—'Dipper' because of the dipping motion of the body as it courtesies on the rocks, according to the one who first applied the name to the species, not because of its dipping the body into the water, as some have supposed. True, many birds are much larger, more highly colored or in other ways more striking. Indeed, so dull and common-place is the close-fitting brown and slate-colored garb, and so well does the noise of the dashing torrent drown his clear, ringing song, that the majority of visitors to our cañons are not aware of his existence. Yet, whoever is permitted to watch him for a few moments feels that it is time well spent. Of the species known to science the writer is familiar only with the one of this region, but doubtless the habits of the others are much the same. Mr. Ridgway gives the following brief summary of the habits of the family:

"They are found only in mountainous or hilly districts, where they frequent swift, rocky streams, in which they seek their food, consisting of water insects and the spawn of fishes. They are at home in the water, under which they propel themselves by motion of their wings; in short, they fly through the water as readily as through the air. Their nest is a domed structure, usually placed behind or near a waterfall, covered with moss, and kept green by the spray which constantly moistens it."

The bird student of the 'prairie states' who is unfamiliar with the family, upon reading the foregoing sentences, may turn to his books and learn that the Dippers are allied to the Thrushes, Wrens and other members of the well-regulated order of perching birds, and from his familiarity with that order he may well exclaim: "Who ever heard of a perching bird flying through the water and rearing its young where the spray constantly moistens the nest! Next thing we will be asked to believe that this bird which has developed the ability to fly through the water with the agility of a Penguin, has retained the ability to fly

through the air with the agility of a Flycatcher, leaving the water as neat and dry as a Duck, instead of bedraggled as a well-behaved perching bird should be under similar circumstances!" Well, that is just what he can do. To be convinced, come and see. Come winter or summer, for they are with us the year round. Driven from the higher altitudes in the winter by the freezing of the streams, for they must have open water, they seldom come out to the open plains, though I have heard their songs and seen them scurrying along the creek in Boulder, just at the edge of the plains, in mid-winter. In the spring some follow the melting of the ice almost to the tops of the mountains, wherever there are dashing brooks and open lakes of clear, cold water. No water is too cold, provided it is clear and not laden with glacial 'flour' or polluted with mud or mill tailings. No snowstorm can stop their merry whistling in the late winter and early spring.

They nest from 5,000 to 11,000 feet or more above sea-level in Colorado, almost always within reach of the flying spray from swift brooks. The collections and notes of Mr. Gale indicate that in this locality their nesting dates vary from the first of May to the middle of June, the variation doubtless in part but not altogether due to differences in altitude. With nests made so snug and dry inside, why constantly sprayed moss on the outside should be essential to their happiness or welfare has not, so far as we are aware, been satisfactorily explained, but that it is a fact seems hardly to admit of a doubt. Mr. Stevenson, of the Hayden Survey of the western territories, reported that in one case where the nest was built beyond reach of spray the birds daily sprinkled it by flying swiftly from the water to the nest and shaking off the few drops remaining on their plumage.

These birds seem to have no gregarious instincts. I have never seen more than three or four together and seldom more than two, and when more than a pair are seen it is usually a young brood soon after leaving the nest. Water beetles and the larvæ of caddisflies, dragonflies and other aquatic insects constitute a large part of their food, with fish spawn perhaps as a minor item in the bill-of-fare. The food is gleaned from the beds of the streams. Their dexterity in the swiftest currents is almost unbelievable. The fisherman who has been almost swept from his feet by the torrent in which the bird makes its way with the utmost ease and speed, is filled with admiration. Though emphatically aquatic, they are not web-footed and do not usually make their way upon the surface of the water after the manner of Ducks, but both walk and fly beneath the water, sometimes diving to great depths. In aërial flight they are rapid, and closely follow the meanders of the streams, seldom taking short cuts even when the bends are rather sharp. Their nests are not only interesting examples of bird architecture, but even more interesting in the method of their construction.

Many accounts have been written concerning the habits of these birds by observant naturalists, but all has not yet been told. Mr. Denis Gale studied

the species for many years in the mountains of Colorado and left in his notebooks several unpublished accounts which should not remain buried in manuscript. I have woven these accounts into one, in order to eliminate repetition, and present the facts in an orderly and logical way without changing the phraseology or doing violence to the meaning by wresting sentences from their proper connection, with the following result:

FROM THE MANUSCRIPT OF DENIS GALE

"Sites for nest—upon a rocky ledge over deep and lively water, behind a waterfall, under a bridge supported by crossbeams. Sometimes a rock in midstream is selected for a site. A pair of these birds have their nest behind Boulder Falls, in a kind of a 'Cave of the Winds,' having to fly in and out through a very wetting, dense spray. The same locality is chosen for nesting year after year unless some physical change renders it unfit.

"However sly and shy this bird may be, if looking for its nest or in its neighborhood, when the bird is satisfied that you have discovered it, all shyness and slyness ends, for then a more confiding, fearless little fellow is not to be met with, going in and out of the nest when you have your hands upon it and with plaintive appeal both in speech (almost) and actions seeks to gain your sympathy and implores your forbearance. Robbed of her treasures, with the joint labor of her mate another nest is made, generally on the same site, and in three weeks she sits covering a second clutch of eggs, and that taken, a third will engage her cares. This fruitful industry no doubt is often exercised independent of the interference of man, from the fact of the sudden rise of streams, when from their situations many nests must be swept away. I do not believe she raises two broods in one season. While most exercised and while watching as it is searching for food in the creek bed, it courtesies continually, and at each courtesy gives a little sharp *twit*, keeping time to every fourth or fifth twit by a sudden working of the eyelid, causing the eye to sparkle brilliantly with the light. The nest is seldom betrayed by the bird itself, unless when the young are hatched. Then the journeys to and from the nest, with food, are easily noted. Previous to having hatched the young, the bird will drop from the opening in the nest like a stone into the fierce, rushing waters, and under the surface, allowing itself to be carried quite a distance before taking flight, its exit unperceived even when looking at the spot. Its aquatic feats are remarkable, going into and against the strongest current with perfect ease, and, like a fish, seeming not to touch the water, coming out of it perfectly dry, without a shake or flutter, to swim, sink or dive and even walk or run under water in search of the food it loves to hunt for. In all clear and unpolluted streams running from the melting snowbanks near the mountain peaks it is equally proficient, nor in flight is it wanting in grace or power, darting down a stream with the rapidity of a flash and again flying from the water up to and about its nest-site, when in danger, with the ease and grace of a Hummingbird and noiselessly as an Owl.

This bird with its aquatic agility and other characteristics offers a subject for your notebook of much interest and instruction. Our little friend is no mean songster, either, in early spring. On sunshiny mornings in March and April, when the noisy creeks are less obtrusive, his beautiful, clear, liquid notes are

DIPPER AT ENTRANCE TO NEST
Photographed by J. Rowley, in Monterey county, California

heard with rapture. Singularly sweet and enchanting is this early choral of the vernal year.

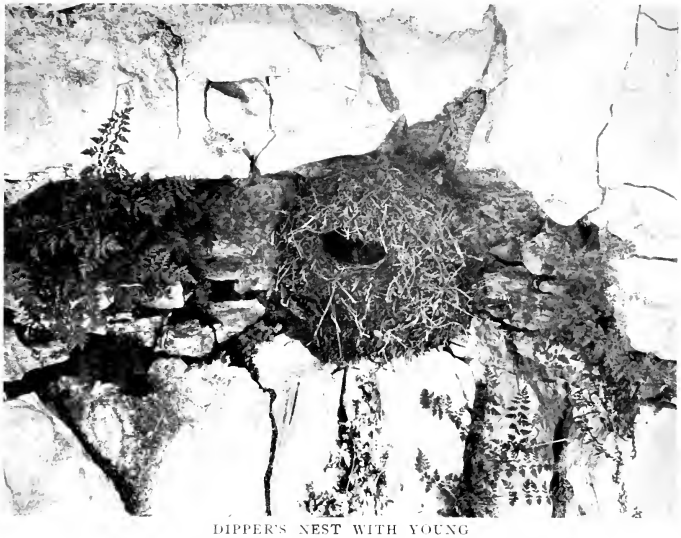
"Below Jimtown, on the creek, about half a mile is a ledge of rock twenty feet high overhanging the creek. In a crevice of this ledge about three feet above the running water, a pair of these interesting little birds construct their nest year after year. On May 20 they have their complement of eggs, four or five in number, pure white, pointed at one end and blunt at the other—in this case like the eggs of the sandpiper. Other sets do not discover this peculiarity. The season for having their eggs differs also according to locality. The nest proper is enclosed in an outside covering not at all void of interest. Set upon a flat, even base, it is oven-shaped, a little longer than broad. The nests of this

bird differ in shape to suit the cavities in which they are placed, but the front is always oven-shaped. The one before me partakes of the shape of the crevice in which it was placed and measures exteriorly seven inches high, eight inches long and seven inches broad. The outside covering is about one and one-fourth inches thick above the rim of the inside nest and about two inches thick below the rim and beneath the nest. This covering is composed chiefly of moss, with some decayed leaves and other rubbish, evidently taken from the water, with bark and grass fiber securing it together, and is always dense, dank and wet from the spray of the dashing water. The entrance is a small aperture, about one and one-half inches in diameter, placed about four inches from the bottom and cleverly hidden by the ragged material of the outer construction hanging over it. The direction of entrance by the bird is upward and its exit downward, as with the Cliff Swallow. The nest proper, concealed by the outer structure and about two inches from the outside edge thereof, is a beautiful structure, a perfect circle, saucer-shaped, about an inch and a half deep and three and one-half inches wide inside the cup. This is composed of a peculiar, non-absorbent, coarse, wiry grass, lined with a few willow leaves, flat and intact, all perfectly dry. All materials being used wet, after they are worked into position and molded by the bird's body being twirled around, the nest proper remains a fixture. This nest-wall of grasses is about one inch thick. The nest inside in shape and material seems always to be the same. The material entering into the construction of the covering is chosen to match the site it is intended to occupy. Moss is sometimes ignored, and decayed and other debris and rubbish substituted to keep the outside in harmony with its surroundings. The whole structure in place is scarcely distinguishable from the surroundings, all being of the same color and having the appearance of a bunch of debris placed there by high water—nothing new-looking about it. It is very compact and strong, so little damaged as a rule by a season's occupation and the wear and tear of the winter's storms that very little repair is needed for a second year's occupancy. Decay of the materials after a time causes the dome to sink down, thereby rendering it inconvenient if not entirely useless. Then it is pulled down and a new one built on the same site. I have known of a pair of the birds, no doubt the same pair, building in the period of eight years several nests as occasion required in the same niche.

"May 11, 1893. Both birds at work on the nest, probably five days' work done. In shape like a horseshoe, open end back by an upright rock ledge.

"May 19, 1893. Nest noted on the eleventh instant, in a period of two weeks very little done on it, not more than two fair days' work as I saw the female working this morning for an hour while the sun was bright and warm. In every minute or two she brought material and incorporated it into the walls of the nest dome in the most ingenious manner, by forcing, with much exertion of her bill, the fresh wet material into the interstices in the already constructed and partially dry walls, from the inside, as a shoemaker uses his awl, picking

up any small portions from the bare floor that may have been broken or detached, and in the manner as described caulking it into any little space offering, working from the bottom up, always below the top rim, upon which nothing is laid after the walls are raised to a level with the floor of the nest proper and the threshhold of the opening. The walls are then raised on all sides by forcing the building material into the wall from below in such a way as to act as a wedge. The mouthful of material is pushed awl-like into the wall, raising its upper edge, until its proper place is attained and it is released from the mandible. Then the ends and loose parts are tucked in in like manner, not as a pellet,



DIPPER'S NEST WITH YOUNG

Photographed by H. W. Nash, at Sweetwater lake, Colo., July 20, 1897

but rather suggesting a plug resembling a spider. The sprays and fibers on the outside are allowed to lie loose, plush-like, to lead the water from the dome roof as from a hay-cock. As this work on the walls dries the insertion of other plugs with their outrigging, so to speak, knits the whole densely. These insertions necessarily act forcibly on all sides, the limit of the little worker's strength, fully sufficient for the work in hand, seeming to be used. I noticed that the part of the wall she was working upon was about three and one-third inches high, and while she was working in the material about one and one-half or two inches from the floor (which was on an incline of one and one-half inches in seven inches, the lowest part being in front and to one side, upon which side she was

working), after delivering home her quota of material she would take a turn at wedging in the bottom caulking where the material rested on the rock floor. Her object I understood to be two-fold, to fasten the foundation well to the rock and at the same time render that part below her insertions as compact and dense as possible, in order that her work should raise the upper part, which from its lesser density was more easily affected or sensible to the wedge. The top edge showed the slightest inclination to arch, which form is obtained by the deft manipulation of the builder. Thus by working from below the lips or edges of the walls from all sides are closed up and the keywedges put in at the last complete the outside covering. I noticed when caulking the nest to the rock while working on the lower side the bird lay flat on the floor, spread her wings for a purchase and seemed to push with all her strength to insure a well-caulked seam. About the same period of time taken to gather the material was taken in its adjustment, with the oft-recurring heavy work at the bottom-seam caulking and a like period for a rest. About every third journey she scratched her cheek or her crown with her foot, sometimes on one side and then on the other, and as often rumpled her feathers, looked somewhat glumpy, possibly fatigued, and yet while appearing thus the constant courtesying was kept up, as often as not while resting on the nest-site, and just before the journey for fresh material she would raise her wings, probably to feel if they were clear of the material composing the upper part of the structure which might be easily disarranged. While observing her, once only did her mate put in an appearance, took a position close to the nest, gave two or three chirps and then a trill like an English Blackbird—a very agreeable musical performance which his mate scarcely seemed to appreciate, being occupied with her plans of construction. She snubbed an advance he was about to offer her and took a position near the nest on the rock ledge, while he fussed around the nest, seemed to do a little caulking and then flew away. It was evident to me that he was not wanted. It also occurred to me that this species is not the exception; that when the female takes upon herself the whole labor of construction she prefers to do so, that her plans may not be interfered with."

The Bird that Nests in the Snow

By SIDNEY S. S. STANSELL, Edmonton, Alberta

THE Canada Jay has almost as many local names as the Flicker. Those who do not know him by the name of Canada Jay, recognize him at once when you call him 'Moose Bird,' 'Camp Robber,' 'Whiskey John,' 'Whiskey Jack,' or 'Lumber Jack.'

When you are traveling through the woods he is almost always your constant companion, and when you light a camp-fire or discharge a gun, he is always

CANADA JAY
Photographed by Sidney S. S. Stansell, April 8, 1907

there, should he be within hearing or seeing distance, chirping contentedly and looking for what he may devour.

I was traveling through the woods one day in early spring and fired a small rifle, the report of which was not very loud, but almost immediately a Jay came and lit on a small tree near by and chirped as though asking for his share of the game. I soon threw him a morsel and he immediately took it and flew away, probably to his nest to feed his mate—a fact which I know he does.

A certain pair of Canada Jays lived all winter long in the immediate vicinity of two small cabins in a clearing. Whenever a crumb or scrap of meat was thrown from either door they would pounce down upon it and devour it at once, hide it in a cavity of some tree, or stow it snugly away between two branches to be eaten later when food became scarce.

These birds became quite tame. I have had them come and take food from my hand; at other times they have entered the cabin through an open window and helped themselves to food placed purposely on the table for them.

About the first of March these birds began to show signs of wanting to nest although the mercury registered more than forty degrees below zero; nevertheless, a nesting-site was chosen in a clump of 'diamond' willows within two hundred yards of one of the cabins, and house-building began. On March 31, one egg was deposited. I visited the nest daily afterwards until April 8, then as no other egg had been laid I proceeded to photograph the bird and her home. The snow around the nesting-site was about three feet deep and shows in the photograph.

At first the bird seemed quite shy, and flew away several times while I was making preparations for the picture. Each time when she returned she would alight on the edge of the nest, look around for a second or two, then place her beak gently on the single egg, as if to make sure it had not been disturbed, all this time uttering a low not unmusical chirp; then quietly settle down on the nest. Once only did her mate return with her, then they both carefully examined the egg, after which they gently and lovingly rubbed their beaks together, then he flew away and she took her place on the nest again.

The nest was situated eight feet from the ground, the lower portion was composed of twigs, the upper very closely woven with grasses, shredded bark and fine twigs. The cup-like interior was neatly and warmly lined with rabbit fur, hair and fine feathers.

Warm this beautiful home is and warm it should be, for nesting as they do, in winter, it would take but a moment's exposure of the very severe winters here to chill the tiny birds to death or freeze the unhatched eggs.

Redpoll Linnets

By LOTTIE ALVORD LACEY, Southport, Conn.
Illustrated by the author

IT has been our custom for years to feed the winter birds. Last winter (1906-7) after the first heavy snowstorm a lunch-table was provided for them. It consisted of a board eight feet long and eighteen inches wide, which was placed a rod or two from the house and spread with millet several times a day. This was done through February and March and we were repaid a hundred fold.

At first the table was patronized almost exclusively by English Sparrows and Tree Sparrows, but others kept arriving daily until our guests numbered at least twenty-five English Sparrows, twelve or fifteen Tree Sparrows, three Song Sparrows and six Juncos. These came regularly, and one day early in March, eight aristocratic little strangers appeared. They resembled Chipping Sparrows, but were of an ashier hue with, upon the top of the head, a patch of crimson glistening like satin in the sunlight. They were immediately looked up and identified as Redpoll Linnets, and it was about these birds that all interest centered from this time on. They made themselves at home from the first.

As soon as the table was spread each day the numerous guests, who had been intently watching and eagerly chirping in the surrounding trees and shrubbery, began to take their places. It was generally an English Sparrow that came first; then,'the ice being broken', there was a general advance from all sides.

It was interesting to watch the different modes of approach. The English Sparrows hopped from limb to limb, coming nearer by degrees; the Tree Sparrows flew directly to the board; the Song Sparrows always alighted a rod or so away and crept along the ground to the table. But the Linnets were the most graceful; they dropped from their perch above and fluttered down in wavering circles precisely like falling leaves. They moved about the lunch-table with a quiet air of superiority, and the other birds instinctively gave place to them, with the exception of the Tree Sparrows, who were very impudent and belligerent at every meal. As the table filled there was more or less scurrying for choice positions, but the English Sparrows, to our surprise, were models of good breeding. If a Linnet approached a portion of millet appropriated by one of them the English Sparrow very rarely made any objection to sharing, and quite frequently moved away immediately, seeming to say, "Pardon me, I did not know that this was your place at table."

Outside one of the windows, close to the sill and on a level with it, there was a flower-box three feet long and one and one-half feet wide. In this, also, millet was placed each day, and the Linnets found it the same afternoon that they discovered the lunch-table. We heard a great chattering at the window and going to it found five Redpolls conversing vigorously over their feast. As

they were feeding they constantly moved about the box keeping up a pleasing "*Cher,* cher, cher, cher, *Cher,* cher, cher, cher," accenting the first syllable quite noticeably.

As they seemed fearless, allowing us to come close to the window to watch them, it occurred to me that perhaps I could induce them to feed from my hand. Accordingly the next morning, wrapping up well and putting on a glove, I seated myself by the open mindow holding a handful of millet on the sill close by the box. Nearly an hour passed before the Linnets ventured down. They had been moving about a nearby tree closely watching me and presently a venturesome one alighted in the box. Soon five others came, one of which hopped into my hand and ate a hearty meal. I felt fully repaid for the long time spent in waiting.

ONE REDPOLL IN THE HAND AND NINE IN THE BOX BELOW

The next day, about noon, I took my place at the open window again with millet in the box on the window-sill, in my lap and a generous supply in my hand (gloveless this time). In a few seconds the Linnets were flying all about me seeming now to have perfect confidence. One came almost immediately into my hand and held possession, allowing no one else to come there, but another little fellow crept along the window-sill and reaching up helped himself when the first one was not looking. A third one after eating a while on the window-sill hopped into my lap and had his lunch there while fourteen others made a charming sight feeding happily in the box under my hand. They kept up the pretty little conversational "*Cher,* cher, cher, cher" constantly while feeding, the first syllable being accented vigorously and *sharply* if one felt that another was trespassing on his claim.

After this they came several times every day and when a handful of seed was presented they flew into the hand without hesitation and had pitched battles for the privilege of eating there, seeming to appreciate the warm perch and unlimited supply of food. Two flew into the room and as they were fluttering about some plants at a closed window I caught them and brought them to the open window. One was badly frightened but the other seemed to have little fear and did not make haste to leave my hand.

One morning I heard an unfamiliar song and discovered a flock of Linnets on an arborvitæ near the porch singing a delightful little song something like this:

"Sweet, sweet, sweet,
Such a dee-ahr, such a dear,
Sweet, sweet."

The tone was shrill and sweet quite like that of the Yellow Warbler. Their call note was a questioning "Suee-'eet."

REDPOLLS WAITING FOR LUNCHEON
From a painting by L. A. Lacey

One day when they were feeding in and about my hand, a sudden noise startled the flock and all flew off excepting the one in my hand. He stayed, eating with perfect content as though he knew he was protected. The others soon came fluttering back seeing nothing to fear. Alarms were very frequently given during the days they were with us but the bird standing in my hand almost *invariably* stayed while all the others flew to the surrounding trees to reconnoiter.

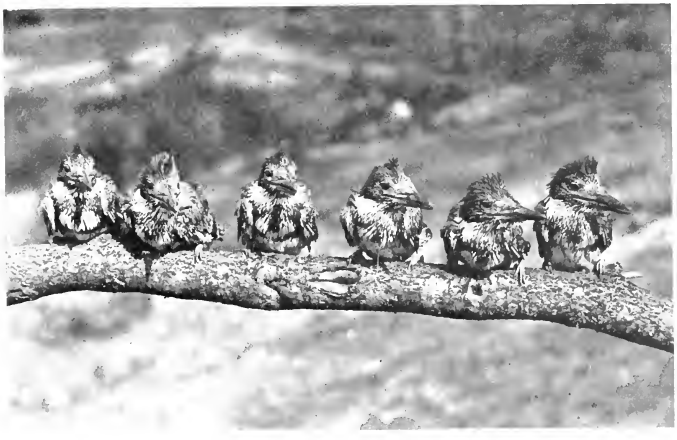
The flock steadily increased. They evidently had some method of communicating with other scattered flocks, passing the news along concerning the abundance of food they had found. About a week after the arrival of the first eight there was a snowfall of several inches, and the following morning we counted thirty-five of them. As they were very hungry and the out-of-doors lunch-table was uncomfortably crowded, we spread millet over a table in the room (to the window of which they were accustomed to come) and they literally crowded in, showing no fear although two of us were standing within four or five feet

of the table. There were twenty-seven Linnets and a number of Tree Sparrows feeding at one time. It was a fascinating sight.

Later in the day I took my seat by the window, after having spread millet on the table and in the box. In a few moments the Linnets appeared and soon there were three eating from my hand while the table six inches from me was swarming with them; twenty-seven at least being there at one time. While one was eating in my hand I slowly raised my thumb to encircle him and when it was so high that he could not bite the one who was trying to seize a seed occasionally from the other side of my hand he hopped up on my thumb and down the other side to nip the poacher, then back again to his first position. This was done repeatedly but, finding he was losing time that way he took up a position midway, one foot on my palm and the other stretched up on my thumb so that he could eat on one side and bite the intruder on the other, without the wear and tear of jumping over and back.

Three of these birds had rosy breasts, the color seeming to deepen as the warmer weather came on until two of them had breasts as crimson as their crowns, and these were the only ones, with one exception, that had rosy rumps.

They stayed with us several weeks, the flock diminishing as the snow disappeared and the weather grew warmer and on March 25, four of them, three with rose-tinted breasts, made their parting call. We fully expect to see them again during the coming winter, for their wings are long and strong and what do a few hundred miles longer flight signify to them when there is a certainty of abundance of food at the end of the journey?



YOUNG KINGFISHERS
Photographed by James H. Miller, Lowville, N. Y.

A Bird Friend

By FRANK M. CHAPMAN

A BARRED OWL PORTRAIT
From a drawing by Robert Sims

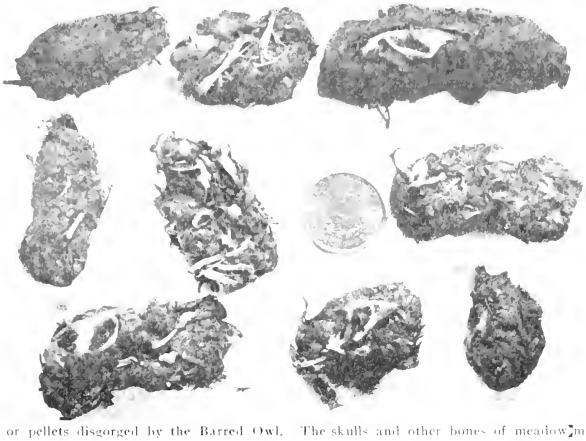
WE doubtless all have our favorites among the birds, and in most cases, it would probably be found that our especial fondness for a particular species has resulted from some response on its part to our advances. The Chickadee has won a place for itself in the heart of every one who knows it, not through its charm of song or beauty of dress, but through the quaint little personality its familiarity has permitted us to have a glimpse of. The bird actually seems to notice us; we are something more than objects to be afraid of, and a glance from its shining, intelligent eye suggests possibilities of companionship which we grasp at eagerly. The death of a bird with which we have established delightful relations of this kind passes the bounds of abstract bird destruction and becomes a murder which we would gladly avenge.

So I feel, at least, toward the murderers, unfortunately unknown, of the Barred Owls, which, as long as I can remember, have inhabited a certain woods near my home. Rarely did they fail to answer my call, and even when there was no response I felt assured of their presence, and found pleasure in the mere knowledge of it.

If there had been any real reason for killing them, any crime justifying their death warrant, I should feel their loss less keenly, but they were shot as a test of markmanship and as wantonly, perhaps even more wantonly, than if I were to shoot at the automobilists whirring by, simply to see if I could hit them.

There is a certain rarely uttered scream of the Barred Owl which raises the hair and stops the heart-beat for a moment of those who, even with a clear conscience, hear it, and if from time to time it could echo in the dreams of the murderer of my Barred Owls, I should feel that in a small measure, at least, he was reaping as he had sowed.

An appeal to sentiment alone will doubtless not win for other Barred Owls that right to live which is the privilege of all law-abiding citizens, but that such a privilege is their due may be gathered from the appended photographic statement of their value to mankind.



Casts or pellets disgorged by the Barred Owl. The skulls and other bones of meadow mice may be plainly seen. A coin has been introduced into the picture to show comparative size

View beneath a tree frequented by a Barred Owl. Showing disgorged casts which contained only the remains of mice

THE FOOD OF THE BARRED OWL

Two photographs made by H. M. Stephens, at Carlisle, Pa.

The Migration of Flycatchers

SECOND PAPER

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

With drawings by Louis Agassiz Fuertes and Bruce Horsfall

COUCH'S KINGBIRD

This is a species of wide distribution in Mexico, but it ranges north in summer barely to the United States, near the mouth of the Rio Grande in southern Texas. It was first seen May 8, 1877 and April 30, 1878; the earliest records for eggs are May 20, 1891, May 16, 1893 and May 13, 1894.

ARKANSAS FLYCATCHER

This is the commonest and best known of the large Flycatchers of the West. It deserts the United States in winter and is found at that season in Mexico and Guatemala.

SPRING MIGRATION

PLACE	No. of years' record	Average date of spring arrival	Earliest date of spring arrival
Kerrville, Tex.	6	April 28	April 24, 1905
Rockport, Tex.			April 18, 1893
Central Kansas	3	May 2	April 24, 1906
Central Nebraska	11	May 5	April 23, 1896
Northern North Dakota	5	May 16	May 12, 1906
Old Wives Creek, Sask.			May 26, 1895
Fort Webster, New Mex.			March 25, 1853
Carlisle, New Mex.			April 8, 1890
Oracea, Ariz.			February 25, 1899
Catalina Mts., Ariz.			March 28, 1885
Yuma, Colo.	3	May 2	April 30, 1905
Cheyenne, Wyo.	2	May 12	May 10, 1889
Rathdrum, Idaho	2	May 10	May 8, 1905
Terry, Mont.	8	May 17	May 8, 1894
Southern California	4	March 18	March 17, 1896
Central California	5	March 23	March 16, 1901
Southern British Columbia	4	April 25	April 22, 1906

The Arkansas Kingbird retires early toward its winter home. Some dates of the last seen are: Okanagon, B. C., August 31, 1905; Chilliwack, B. C., September 2, 1889; Cashmere, Wash., September 22, 1904; Yuma, Colo., September 23, 1904; Lawrence, Kans., October 4, 1906.

CASSIN'S KINGBIRD

This species winters principally in Mexico, but a few go as far south as Guatemala and a still smaller number remain in southern California.

The usual time of migration is indicated by the following dates of the earliest seen: Tucson, Ariz., March 24, 1902; Catalina mountains, Ariz., March 28, 1885; Pueblo, Colo., April 29, 1894; Cheyenne, Wyo., May 9, 1889; Grange-

ville, Idaho, April 28, 1887; Paicines, Calif., March 7, 1899, March 15, 1901. In the fall the last birds were seen at Beulah, Colo., September 5, 1905, and in the Catalina Mountains, Ariz., October 9, 1884.

The Twenty-fifth Annual Congress of the American Ornithologists' Union

THANKS to the efforts of the local Committee, the Twenty-fifth Annual Congress of the American Ornithologists' Union (Philadelphia, December 10–12) will be remembered by those who were fortunate enough to attend it as one of the most successful and enjoyable in the history of the Union.

The plan of having but one hotel as headquarters, the annual dinner, the 'Smoker' and the daily luncheons at the Academy all offered those opportunities for social intercourse which are so important a part of gatherings of this kind, while the program contained papers of much interest.

Charles F. Batchelder, President; E. W. Nelson and Frank M. Chapman, Vice-Presidents; John H. Sage, Secretary; J. Dwight, Jr., Treasurer were all re-elected. Richard C. McGregor, Manila, Philippine islands was elected a Fellow; Dr. Carl H. Hennicke of Germany and Dr. Sergius A. Buturlin, of Russia were elected Corresponding Fellows; Ned Dearborn, Chicago, E. Howard Eaton, Rochester, N. Y., W. L. Finley, Portland, Oregon and O. W. Knight, Bangor, Me., were elected Members. One hundred and twenty-three Associates were elected, some forty more than were elected last year, an indication of the growing interest in bird study.

The next Congress of the Union will be held in Cambridge, Mass., November 17–19, 1908.

CLARKE'S NUTCRACKER
Photographed by Evan Lewis, at Idaho Springs, Colo.

Bird-Lore's Advisory Council

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

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

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

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

NAMES AND ADDRESSES OF MEMBERS OF THE ADVISORY COUNCIL

UNITED STATES AND TERRITORIES

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

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

CANADA

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

MEXICO

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

WEST INDIES

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

GREAT BRITAIN

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

From a Westerner's Standpoint

THE Editor of BIRD-LORE is quite right in saying that the American Ornithologists' Union Committee has in the past shown excellent judgment in the selection of English names for our birds. Such changes as appear desirable have become so through a slightly altered point of view, or through greater familiarity with the birds themselves, rather than any discrediting of previous decisions.

We of the West find ourselves handicapped in a measure by the constant recurrence of the adjective *Western*, but so long as we are in the minority we must make the best of it; and precisely because the vernacular names are more stable than the scientific, we recognize the necessity of making them geographically definitive. All we ask is that they shall be accurate in this regard. In general there should be a freer use of the word 'Pacific' in designating species common to the three sister states, California, Oregon and Washington, unless it can be clearly shown, as in the case of the California Cuckoo, that the bird has its center of abundance in one of them. The 'Oregon' Vesper Sparrow (*Poœcetes gramineus affinis*) is just as truly a Washington bird. Moreover, the Western Vesper Sparrow (*P. g. confinis*) probably outnumbers *affinis* two to one in Oregon. Would it not be better, therefore, to call *affinis* the *Pacific* Vesper Sparrow?

We stand in need of an accepted faunal name to designate that homogeneous area which includes eastern Oregon and Washington, Idaho west of the Rockies, and southern British Columbia. Commercially we refer to this region as the 'inland empire'; and there has been talk of a political coalition under the name Lincoln or Lincolnia, but for geographico-zoölogical purposes the word *Columbian* is perhaps the most suitable. It has been applied successfully in the case of the Columbian Sharp-tailed Grouse. It should be extended to such birds as the 'San Diego' Redwing (*Agelaius phœniceus neutralis*) and the 'Dusky' Horned Lark (*Otocoris alpestris merrilli*). The name Columbian is also more consistently applicable to the western 'colony' of *Parus atricapillus* than to *Parus hudsonicus columbianus*, as at present.

Of course all distinctive geographical names must tend to fall away in local use. The Western Robin is simply the Robin to us in Washington; the Puget Sound Bush-Tit is the Bush-Tit, etc. We ought perhaps, to give this abbreviating tendency a little larger recognition in our check-list. Or, if we do consider it necessary to repeat the word *American* some thirty-three times in the text, for the sake of distinctness, we should feel free to dispense with it in common use, as in the columns of BIRD-LORE; and we ought not to allow ourselves to be cheated out of the use of such fitting titles as Widgeon or Peregrine Falcon in the mere effort to be different. 'Baldpate' is simply a book name for the Widgeon, in the West, at least; while 'Duck Hawk' degrades our noblest *Falcon*.

Personally, I think the custom of naming our Warblers after their favorite

trees a very pretty one, and I should dislike to see changes made, save for the gravest reasons.

As the most impossible name (either to accept or alter) I submit the 'Louisiana Water Thrush.' It is inconsistent and misleading, but what are we going to do about it? Here are a few attempts: Glade-sprite, Glade-thrush, Glade-water-thrush, Glade Accentor, Dingle-thrush, Dingle-warbler, Dingle-witch, Cock-o-the-run, Water-fay, Dell Nixie, Alleghany Water-thrush.

A few specific suggestions follow: Change

'Northwest Coast' to *Fannin's* Heron.

'Partridge' to *Quail* in genus *Oreortyx* and *Lophortyx*.

'Duck Hawk' to *American Peregrine Falcon*.

'California' to *Pacific* Pygmy Owl.

'Northern Red-breasted' to *Northwest* Sapsucker.

'Arkansas' to *Western* Kingbird.

'Green-crested' to *Acadian* Flycatcher. (Acadian, like Arcadian, through poetical use, no longer recalls a place but a condition; and its use cannot possibly be misleading.)

'Streaked' to *Pacific* Horned Lark.

'Dusky' to *Columbian* Horned Lark.

'American' to *Mexican* Raven.

'San Diego' to *Columbian* Redwing.

'California' to *Pacific* Purple Finch.

'Oregon' to *Pacific* Vesper Sparrow.

'Louisiana' to *Crimson-headed* Tanager.

'Macgillivray's to *Tolmie's* Warbler.

'Long-tailed' to *Western* Chat.

'American Dipper' to American *Water Ousel*.

'California' to *Sierra* Creeper.

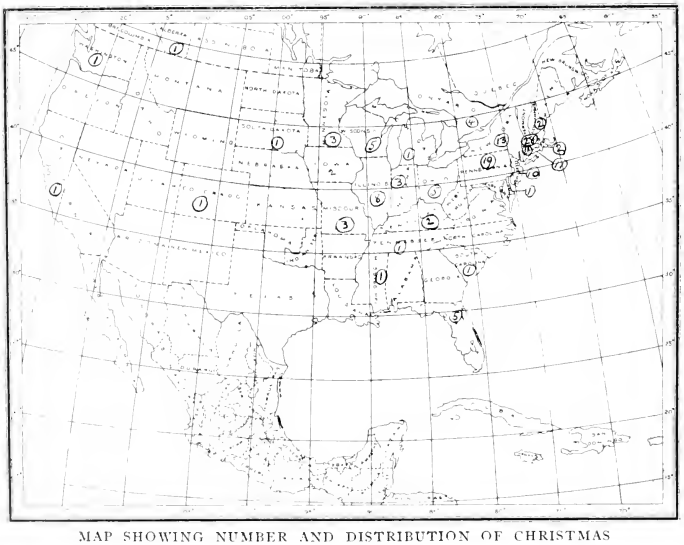
Seattle, Dec. 28, 1907. W. Leon Dawson

The Eighth Christmas Bird Census

BIRD students are not easily influenced by weather conditions, but birds are, and one might think that as the weather of Christmas week was exceptionally favorable for birds and for the recording of them, the returns for BIRD-LORE'S Eighth Census would be of exceptional interest. It is true, a greater number of observers were heard from than on any previous occasion, but from most quarters comes the report "very few birds this winter." Such true northern birds as Crossbills, Redpolls, Pine Grosbeaks and the Shrike are almost wholly absent, while the commoner winter birds are said to be present in smaller numbers than usual.

The Censuses, however, are made to record the results obtained and one containing a small number of birds or none at all, is just as important as the one with forty or more species, provided that it truly represents existing conditions. It is data of the kind we are accumulating which will permit us to say with some definiteness just how abundant or scarce winter birds are, for comparative statements of this kind are of value only when they are based on actual records.

We regret to say that a number of Censuses were received too late for insertion, while the demands the Census makes on BIRD-LORE'S space has prevented



MAP SHOWING NUMBER AND DISTRIBUTION OF CHRISTMAS BIRD CENSUSES

us from accepting more than one Census by the same person from the same locality.

Ottawa, Ontario.—Dec. 27; 1 to 4.30 P.M. Cloudy and damp; foot of snow on ground; wind south, light; temp., 40°. Downy Woodpecker, 1; Crow, 1; Blue Jay, 2; White-breasted Nuthatch, 3; Chickadee, 6. Total, 5 species, 13 individuals. Snowflakes and a Meadowlark were seen a few days ago.—G. E. HARTWICK.

Reaboro, Ontario.—Dec. 26; 2 to 4 P.M. About thirteen inches of snow; temp., about 30°; wind west, light. Ruffed Grouse, 2; Hairy Woodpecker, 2; White-breasted Nuthatch, 1; Chickadee, 4. Total, 4 species, 9 individuals. A Screech Owl was seen on Christmas. The Downy Woodpecker, Blue Jay and Snowflake are all here this winter.—E. WELLINGTON CALVERT.

Orangeville, Ontario.—Dec. 19; 7.50 A.M. to 5.05 P.M. Snowing most of day; about fifteen inches of snow; wind west, very strong; temp., 22°. American Goshawk, 1; Downy Woodpecker, 5; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 18; Golden-crowned Kinglet, 2; Total, 6 species, 31 individuals.—ALVIN J. SCOTT and E. W. CALVERT.

Millbrook, Ontario.—Dec. 25; 9 A.M. to 1.30 P.M. Snowing, a foot of snow on ground; wind south; temp., 30°. Ruffed Grouse, 2; Blue Jays, 5; Chickadees, 16; White-bellied Nuthatch, 2. Total, 4 species, 25 individuals.—SAM. HUNTER.

Wilton, N. H.—Dec. 25; 9 to 11 A.M. and 2.30 to 4.30 P.M. Fair in A.M.; cloudy in P.M.; snow four inches with crust; light, southeast wind; temp., 38° to 40°. Downy Woodpecker, 1; Blue Jay, 5; Tree Sparrow, 3; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 2; Chickadee, 15. Total, 6 species, 29 individuals. A very decided scarcity of all kinds of birds has been noticed in this vicinity since last summer.—JAMES A. WING and GEORGE G. BLANCHARD.

Cornish, N. H.—Dec. 25; 9 to 11.25 A.M.; 3.40 to 4.45 P.M. Sunshine in A.M.; ground covered with several inches of snow; light breeze; temp., 34°. Hairy Woodpecker, 2; Downy Woodpecker, 1; Chickadee, 24; White-breasted Nuthatch, 5. Total, 4 species, 32 individuals.—ETHEL R. BARTON.

Fitchburg, Mass.—Dec. 28; 10.30 A.M. to 1.30 P.M. Clear, four to six inches ice and snow; occasional bare ground; wind west, light; temp., 34°. Ruffed Grouse, 1; Golden-crested Kinglet, 8; Chickadee, 20. Total, 3 species, 29 individuals.—ALVIN G. WHITNEY, F. N. DILLON and G. F. HABBARD.

Swampscott Shore and Marblehead Neck, Mass.—Dec. 26; 9 A.M. to 3 P.M. Fair; wind west, fresh; ground bare; temp., 41° to 45°. Holboell's Grebe, 3; Horned Grebe, 11; Loon, 4; Red-throated Loon, 1; Black Guillemot, 4; Great Black-backed Gull, 1; Herring Gull, 44; Red-breasted Merganser, 25; American Golden-eye, 43; Bufflehead, 1; Old Squaw, 17; White-winged Scoter, 1; Surf Scoter, 5; Northern Flicker, 7; American Crow, 2; Snowflake, 2; Tree Sparrow, 1; Myrtle Warbler, 1; Chickadee, 11. Total, 19 species, 184 individuals.—GORDON B. WELLMAN and HORACE W. WRIGHT.

Ipswich, Mass.—Dec. 25; 11 A.M. to 12 M. Clear, ground bare; temp., 50°. Herring Gull, 80; Crow, 16; Sparrow, 3; Flicker, 1. Total, 4 species, 100 individuals.—JESSE H. WADE and FRANCIS C. WADE.

Ipswich, Mass.—Castle Hill to Big Dune, return through the Dunes. Dec. 21; 10.30 A.M. to 2.30 P.M. Clear; snow on ground, heavy in Dunes; wind west, light; temp., 40°. Loon, 2; Kittiwake, 45; Great Black-backed Gull, 4; Herring Gull, 86; Red-breasted Merganser, 400; American Golden-eye, 77; Surf Scoter, 8; Horned Lark, 19; Crow, 154; Snowflake, 105; Lapland Longspur, 2; Ipswich Sparrow, 1; Tree Sparrow, 65; Junco, 1; Myrtle Warbler, 33; Chickadee, 20. Total, 16 species, 1,022 individuals.—EDMUND and LIDIAN E. BRIDGE.

Nahant, Mass.—Dec. 26; 11.30 A.M. to 2 P.M. Clear; ground bare; wind west,

light; temp., 42°. Loon, 1; Herring Gull, 200; Leach Petrel, 1 (dead on beach); Bufflehead, 14; Old Squaw, 20; White-winged Scoter, 6; Horned Lark, 18; Crow, 3. Total, 8 species, 263 individuals.—ELIZABETH D. BOARDMAN and LIDIAN E. BRIDGE.

Nahant, Mass., Eastern Point to Lynn.—Dec. 20; 9.30 A.M. to 12.30 P.M. Clear; snow on ground; wind west, light; temp., 22°. Brunnich's Murre, 1; Great Black-backed Gull, 3; Herring Gull, 250; Red-breasted Merganser, 4; Scaup Duck, 6; American Golden-eye, 30; Bufflehead, 16; Old Squaw, 22; White-winged Scoter, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Horned Lark, 13; Crow, 20; Song Sparrow, 2; Chickadee, 2. Total, 15 species, 372 individuals.—LIDIAN E. BRIDGE.

West Medford, Mass., through Middlesex Fells to Wyoming.—Dec. 22; 8.30 A.M. to 11.30 A.M. Clear; snow on ground; wind west, light; temp., 32°. Herring Gull, 1; American Merganser, 10; Mallard, 1; Red-legged Black Duck, 200; Pintail, 1; Crow, 8; Blue Jay, 1; Pine Siskin, 2; Tree Sparrow, 4; Brown Creeper, 7; White-breasted Nuthatch, 1; Chickadee, 4. Total, 12 species, 240 individuals. (December 25, in the same field, Northern Shrike, 1; Mockingbird, 1.—EDMUND and LIDIAN E. BRIDGE.

Squantum, Mass.—Dec. 25; 12 M. to 2 P.M. Clear; ground bare; west wind, strong; temp., 34°. Herring Gull, 100; American Merganser, 15; Scaup Duck, 30; American Golden-eye, 5; Downy Woodpecker, 3; Flicker, 1; Crow, 50; Goldfinch, 5; Red-breasted Nuthatch, 1; Chickadee, 12. Total, 10 species, 222 individuals.—BARRON BRAINERD.

Brookline, Fenway, Mass.—Dec. 27; 12 M. to 12.30 P.M. Clear; ground bare; west wind, light; temp., 40°. Herring Gull, 3; Sparrow Hawk, 1; Flicker, 1; Crow, 8; Goldfinch, 1; Chickadee, 6; Golden-crowned Kinglet, 3. Total, 7 species, 23 individuals.—BARRON BRAINERD.

Franklin Park, Arnold Arboretum, Boston Parkway and Charles River.—Dec. 21; 9.30 A.M. to 1 P.M. Clear; four inches of snow on ground; temp., 38°. Herring Gull, 125; Red-legged Black Duck, 15; American Golden-eye, 20; American Coot, 5; Sparrow Hawk, 1; Northern Flicker, 10; Blue Jay, 4; Crow, 7; American Goldfinch, 2; White-throated Sparrow, 2; Trees Sparrow, 1; Song Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch 2; Golden-crowned Kinglet, 7; Chickadee, 19. Total, 16 species, 224 individuals.—JAMES L. PETERS.

Franklin Park, Morton Meadows (8 to 9.15 A.M.); **Arnold Arboretum, Allandale Woods, Jamaica Pond.**—Dec 22; 9.45 A.M. to 1.20 P.M. Four inches of snow; wind southwest, light; temp., 40°. Red-legged Black Duck, 37; American Coot, 2; Bob-white, 8; Ring-necked Pheasant, 4; Sharp-shinned Hawk, 1; Northern Flicker, 10; Blue Jay, 9; Crow, 20; Bronzed Grackle, 1; American Goldfinch, 7; Tree Sparrow, 6; Junco, 2; Song Sparrow, 3; Brown Creeper, 1; Golden-crowned Kinglet, 10; Chickadee, 14. Total, 16 species, 133 individuals.—JAMES L. PETERS.

Marblehead, Swampscott, Nahant, Mass.—Dec. 24; 9.30 A.M. to 4.15 P.M. Clear; ground bare; wind light, temp., 45°. Holboell's Grebe, 1; Horned Grebe, 2; Loon, 1; Black Guillemot, 3; Black-backed Gull, 3; Herring Gull, 400; Red-breasted Merganser, 1; Greater Scaup, 15; American Golden-eye, 10; Bufflehead, 31; Old Squaw, 16; White-winged Scoter, 14; Northern Flicker, 1; Horned Lark, 14; Crow, 1; Song Sparrow, 3; Golden-crowned Kinglet, 3; Chickadee, 8; Robin, 1; Total, 19 species, 522 individuals.—NORFOLK BIRD CLUB.

Squantum, (9.45 A.M. to 12 M.); **Middlesex Fells.**—Dec. 26; 2 to 4.30 P.M. Clear; ground bare; patches of snow in woods; wind northwest, light; temp., 40°. Herring Gull, 278; American Merganser, 61; Red-breasted Merganser, 13; Red-legged Black Duck, 71; Greater Scaup, 50; American Golden-eye, 1; Old Squaw, 33; White-winged Scoter, 1; 'Pigeon' Hawk, 1; Crow 59; Song Sparrow, 1; Brown Creeper, 2. Total, 12 species, 571 individuals.—JAMES L. PETERS, R. M. MARBLE and J. T. COOLIDGE, 3rd.

Charles River, Boston Fens, Jamaica Pond, Mass.—Dec. 22; clear; wind west; four inches snow; temp., 40°. Black-backed Gull, 1; Herring Gull, 450; Red-legged Black

Duck, 68; American Golden-eye, 38; American Coot, 2; Red-tailed Hawk, 1; Flicker, 3; Blue Jay, 4; Crow, 9; Goldfinch, 1; Song Sparrow, 4; Junco, 1; Brown Creeper, 1; Chickadee, 3. Total, 14 species, 586 individuals.—J. KITTREDGE and R. M. MARBLE.

Belmont, Mass.—Dec. 25; 11 A.M. to 12.30 P.M. Clear; light west breeze; patches of snow on the ground; temp., 40°. Red-shouldered Hawk, 1; Crow, 1; Downy Woodpecker, 2; Blue Jay, 4; heard a flock of Chickadees; Golden-crowned Kinglet, 8. Total, 6 species, over 16 individuals.—SAMUEL DOWSE ROBBINS and CHANDLER ROBBINS HUNT.

Belmont, Waverley, Waltham and Lexington (Waverley Oaks Reservation and Rocked Meadow), Mass.—Dec. 26; 10 A.M. to 12.30 P.M. Clear; light west breeze; patches of snow on the ground; temp., about 40°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Northern Flicker, 1; Crow, 4; Tree Sparrow, 8; Chickadee, 12. Total, 6 species, 26 individuals.—SAMUEL DOWSE ROBBINS.

Belmont and Arlington Heights, Mass.—Dec. 27; 9.45 A.M. to 12.30 P.M. Clear; light south breeze; patches of snow on the ground; temp., 38° to 50°. Crow, 6; Downy Woodpecker, 2; Goldfinch, 1; Chickadee, 14; Golden-crowned Kinglet, 10, besides a flock heard. Total, 5 species, over 33 individuals.—SAMUEL D. ROBBINS.

Arlington Heights and Belmont, Mass.—Dec. 28; 9 A. M. to 1.30 P.M. Fair; wind southwest, fresh; ground bare; temp., 45° to 56°. Sharp-shinned Hawk, 1; Northern Flicker, 3; American Crow, 10; Tree Sparrow, 1; Junco, 2; Northern Shrike, 1; Brown Creeper, 1; Chickadee, 17; Golden-crowned Kinglet, 13. Total, 9 species, 49 individuals.—GORDON B. WELLMAN and HORACE W. WRIGHT.

Boston, Mass. (The Arnold Arboretum, Olmsted and Riverway Parks, the Fens, and Charles River, from the Harvard Bridge).—Dec. 23; 9 to 10.30 A.M. Cloudy, followed by copious rain; wind southeast, light; three inches of snow on the ground; temp., 42° to 54°. Dec. 24; 9.45 A.M. to 2.30 P. M. Fair; wind west, fresh; ground bare; temp., 45° to 47°. Great Black-backed Gull, 2; Herring Gull, 135; Black Duck and Red-legged Black Duck, 64; American Golden-eye, 40; American Coot, 2; Ruffed Grouse, 1; Downy Woodpecker, 1; Northern Flicker, 19; Blue Jay, 20; American Crow, 31; American Goldfinch, 2; White-throated Sparrow, 3; Tree Sparrow, 15; Junco, 6; Song Sparrow, 3; White-breasted Nuthatch, 1; Chickadee, 18; Golden-crowned Kinglet, 18. Total, 19 species, 381 individuals.—HORACE W. WRIGHT.

Cambridge, Mass. (Fresh Pond Reservation and Pout Pond Swamp).—Dec. 25; 10 A.M. to 12.30 P.M. Fair; wind southwest, light; ground bare; temp., 34° to 44°. Great Black-backed Gull, 3; Herring Gull, 650; American Merganser, 25; Black Duck, and Red-legged Black Duck, 48; American Coot, 1; Ring-necked Pheasant, 1; American Sparrow Hawk, 2; Downy Woodpecker, 1; Northern Flicker, 5; Blue Jay, 1; American Crow, 6; Red-winged Blackbird, 1; American Goldfinch, 14; Tree Sparrow, 2; Song Sparrow, 6; Brown Creeper, 1; Chickadee, 5. Total, 18 species, 772 individuals.—HORACE W. WRIGHT.

Arnold Arboretum, Jamaica Pond, The Fenway, Charles River Basin.—Dec. 28; 10.30 A.M. to 1 P. M. Weather fine; ground bare; wind southwest; temp., 50°. Great Black-backed Gull, 2; Herring Gull, 100; Black Duck, 50; Golden-eye 10; American Coot, 3; Flicker, 3; Crow, 50; Blue Jay, 10; Red-poll, 8; Goldfinch, 2; White-throated Sparrow, 1; Northern Shrike, 2; Brown Creeper, 12; White-breasted Nuthatch, 6; Chickadee, 50; Golden-crowned Knight, 20; Total, 16 species, 320 individuals.—DAN ABERCROMBIE, BARRON BRAINERD and JOHN B. BRAINERD.

Needham, Mass.—Dec. 21; 8 A.M. to 1.30 P.M. Clear; ground covered with snow; wind west, light; temp., 31°. Downy Woodpecker, 2; Crow, 8; Goldfinch, 19; Tree Sparrow, 26; Junco, 7; Brown Creeper, 2; White-breasted Nuthatch, 1; Chickadee, 29; Golden-crowned Kinglet, 8. Total, 9 species, 102 individuals.—CHARLES E. HEIL.

West Roxbury, Mass.—Dec. 24; 9 A.M. to 12 M. Fair, becoming cloudy; ground

partly covered with snow; wind west, strong; temp., 44°. Downy Woodpecker, 1; Flicker, 4; Blue Jay, 2; Crow, 19; Brown Creeper, 3; White-breasted Nuthatch, 3; Chickadee, 11; Golden-crowned Kinglet, 6. Total, 8 species, 49 individuals.—CHARLES E. HEIL.

Beverley, Mass.—Dec. 25; 9.15 A.M. to 12.30 P.M. Fair; ground bare; temp., 30° to 40°. Great Black-backed Gull, 12; American Herring Gull, (estimated) 125; American Golden-eye, 1; Downy Woodpecker, 1; Crow, 3; Purple Finch, 1; Goldfinch, 13; Tree Sparrow, 12; Chickadee, 8; Golden-crowned Kinglet, 2. Total, 10 species, 178 individuals.—FRANK A. BROWN and C. EMERSON BROWN.

Taunton, Mass.—Dec. 22; 9 A.M. to 1.30 P.M. Ground covered with snow; wind southwest, light; temp., 32°. Downy Woodpecker, 1; Flicker, 2; Blue Jay, 4; Goldfinch, 3; Tree Sparrow, 8; Junco, 82; Song Sparrow, 3; Myrtle Warbler, 4; Chickadee, 10; Golden-crowned Kinglet, 2; Bluebird, 1; Total, 11 species, 120 individuals.—EDITH M. HODGMAN.

Taunton (Rocky Woods), Mass.—Dec. 28; 2.20 to 4.10 P.M. Cloudy; ground bare; wind southwest, mild; temp., 60°. Flicker, 2; Crow, 9; Tree Sparrow, 6; Song Sparrow, 1; White-breasted Nuthatch, 2; Chickadee, 4; at home (city)), Downy Woodpecker, 1; Flicker, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 1. Total, 7 species, 29 individuals.—Mrs. M. EMMA CHACE.

Taunton, Mass.—Dec. 25; 9.30 to 11.45 A.M. Clear; ground bare; wind southwest, light; temp., 36°. Downy Woodpecker, 1; Flicker, 6; Blue Jay, 7; Crow, 7; Goldfinch, 1; Tree Sparrow, 22; Junco, 16; Song Sparrow, 1; Myrtle Warbler, 4; Chickadee, 13. Total, 10 species, 78 individuals.—LUCY B. BLISS.

Glocester, R. I.—Dec. 25; 8 A.M. to 12 M. Clear; ground partly bare; wind west, light; temp., 25°. Downy Woodpecker, 1; Chickadee, 4. Total, 2 species, 5 individuals.—J. IRVING HILL.

Woonsocket, R. I.—Dec. 25; 9.30 to 11.45 A.M. Clear; ground bare except in woods; wind southwest, light; temp., 34° to 42°. Blue Jay, 8; Crow 14; Goldfinch, 25; Tree Sparrow, 5; Junco, 20; Total, 5 species, 72 individuals.—CLARENCE M. ARNOLD.

New London, Conn.—Dec. 26; 10.30 A.M. to 12.45 P.M. Clear; ground bare; wind southwest, light; temp., 40°. Loon, 1; Herring Gull, 6; Crow, 1; Tree Sparrow, 4; Song Sparrow, 6; Myrtle Warbler, 3; Junco, 7; Chickadee, 15; White-breasted Nuthatch, 2; Brown Creeper, 1; Total, 10 species, 46 individuals.—FRANCES M. GRAVES.

New Haven, Conn.—Dec. 24; 8.30 to 11 A.M.; 2.45 to 4.30 P.M. Clear; ground partly snow-covered; wind west, brisk; temp., 42° to 48°. Loon, 3; Great Black-backed Gull, 1; Herring Gull, 75; Old Squaw, 3; White-winged Scoter, 1; Ducks, species about 250; Red-shouldered Hawk, 1; Downy Woodpecker, 3; Blue Jay, 3; Crow, about 30; Starling, 25; Purple Finch, 1; Goldfinch, 4; Tree Sparrow, about 25; Junco, 5; Song Sparrow, 9; Myrtle Warbler, 2; Brown Creeper, 4; White-breasted Nuthatch, 3; Chickadee, 22; Golden-crowned Kinglet, 2. Total, 20 species, 469 individuals.—ALBERT W. HONYWILL, JR.

Hartford Conn.—Dec. 25; 10.45 A.M. to 12.30 P.M. Cloudy; ground snow-covered; wind south, light; temp., 40°. Sparrow Hawk, 1; Downy Woodpecker, 2; Flicker, 1; Blue Jay, 3; Crow, 29; Goldfinch, 2; Tree Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 3. Total, 10 species, 48 individuals.—ALBERT W. HONYWILL, JR.

Momauguin to South End, East Haven, Conn.—Dec. 26; 3.00 to 4.30 P.M. Clear; wind light, west; temp., 44°. Loon, 1; Herring Gull, 31; Red-breasted Merganser, 1; Black Duck, 3; Golden-eye, 14; Old Squaw, 3; White-winged Scoter, 10; Crow, 2; Starling, 30. Total, 9 species, 95 individuals.—A. A. SAUNDERS and D. B. PANGBURN.

Lake Saltonstall, New Haven, Conn.—Dec. 25; 9 A.M. to 1.15 P.M. Clear; ground

nearly bare; wind light, southwest. Herring Gull, 131; Black Duck, 9; Golden-eye, 26; Barred Owl, 1; Downy Woodpecker, 4; Flicker, 1; Blue Jay, 1; Crow, 28; Starling, 16; Tree Sparrow, 27; Field Sparrow, 1; Junco, 12; Song Sparrow, 4; Brown Creeper, 3; Chickadee, 52; Golden-crowned Kinglet, 5; Robin, 2. Total, 17 species, 323 individuals.—A. A. SAUNDERS and CLIFFORD H. PANGBURN.

Westville, Conn.—Dec. 25; 9 A.M. Clear; wind light, southwest; temp., 34°. Downy Woodpecker, 1; White-throated Sparrow, 1; Tree Sparrow, 5; Chickadee, 3. 1.30 to 4 P.M. Red-tailed Hawk, 1; Screech Owl, 1; Downy Woodpecker, 1; Blue Jay, 7; Crow, 4; Starling, 30; Purple Finch, 9; Goldfinch, 7; Tree Sparrow, 3; Junco, 8; Fox Sparrow, 1; Brown Creeper, 1; Chickadee, 12; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 1; Bluebird, 1. Total, 17 species, 75 individuals.—MRS. C. A. DYKEMAN.

New Haven, Conn., along west shore from harbor to Woodmont.—Dec. 25; 9 to 11 A.M. Clear; wind south to southwest; temp., 32°. Herring Gull, 100–200; Old Squaw, 7; White-winged Scoter, 1; Ruddy Duck, (?), 1; Great Blue Heron, 1; Blue Jay, 2; Crow, 27; Starling, 100; Meadowlark, 7; Goldfinch, 3. Total, 10 species, about 300 individuals.—P. L. BUTRICK.

Sand Spit to Colonial Inn Cove, Orange, Conn.—Dec. 24; 9.15 A.M. to 12.30 P.M. Clear; ground nearly bare; wind strong, southwest; temp., 42°. Herring Gull, 393; American Golden-eye, 3; Old Squaw, 12; White-winged Scoter, 1; Horned Lark, 2; Crow, 6; Starling, 10; Tree Sparrow, 1; Song Sparrow, 1; Fox Sparrow, 1; Chickadee, 2. Total, 11 species, 432 individuals.—D. B. PANGBURN, CLIFFORD H. PANGBURN and A. A. SAUNDERS.

Edgewood Park and Mitchell's Hill, New Haven, Conn.—Dec. 25; 9.05 A.M. to 1.10 P.M. Clear till noon; ground nearly bare; wind light, southwest; temp., 30°. Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 10; Crow, 29; Starling, 12; Purple Finch, 8; Goldfinch, 5; Pine Siskin, 2; Tree Sparrow, 18; Field Sparrow, 10; Junco, 3; Song Sparrow, 5; Fox Sparrow, 1; Myrtle Warbler, 1; White-breasted Huthatch, 7; Chickadee, 42; Golden-crowned Kinglet, 2; Robin, 1; Bluebird, 1; Total, 20 species, 163 individuals.—D. B. PANGBURN.

New Haven, Conn., (Pine Rock).—Dec. 25; 11.15 A.M. to 12.15 P.M. Partly cloudy; ground patched with snow; wind southwest, light; temp., 40°. Downy Woodpecker, 2; Crow, 7; English Starling, 2; Junco, 8; Chickadee, 5. Total, 5 species, 24 individuals.—HAROLD M. FOWLER.

Bristol, Conn.—Dec. 25; 8.30 A.M. to 12 M. Clear; calm, then cloudy; 43°; northwest light breeze at noon; ground covered, old crusty snow nearly bear one's weight; temp., 22°. Sparrow Hawk, 1; Downy Woodpecker, 1; Blue Jay, 5; Crow, 3; Goldfinch, 1; Tree Sparrow, 7; White-breasted Nuthatch, 2; Chickadee, 15. Total, 8 species, 35 individuals.—FRANK BRUEN.

South Norwalk, Conn.—Dec. 25; 8 A.M. to 3 P.M. Weather clear; warm; ground bare, no frost. Herring Gull, 40; Downy Woodpecker, 4; Blue Jay, 11; Crow, 12; Starling, 40; Goldfinch, 2; Purple Finch, 2; White-throated Sparrow, 1; Tree Sparrow, 21; Junco, 2; White-breasted Nuthatch, 4; Chickadee, 26; Brown Creeper, 2; Robin, 1; Bluebird, 3. Total, 15 species, 171 individuals.—WILBUR F. SMITH and REDDINGTON DAYTON.

Fredonia, Chaut. Co., N. Y.—Dec. 25; 2 to 4.30 P.M. sky cloudy; ground bare; moderate east wind; temp., 55°. A tramp of nearly six miles and the only living creatures seen were two English Sparrows down by Willowbrook Golf Club, showing how northern Chautauqua has been cleared of winter birds. I met eight small boys with guns.—MRS. T. C. CHATSEY.

Rochester, N. Y., to Dugway.—Dec. 25; 9.30 A.M. to 12 M. Cloudy; ground covered with snow; wind southeast, light; temp., 32°. Herring Gull, 7; Downy Woodpecker,

1; Crow, 21; Tree Sparrow, 30; Song Sparrow, 4; Swamp Sparrow, 1; White-breasted Nuthatch, 1. Total, 7 species, 65 individuals.—NETTIE SELLINGER PIERCE.

Central Valley, Orange Co., N. Y.—Dec. 25; 9 to 11.30 A.M. Cloudy; wind south, light; considerable snow; temp., 30°. Downy Woodpecker, 1; Blue Jay, 1, others heard; Crow, 6; Tree Sparrow, 1; Shrike, 1; White-breasted Nuthatch, 2; Chickadee, 2. Total, 7 species, 14 individuals.—MARY VAN E. FERGUSON.

Bronxville, N. Y.—Dec. 25; 8 A.M. to 5 P.M. Clear in morning, partly cloudy in afternoon; wind west, light and increasing; temp., 45°. Crow, 1; Starling, 7. Total, 2 species, 8 individuals.—A. B. GURLEY.

Pelham Manor, N. Y.—Dec. 25; 9 A.M. to 1 P.M. Clear; no wind; ground bare; temp., at 7.30, 31°. Herring Gull, 80; Bob-white, 10; Downy Woodpecker, 1; Blue Jay, 2; American Crow, 20; Starling, 1; Junco, 25; Song Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch, 4; Chickadee, 6; Golden-crowned Kinglet, 5. Total, 12 species, 158 individuals.—ROBERT CRANE.

Central Park, New York City.—Dec. 25; 12.15 to 1.20 P.M. Slightly cloudy; light, southwesterly breeze; temp., 50°., Herring Gull, 2; Downy Woodpecker, 1; Starling, 7; White-throated Sparrow, 3; Junco, 4; Cardinal, 1; Chickadee, 3. Total, 7 species, 21 individuals.—CLARENCE C. ABBOTT.

Central Park, New York City.—Dec. 25; 8.25 to 10.40 A.M. Ramble, 1 to 1.45 P.M., North End. Clear; ground bare; wind west, light; temp., 37° at start. Herring Gull, 300; Downy Woodpecker, 3; Flicker, 1; Starling, 100; Junco, 3; Song Sparrow, 1; Cardinal, 5; Brown Thrasher, 1; White-breasted Nuthatch, 1; Chickadee, 6. Total, 10 species, 421 individuals.—GEORGE E. HIX.

Battery, New York City, to 17 Fathoms (10 miles off Seabright, N. J.) and back.—Dec. 25; 8.25 A.M. to 4.15 P.M. Clear; wind southwest, light; temp., 44° at noon. Loon, 1; Kittiwake, 1; Glaucous Gull, 2; Black-backed Gull, 6; Herring Gull, 10,000; Ring-billed Gull, 2; Bonaparte Gull, 25; Old Squaw, 21. Total, 8 species, about 10,060 individuals.—R. E. STACKPOLE, A. C. REDFIELD and C. H. ROGERS.

Rockaway Park to Point and back, New York City.—Dec. 27; 10.20 A.M. to 4.10 P.M. Partly cloudy; ground bare; wind southwest, brisk; temp., 45° at start, 42° at return Black-backed Gull, 5; Herring Gull, 300; Ring-billed Gull, 1; Double-crested Cormorant, 1; Old Squaw, 7; Crow, 1; Horned Lark, 20; Snowflake, 75; Tree Sparrow, 1; Myrtle Warbler, 8; American Pipit, 2. Total, 11 species, about 420 individuals.—A. C. REDFIELD and C. H. ROGERS.

College Point to Long Beach, Long Island.—Dec. 29; 7.15 A.M. to 5 P.M. Clear; ground bare; practically no wind; temp., 31° at start, 44° at 4 P.M. Herring Gull, 1,000; Marsh Hawk, 3; Red-shouldered Hawk, 2; Broad-winged Hawk, 1; Sparrow Hawk, Hawk, 2; Downy Woodpecker, 2; Horned Lark, 75; Prairie Horned Lark, 50; Blue Jay, 4; Crow, 50; Starling, 500; Meadowlark, 14; White-throated Sparrow, 2; Tree Sparrow, 50; Junco, 2; Song Sparrow, 10; Chickadee, 4; Hermit Thrush, 1; Robin, 1. Total, 19 species, 1,773 individuals.—CLINTON G. ABBOTT and FRANCIS HARPER.

Mt. Sinai, Long Island, N. Y.—9.30 A.M. until dark. Ground bare; sky somewhat overclouded; moderate west by southwest wind; temp., 45° to 57°. Horned Grebe, 3; Loon, 5; Red-throated Loon, 2; Great Black-backed Gull, 3; Herring Gull, 500; Red-breasted Merganser, 2; Black Duck, 6; Old Squaw, 41; White-winged Scoter, 18; Surf Scoter, 8; Red-shouldered Hawk, 1; Horned Lark, 30; Blue Jay, 4; Crow, 90; Starling, 6; Meadowlark, 1; Goldfinch, 2; Snow Bunting, 25; Tree Sparrow, 6; Junco, 30; Song Sparrow, 2; Winter Wren, 1; Myrtle Warbler, 7; White-breasted Nuthatch, 1; Chickadee, 45. Country visited:—Sound Beach, salt meadows, second-growth deciduous woods, upland fields and red cedar woods. Total, 25 species, 838 individuals.—GERTRUDE A. WASHBURN and ROBERT CUSHMAN MURPHY.

Setauket, Long Island, N. Y.—Dec. 25; All day. Weather fair; wind south. Her-

ring Gull, 300; Old Squaw, 52; Shell Drake, 1; Coot, 79; Horned Lark, 29; Crow, 16; Chickadee, 8. Total, 7 species, 485 individuals.—RUSSEL W. STRONG.

Greenport, L. I.—Dec. 25; 2 to 4.45 P.M. Partly cloudy; light, west wind; Horned Grebe, 4; Loon, 2; Herring Gull, 75; Black Duck, 200; Scaup Duck, 4; Old Squaw, 100; American Scoter, 7; White-winged Scoter, 8; American Golden-eye, 26; Bob-white, 1; Downy Woodpecker, 1; Horned Lark, 50; Meadowlark, 2; Goldfinch, 6; White-throated Sparrow, 3; Tree Sparrow, 1; Song Sparrow, 20; Junco, 2; Myrtle Warbler, 100; Winter Wren, 1; Chickadee, 20; Robin, 10. Total, 23 species, 644 individuals.—K. B. SQUIRES.

Orient Point, Long Island. Dec. 22; 6.30 A.M. to 5 P.M. Clear; fresh, southwest wind; ground bare, slightly frozen in morning; temp., 30° to 40°. Horned Grebe, 34; Holboell's Grebe, 1; Loon, 28; Red-throated Loon, 4; Kittiwake Gull, 300; Great Black-backed Gull, 5; Herring Gull, 538; Ring-billed Gull, 2; Bonaparte's Gull, 7; Red-breasted Merganser, 18; Black Duck, 3; Redhead, 1; American Scaup Duck, 55; Lesser Scaup Duck, 2; American Golden-eye, 3; Bufflehead, 11; Old Squaw, 595; American Scoter, 7; White-winged Scoter, 51; Surf Scoter, 108; Bob-white, 10; Turkey Vulture, 1; Marsh Hawk, 2; Sharp-shinned Hawk, 1; Cooper's Hawk, 1; Red-shouldered Hawk, 1; Screech Owl, 1; Downy Woodpecker, 6; Flicker, 26; Horned Lark, 500; Prairie Horned Lark, 5; Blue Jay, 3; American Crow, 362; Fish Crow, 2; Starling, 31; Meadowlark, 154, (two singing); Crossbill, 1; Goldfinch, 2; Pine Siskin, 5; Snowflake, 55; Lapland Longspur, 1; Tree Sparrow, 82; Junco, 2; Song Sparrow, 33; Fox Sparrow, 1; Northern Shrike, 1; Myrtle Warbler, 155; Chickadee, 126; Golden-crowned Kinglet, 39; Robin, 8. Total, 50 species, 2,708 individuals. Country visited:—Shores of Long Island Sound, Orient and Gardiner's Bay, hills, orchards, hardwood forests, cedar groves, swamp, salt marshes, ploughed fields and pastures. The Turkey Vulture was captured on the ground in a choking condition. Large bones were wedged firmly in the throat, these were released and the bird offered stale fish which it ate greedily; but evidently the stomach was weak from fasting and the food was immediately disgorged. The following morning the bird was dead.—HARRY, FRANK and ROY LATHAM.

One Hundred and Thirtieth Street Ferry, New York, to Coytesville, South Englewood, Leonia and Palisades Park, N. J.—Dec. 22; 9.45 A.M. to 4.30 P.M. Clear; ground mostly bare; wind southwest, light; temp., 35° at start. Herring Gull, 500; Red-tailed Hawk, 7; Sparrow Hawk, 2; Hairy Woodpecker, 1; Blue Jay, 1; Crow, 7; Starling, 35; Meadowlark, 1; Purple Finch, 1; Tree Sparrow, 10; Junco, 42; Song Sparrow 3; Winter Wren, 2; Chickadee, several. Total, 14 species, about 620 individuals.—G. E. HIX and C. H. ROGERS.

Bloomfield and Newark, N. J.—Dec. 25; 9 A.M. to 2 P.M. Clear; ground bare; wind southwest, light; temp., 30° to 46°. Herring Gull, 2; Sharp-shinned Hawk, 1; Crow, 3; Starling, 92; White-throated Sparrow, 6; Tree Sparrow, 7; Song Sparrow, 3; Goldfinch, 2. Total, 8 species, 116 individuals.—LOUIS S. KOHLER.

Passaic, N. J.—Dec. 25; 9.30 A.M. to 12 M.; 2 to 4.30 P.M. Clear; ground bare; wind south, light; temp., 36°. Downy Woodpecker, 3; Blue Jay, 7; Crow, 5; Purple Grackle, 200; Starling, 107; Goldfinch, 1; Tree Sparrow, 15; Junco, 12; Song Sparrow, 1; Myrtle Warbler, 6; Brown Creeper, 2; White-breasted Nuthatch, 4; Chickadee, 16. Total, 13 species, 380 individuals.—GILBERT H. TRAFTON and EDWARD UEHLING.

Morristown, N. J.—Dec. 25; 9 to 11 A.M. Fair; ground partly bare, with some patches of snow; wind west, light; temp., 45°. Red-shouldered Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Blue Jay, 13; Crow, 25; Starling, 1; Purple Finch, 4 (1 singing); Goldfinch, 2; Tree Sparrow, 12; Song Sparrow, 2; Junco, 2; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 19; Golden-crowned Kinglet, 16. Total, 15 species, 106 individuals.—R. C. CASKEY.

Trenton, N. J.—Dec. 25; 10 A.M. to 12 M. Fair; wind southwest; temp., 40°. Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 20; Crow, 9; Goldfinch, 10; Tree Sparrow, 2; Junco, 10; Song Sparrow, 4; Cardinal, 3; Brown Creeper, 8; Chickadee, 12; Golden-crowned Kinglet, 20. Total, 12 species, 83 individuals.—W. L. DIX.

Moorestown, N. J.—Dec. 25; 6.37 A.M. to 12.45 P.M. and 2 to 6.15 P.M. Clear; ground bare; wind west, southwest, becoming fresh; temp., 32°. Herring Gull, 5; Red-shouldered Hawk, 1; Hairy Woodpecker, 3; Flicker, 3; Meadowlark, 33; Tree Sparrow, 17; Towhee, 1; Winter Wren, 2; Tufted Titmouse, 5; Turkey Vulture, 7; Sparrow Hawk, 3; Downy Woodpecker, 5; Blue Jay, 19; Goldfinch, 4; Junco, 29; Cardinal, 4; Brown Creeper, 1; Chickadee, 8; Red-tailed Hawk, 3; Screech Owl, 1; Red-headed Woodpecker, 2; Crow, about 500; White-throated Sparrow, 2; Song Sparrow, 16; Carolina Wren, 1; White-breasted Nuthatch, 3. Total, 26 species, about 678 individuals.—WILLIAM B. EVANS.

Newfield, N. J.—Dec. 25; 10 A.M. to 3.30 P.M. Clear; wind south, light at starting out becoming brisk later; ground bare; temp., at start 40° at return, 47°. Crow, 3; Blue Jay, 3; Meadowlark, 1; Tree Sparrow, 10; Junco, 7; Chickadee, 6; Golden-crowned Kinglet, 4. Total, 7 species, 34 individuals.—WM. W. FAIR.

Hackettstown, N. J.—Dec. 25; 8.15 to 11.35 A.M. and 2.20 to 4.50 P.M. Foggy in morning; mostly clear in afternoon; light, southeast wind; temp., 38° at 8.15 A.M. Downy Woodpecker, 1; Flicker, 1; Blue Jay, 2; Crow, 116; Purple Finch, 6; Tree Sparrow, 12; Junco, 2; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 2; Kingfisher, 1; Total, 11 species, 146 individuals.—MARY PIERSON ALLEN.

Ocean Grove, N. J.—Dec. 27; 9 A.M. to 12 M. Clear; ground bare; wind south, brisk; temp., 45° to 50°. Herring Gull, 20; Downy Woodpecker, 1; Song Sparrow, 2; Junco, 7; Myrtle Warbler, 15. Total, 5 species, 45 individuals.—EMMA VAN GILLUWE.

Pensauken Township, Camden County, N. J.—Dec. 25; 10.45 A.M. to 4 P.M. Clear; ground bare; wind southwest, strong; temp., 48°. Herring Gull, 57; Dove, flock of 36; Red-tailed Hawk, 2; Sparrow Hawk, 3; Crow, 400; Fish Crow, 1; White-throated Sparrow, 16; Tree Sparrow, 14; Junco, 8; Song Sparrow, 8; Fox Sparrow, 1; Cardinal, 4; Winter Wren, 1; Tufted Titmouse, 2; Chickadee, 1; Robin, 1; Golden-crowned Kinglet, 4. Total, 17 species, 559 individuals.—RICHARD F. MILLER.

Easton, Pa.—Dec. 25; 7.20 to 11 A.M. To 9.40 cloudy, then clear; wind northwest, light, ground bare; temp., 32°. at start, 57° at return. Hairy Woodpecker, 1; Northern Downy Woodpecker, 1; Crow, 5; Purple Finch, (heard); Tree Sparrow, 7; Junco, 27; Song Sparrow (heard); Winter Wren, 1; Chickadee, 2; Golden-crowned Kinglet, 2. Total, 10 species, 46 individuals.—EDWARD J. F. MARX.

Frankford, Philadelphia County, Pa.—Dec. 24; 8.30 A.M. to 4.30 P.M. Clear; ground bare; wind west, strong; temp., 44°. Herring Gull, 12; Sparrow Hawk, 2; Hairy Woodpecker, 1; Flicker, 1; Crow, 13; Fish Crow, 2; White-throated Sparrow, 1; Tree Sparrow, 11; Junco, 30; Song Sparrow, 6; Cardinal, pair; White-breasted Nuthatch, 2; Tufted Titmouse, 1. Total, 13 species, 84 individuals.—RICHARD F. MILLER.

Fairmount Park, Philadelphia, Pa.—Dec. 26; 11 A.M. to 3.45 P.M. Clear; "an April day in December"; ground bare and unfrozen; wind northwest, calm, hardly perceptible; temp., 45°. Herring Gull, 3; American Merganser, 86; Red-breasted Merganser, 10; Greater Scaup Duck, 26; American Golden-eye, 12; Dove, 3; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 2; Flicker, 1, (calls); Crow, 36; White-throated Sparrow, 2; Tree Sparrow, 1; Junco, 3; Song Sparrow, 5; Fox Sparrow, 1; Cardinal, 7; Winter Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 7; Chickadee, 11; Golden-crowned Kinglet, 10. Total, 22 species, 220 individuals.—RICHARD F. MILLER.

Chestnut Hill, Pa.—Dec. 25; 9.15 to 11 A.M. Clear; ground bare; wind southeast,

light; temp., 33°. Herring Gull, 1; American Merganser, 5; Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Crow, 9; Junco, 100; Goldfinch, 5; Tree Sparrow, 3; White-throated Sparrow, 1; Cardinal, 8; Winter Wren, 2; White-breasted Nuthatch. Total, 12 species, 140 individuals.—HELEN M. KRUGER.

Kennett Square, Pa.—Dec. 25; 10.30 A.M. to 12.30 P.M. Wind fresh, southwest; few clouds; temp., 44°. Dove, 1; Turkey Buzzard, 3; Red-tail Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Flicker, 2; Crow, 21; White-throated Sparrow, 4; Tree Sparrow, 45; Junco, 8; Song Sparrow, 4; Cardinal, 1. Total, 12 species, 92 individuals. —C. J. PENNOCK.

Chestnut Hill, Pa.,(along the Cresheim Creek).—2.20 to 5 P.M. Cloudy; ground patched with melting snow; wind west, quite still; temp., 40°. Downy Woodpecker, 1; Crow, 3, Cardinal, 7; Junco, (some in song) 40; White-throated Sparrow, 2; Song Sparrow, 4; Field Sparrow, 1; Tree Sparrow, (in song), 20; Myrtle Warbler, 1; Carolina Wren, 1; Winter Wren, 1; Chickadee, 3. Total, 12 species, 94 individuals.—GEORGE LEAR.

Doylestown, Pa.—12 M. to 2.15 P.M. Clear; ground patched with melting snow; wind southwest, very light; temp., 45°. Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 1; Purple Finch, (one in half-song), 4; Junco, 10; White-throated Sparrow, 2; Song Sparrow, 2; Tree Sparrow, 35; Brown Creeper, 2; White-bellied Nuthatch, 2; Tufted Titmouse, 5; Chickadee, (one in song), 3; Golden-crowned Kinglet, 1. Total, 13 species, 70 individuals.—GEORGE LEAR.

Fairmount Park, Philadelphia, Pa.—Dec. 21; 9.15 A.M. to 4.45 P.M. Weather fine; light snow in patches; wind light, changing to moderate northwest; temp., 35° at start, 44° on return. American Merganser, about 100; Red-shouldered Hawk, 1; Sparrow Hawk, 2; Downy Woodpecker, 7; Flicker, 1; American Crow, about 25; Fish Crow, 2; White-throated Sparrow, 10 (singing); Junco, 15; Song Sparrow, 10 (singing); Cardinal, 15; Carolina Wren, 1 (singing); Brown Creeper, 4; White-breasted Nuthatch, 5; Chickadee, 5. Total, 15 species, about 200 individuals.—A. C. REDFIELD and L. S. PEARSON.

Radnor Township, Delaware County, Pa.—Dec. 24; 8.30 A.M. to 5 P.M. Weather fine; ground bare; wind high, northwest; temp., 45° at start, 50° on return. Red-tailed Hawk; Red-shouldered Hawk, 1; Sparrow Hawk, 4; Hairy Woodpecker, 1; Downy Woodpecker, 3; Crow, 108; Purple Finch, 3; Goldfinch, 1; White-throated Sparrow, 1; Tree Sparrow, about 25; Junco, 21; Song Sparrow, 7; Cardinal, 7; Carolina Wren, 1; Winter Wren, 3; Brown Creeper, 3; Chickadee, 3. Total, 17 species, about 190 individuals.—LEONARD S. PEARSON.

Radnor Township, Delaware County, Pa.—Dec. 22; 8.30 A.M. to 4.30 P.M. Clear; ground bare, except for few small patches of snow; wind west, moderate; temp., 32° at start. Red-tailed Hawk, 3; Belted Kingfisher, 1; Downy Woodpecker, 5; Flicker, (heard); Crow, 50; White-throated Sparrow, 2; Tree Sparrow, 60; Junco, 30; Song Sparrow, 4; Cardinal, 4; Carolina Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 2 (singing); Chickadee, 16; Bluebird, 1. Total, 16 species, 182 individuals.—ALFRED C. REDFIELD.

West Chester, Pa.—Dec. 25; 9 A.M. to 12.30 P.M. Clear; ground bare; light, southwest wind; temp., about freezing, on return about 40°. Goshawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Crow, 33; Tree Sparrow, 15; Junco, 26; Song Sparrow, 10; Titlark, 1; Chickadee, 9; Golden-crowned Kinglet, 2. Total, 10 species, 99 individuals.—S. C. SCHMUCKER and C. E. EHINGER.

Delaware County, Pa.—Dec. 25; walk of some ten miles through Marple and Haverford Townships; 9.30 A.M. to 3.30 P.M. Clear; ground bare; wind southwest, almost none at start but springing into a good breeze toward noon; temp., 34°. Red-tailed Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 6; Crow, 37; Goldfinch, 1;

White-throated Sparrow, 3; Tree Sparrow, 44; Junco, 17; Song Sparrow, 16; Cardinal, 2. Total, 10 species, 128 individuals. Many sunny hillsides and alder thickets were visited but birds were unusually scarce.—B. W. GRIFFITHS and CHRESWELL J. HUNT.

Bellefonte, Pa.—Dec. 25; 10 to 10.30 A.M. Cloudy; light snow on ground; wind west, light; temp., 40°. Feeding upon suet fastened to a tree and seen from my window were Downy Woodpeckers, 2; Tufted Titmouse, 2; White-breasted Nuthatch, 2. I saw Chickadees and Kinglets feeding there also a few days before.—ANNA J. VALENTINE.

Lititz, Pa. (**Upper waters of Hammer Creek, Northern Lancaster County.**)—Dec. 22; 10 A.M. to 5 P.M. Clear; ground covered with snow; wind, none; temp., 35°. Turkey Buzzard, 27; Sparrow Hawk, 3; Red-tailed Hawk, 4; Screech Owl, 1; Downy Woodpecker, 3; Crow, 1,100; Junco, 65; Tree Sparrow, 70; Song Sparrow, 6; Cardinal, 9; White-breasted Nuthatch, 3. (The absence of Chickadees and Titmice is remarkable). Total, 13 species, 1,300 individuals.—HERBERT H. BECK.

Berwyn, Pa.—Dec. 25; 9 A.M. to 12.15 P.M. and 1.30 to 3.45 P.M. Clear in the morning, but cloudy in the afternoon; ground bare; wind west at start, southwest at return, light in morning but strong in afternoon; temp., 40°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Crow, 30; Purple Grackle, 1; Junco, 45; Tree Sparrow, 40; Song Sparrow, 2; White-throated Sparrow, 6; Cardinal, 2; Winter Wren, 1; Chickadee, 8; White-breasted Nuthatch, 1. Total, 12 species, 138 individuals.—JOHN B. GILL.

Columbia, Lancaster Co., Pa.—Dec. 25; 8.30 to 11.30 A.M. Clear; fair; temp., 45°. Hairy Woodpecker, 1; Downy Woodpecker, 2; American Crow, 100; Tree Sparrow, 10; Chipping Sparrow, 8; Junco, 23; Song Sparrow, 2. Total, 7 species, 146 individuals.—WM. M. FLANAGAN and WM. ROCHOW.

Springs, Somerset Co., Pa.—Dec. 25; 9.45 A.M. to 12.10 P.M. Clear; ground snow-covered; wind southwest to west; temp., 31° to 42°. Downy Woodpecker, 2; Crow, 6; American Goldfinch, 1; Tree Sparrow, 2; Junco, 6; Song Sparrow, 2; White-breasted Nuthatch, 2; Chickadee, 3; Golden-crowned Kinglet, 3. Total, 9 species, 27 individuals.—ANSEL L. MILLER.

From Paoli to Wayne, Pa., including parts of Willistown and Easttown Townships in Chester County and parts of Newtown and Radnor Townships in Delaware County.—Dec. 28; 8.45 A.M. to 5.30 P.M. Weather fair; ground bare; wind moderate, southwest; temp., 46° at start, 55° on return. Turkey Vulture, 3; Red-tailed Hawk, 2; Red-shouldered Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 2; Crow, about 125; Goldfinch, 10; White-throated Sparrow, 1; Tree Sparrow, about 65; Junco, 7; Song Sparrow, 7; Cardinal, 6; Winter Wren, 1; Brown Creeper, 10; White-breasted Nuthatch, 10; Tufted Titmouse, 6; Chickadee, 15; Golden-crowned Kinglet, 3. Total, 18 species, about 280 individuals.—JOHN S. PATTON and LEONARD S. PEARSON.

Allegheny, Pa., West View.—Dec. 21; 9 A.M. to 1 P.M. Cloudy; wind northwest to southwest, variable; about three inches of snow; temp., 30° to 36°. Sparrow Hawk, 1; Screech Owl, 1; Hairy Woodpecker, 2; Northern Downy Woodpecker, 7; Crow, (heard calling); Goldfinch, 1; Tree Sparrow, 35; Chipping Sparrow, 1; Junco, 30; Song Sparrow, 8 (singing); Cardinal, 2 (singing); Carolina Wren, 2; Winter Wren, 4; Brown Creeper, 11; White-breasted Nuthatch, 15; Tufted Titmouse, 12; Chickadee, 15; Golden-crowned Kinglet, 6. Total, 18 species, 153 individuals.—WM. G. PITCAIRN.

Pittsburg, Pa., (**McKinley Park**).—Dec. 25; 9 A.M. to 12 M. Cloudy; ground bare, soft; wind southwest, strong; temp., 38°. Downy Woodpecker, 1; Song Sparrow, 1; Carolina Wren, 1. Total, 3 species, 3 individuals.—MILO H. MILLER.

Lewes, Del.—Dec. 28; 7.30 A.M. to 5 P.M. Weather fair; wind southwest; temp., 50° to 60°. Herring Gull, 8; Hooded Merganser, 4; Black Duck, 130; White-winged Scoter, 5; Turkey Buzzard, 89; Marsh Hawk, 1; Sharp-shinned Hawk, 1; Sparrow

Hawk, 3; Downy Woodpecker, 2; Flicker, 3; Crow, 406; Red-winged Blackbird, 65; Cowbird, 14; Purple Grackle, 6; Meadowlark, 44; Snow Bunting, 29; Purple Finch, 4; Goldfinch, 22; Pine Finch, 2; Savanna Sparrow, 5; Ipswich Sparrow, 2; Song Sparrow, 12; Swamp Sparrow, 5; Junco, 34; Tree Sparrow, 15; Field Sparrow, 1; White-throated Sparrow, 8; Cardinal, 2; Towhee, 1; Myrtle Warbler, 50; American Pipit, 18; Carolina Wren, 1; Red-breasted Nuthatch, 1; Carolina Chickadee, 12; Brown Creeper, 1; Golden-crowned Kinglet, 19; Robin, 26. Total, 37 species, 1,051 individuals.—C. J. PENNOCK and SPENCER TROTTER, M.D.

Summerville, S. C.—Dec. 25; 7.15 to 8.30 A.M., 9.30 A.M. to 2.20 P.M. and 3.20 to 6 P.M. Clear; ground bare; wind northwest, very light; temp., 40°. Bob-white, 2; Mourning Dove, 4; Turkey Vulture, 30; Black Vulture, 1; Marsh Hawk, 1; Red-tailed Hawk, 1; Southern Hairy Woodpecker, 7; Southern Downy Woodpecker, 10; Red-cockaded Woodpecker, 10; Yellow-bellied Sapsucker, 1; Red-bellied Woodpecker, 8; Flicker, 40; Phoebe, 9; Blue Jay, 18; American Crow, 50; Fish Crow, 4; Cowbird, 3; Red-winged Blackbird, 4; Meadowlark, 60; Rusty Blackbird, 60; Purple Finch, 2; American Goldfinch, 14; Vesper Sparrow, 120; Grasshopper Sparrow, 2; White-throated Sparrow, 80; Field Sparrow, 30; Junco, 30; Song Sparrow, 56; Fox Sparrow, 1; Towhee, 22; Cardinal, 32; Pine Warbler, 7; Myrtle Warbler, 80; American Pipit, 40; Mockingbird, 19; Catbird, 1; Brown Thrasher, 2; Carolina Wren, 20; Winter Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 12; Brown-headed Nuthatch, 29; Tufted Titmouse, 42; Carolina Chickadee, 30; Ruby-crowned Kinglet, 16; Robin, 60; Blue-bird, 34. Total, 47 species, 1,107 individuals.—WILLIAM M. NORRIS, JR.

Melrose, Florida.—Dec. 25; 7 to 11 A.M. Clear; ground bare; wind southwest, light; temp., 58°. Pied-billed Grebe, 85; Mallard, 22; Pintail, 65; Ring-necked Duck, 250; American Bittern, 2; Great Blue Heron, 8; Little Blue Heron, 3; American Coot, 50; Florida Bob-white, 20; Ground Dove, 27; Turkey Vulture, 18; Southern Hairy Woodpecker, 3; Southern Downy Woodpecker, 8; Yellow-bellied Sapsucker, 12; Red-bellied Woodpecker, 10; Flicker, 10; Phoebe, 7; Blue Jay, 120; Meadowlark, 6; Goldfinch, 4; Vesper Sparrow, 65; Savanna Sparrow, 20; Chipping Sparrow, 17; Towhee, 35; Cardinal, 50; Loggerhead Shrike, 3; White-eyed Vireo, 26; Myrtle Warbler, 17; Mockingbird, 30; Catbird, 7; Brown Thrasher, 15; House Wren, 2; Hermit Thrush, 4; Robin, 40; Bluebird, 75. Total, 35 species, 1,145 individuals.—REV. WALTER I. ECK.

Warrington, Florida.—Dec. 25; 7.30 to 11 A.M. Clear; ground bare; light, northwest breeze; temp., 56°. Horned Grebe, 4; Herring Gull, 9; Turkey Buzzard, 2; Phoebe, 3; Florida Blue Jay, 2; White-throated Sparrow, 1; Cardinal, 2; Myrtle Warbler, 11; Water Thrush, 5; Mockingbird, 2; Short-billed Marsh Wren, 4; Ruby-crowned Kinglet, 5; Blue-gray Gnatcatcher, 9. Total, 13 species, 59 individuals.—F. M. BENNETT.

Palma Sola, Fla.—Dec. 25; all day. Clear; wind northeast to northwest. Pied-billed Grebe, 2; Loon, 2; Herring Gull, 200; Laughing Gull, 150; Royal Tern, 175; Black Skimmer, 20; Florida Cormorant, 200; Brown Pelican, 250; Great Blue Heron, 3; Louisiana Heron, 14; Little Blue Heron, 6; Black-bellied Plover, 3; Killdeer, 4; Semipalmated Plover, 12; Florida Bob-white, 24; Turkey Vulture, 20; Marsh Hawk, 1; Osprey, 2; Bald Eagle, 3; Barn Owl, 1; Great Horned Owl, 2; Belted Kingfisher, 2; Red-bellied Woodpecker, 4; Southern Flicker, 6; Phoebe, 3; Blue Jay, 10; Meadowlark, 5; White-eyed Towhee, 8; Cardinal, 4; Loggerhead Shrike, 1; Blue-headed Vireo, 2; Myrtle Warbler, 100; Oven-bird, 2; Southern Yellow-throat, 5; Mockingbird, 6; Catbird, 4; Marian's Marsh Wren, 2; Ruby-crowned Kinglet, 2; Blue-gray Gnatcatcher, 5; American Robin, 160; (on the 21st, about 4,000 Robins passed overhead). Total, 41 species, 1,475 individuals.—ELEANOR P. EARLE.

Palma Sola, Fla.—Dec. 25; all day. Pied-billed Grebe, 1; Loon, 3; Herring Gull, 10; Laughing Gull, 10; Royal Tern, 5; Black Skimmer, 4; Florida Cormorant, 30;

Brown Pelican, 40; Great Blue Heron, 2; Louisiana Heron, 16; Black-bellied Plover, 3; Killdeer, 2; Semipalmated Plover, 8; Bob-white, 25; Mourning Dove, 100; Marsh Hawk, 1; Turkey Vulture, 30; Black Vulture, 6; American Osprey, 2; Bald Eagle, 1; Barn Owl, 1; Great Horned Owl, 2; Belted Kingfisher, 2; Southern Flicker, 2; Phoebe, 2; Blue Jay, 10; Cardinal 1; White-eyed Towhee, 3; Meadowlark, 1; Maryland Yellow-throat, 2; Myrtle Warbler, 60; Yellow-throated Warbler, 2; Blue-head Vireo, 2; Blue-gray Gnatcatcher, 12; Catbird, 14; Mockingbird, 8; Ruby-crowned Kinglet, 1; American Robin, 200. Total, 38 species, 624 individuals.—CARLOS EARLE.

Apalachicola, Florida.—Dec. 25; Near Apalachicola Bay; 6.40 to 8 A.M. Clear; very light, north wind; temp., 45°. On Apalachicola Bay; 10.30 A.M. to 1 P.M. Clear; northeast wind; temp., about 60°. Herring Gull, 24; Florida Cormorant (?), 12; Wilson's Snipe, 1; Killdeer, 11; Pelican, 32; Great Blue Heron, 1; Turkey Vulture, 1; Ground Dove, 1; Phoebe, 2; Prairie Horned Lark, 30; Fish Crow, 39; Red-winged Black-bird, 17; Boat-tailed Grackle, 3; Goldfinch, 50; Myrtle Warbler, 3; Palm Warbler, 18; Mockingbird, 6; Golden-crowned Kinglet, 5. Total, 18 species, 256 individuals.—MR. and MRS. G. CLYDE FISHER.

Deemer, Miss.—Dec. 25; 9.30 to 12 M. Clear; sunny; ground bare; no wind; temp., 48° in morning, 68° at noon. Killdeer, 4; Bob-white, 9; Turkey Buzzard, 5; Sparrow Hawk, 1; Barn Owl, 1; Kingfisher, 1; Southern Downy Woodpecker, 2; Southern Hairy Woodpecker, 1; Red-headed Woodpecker, 20; Red-bellied Woodpecker, 3; Yellow-bellied Sapsucker, 2; Flicker, 3; Phoebe, 2; Florida Blue Jay, 9; Crow, 2; Purple Grackle; 500, Rusty Blackbird, 13; Meadowlark, 7; Goldfinch, 14; Pine Siskin, 3; Field Sparrow, 13; Junco, 13; White-throated Sparrow, 26; Song Sparrow, 1; Towhee, 12; Cardinal, 5; Loggerhead Shrike, 1; Myrtle Warbler, 8; Pine Warbler, 6; Louisiana Water Thrush, 1; White-breasted Nuthatch, 1; Brown-headed Nuthatch, 1; Tufted Titmouse, 30; Chickadee, 10; Brown Thrasher, 2; Mockingbird, 1; Winter Wren, 11; Carolina Wren, 4; Bewick's Wren, 1; Golden-crowned Kinglet, 3; Ruby-crowned Kinglet, 2; Brown Creeper, 1; Hermit Thrush, 1; Bluebird, 7. Total, 44 species, 753 individuals.—MRS. F. E. WATROUS.

Knoxville, Tenn.—Dec. 26; 8 A.M. to 3.30 P.M. Clear; ground bare; wind southwest, very light; temp., 34° to 47°. Turkey Buzzard, 1; Flicker, 4; Phoebe, 1; Crow, 30; Blue Jay, 3; Junco, 12; Song Sparrow, 1; Wren, 4; Titmouse, 3; Bluebird, 6. Total, 10 species, 67 individuals.—MAGNOLIA WOODWARD.

Versailles, Kentucky.—Dec. 24; 10 A.M. to 12 M. Sun shining part of time; ground bare and soft; wind west, light; temp., 42°. Black Vulture, 1; Hairy Woodpecker, 3; Downy Woodpecker, 2; Red-bellied Woodpecker, 3; Flicker, 3; Crow, 400; Meadowlark, 1; Goldfinch, 4; Junco, 11; Song Sparrow, 1; Mockingbird, 4; Carolina Wren, 3; Bewick's Wren, 3; Tufted Titmouse, 1; White-breasted Nuthatch, 2; Chickadee, 5; Bluebird, 4; Sparrow Hawk, 1; Total, 18 species, 450 individuals.—MRS. LUCAS BRODHEAD.

Louisville, Kentucky.—Dec. 25; 10 A.M. to 12 M. Sky clear; ground bare; wind southwest and rather strong; temp., about 50°. Red-bellied Woodpecker, about 6; Downy Woodpecker, 3; Flicker, 1; Blue Jay, 50; Crow, 100; Junco, 30; Tree Sparrow, 10; Cardinal, 1; Brown Creeper, 2; Chickadee, 2; Tufted Titmouse, about 40; Mockingbird, 1; Bewick's Wren, 1. Total, 13 species, 250 individuals.—MR. and MRS. T. L. HANKINSON.

Kansas City, Mo.—Dec. 25; 9.30 to 11.30 A.M. Clear; ground bare; wind north, light; temp., 35°. Screech Owl, 1; Downy Woodpecker, 3; Prairie Horned Lark, 1; Crow, 10; Blue Jay, 6; Purple Finch, 40; Goldfinch, 6; Song Sparrow, 1; Tree Sparrow, 400; Junco, 50; Cardinal, 6; White-breasted Nuthatch, 10; Chickadee, 20; Titmouse, 15; Brown Creeper, 3; Mockingbird, 4. Total, 16 species, 576 individuals.—A. F. SMITHSON and B. M. STIGALL.

St. Louis, Mo. (Forest Park.)—Dec. 25; 8.30 to 10 A.M. Clear; ground bare, except patches of snow; wind brisk, southwest; temp. at starting, 42°. Sparrow Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 5; Horned Lark, 5; Blue Jay, 5; American Crow, 15; Junco, 35; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 7; Chickadee, 4. Total, 11 species, 86 individuals.—R. H. DEAN.

Kansas City, Mo. (Swope Park).—Dec. 25; 9.30 A.M. to 12 M. Clear; ground bare; wind northwest, twelve miles, temp., 39°. Mallard, 2; Bob-white, 20; Hairy Woodpecker, 5; Downy Woodpecker, 4; Red-bellied Woodpecker, 4; Flicker, 1; Belted Kingfisher, 1; Blue Jay, 11; Crow, 37; Tree Sparrow, hundreds; Junco, hundreds; Cardinal, 100; Brown Creeper, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 11; Chickadee, 17; Mockingbird, 1. Total, 17 species, 218 individuals, plus Tree Sparrows and Juncos.—H. R. WALMSLEY.

Clay Center, Kans.—Dec. 25; 9 to 9.30 A.M., 11.25 to A.M. 3.30 P.M. Clear; ground partly covered with snow; wind south, light. American Rough-legged Hawk, 1; Downy Woodpecker, 2; Prairie Horned Lark, 9; Crow, 14; Harris Sparrow, 17; Tree Sparrow, 44; Junco, 3; Cardinal, 4; Northern Shrike, 1; Chickadee, 4. Total, 10 species, 98 individuals.—MR. and MRS. E. W. GRAVES.

Youngstown, Ohio.—Dec. 25; 7 A.M. to 4 P.M. Cloudy; no snow; brisk, southwest wind; temp., 35° to 40°. Distance walked twenty miles. Ruffed Grouse, 4; Red-tailed Hawk, 2; Barred Owl, 1; Hairy Woodpecker, 7; Downy Woodpecker, 15; Pileated Woodpecker, 1; Red-bellied Woodpecker, 2; Flicker, 2; Blue Jay, 13; Tree Sparrow, 18; Song Sparrow, 6; Towhee, 1 (female); Cardinal, 5; Carolina Wren, 1; White-breasted Nuthatch, 17; Red-breasted Nuthatch, 1; Tufted Titmouse, 1; Black-capped Chickadee, 17. Total, 18 species, 114 individuals. Dec. 20, 1907 we saw about twenty male Towhees in same locality that we observed the female on Christmas day.—GEO. L. FORDYCE and REV. S. F. WOOD.

Cadiz, Ohio.—Dec. 22; 2 to 4 P.M. Cloudy; ground partly snow covered; wind southeast, light; temp., 40°. Hairy Woodpecker, 3; Downy Woodpecker, 12; Red-bellied Woodpecker, 3; Crow, 2; Tree Sparrow, 20; Junco, 1; Song Sparrow, 12; Cardinal, 24; Carolina Wren, 2, (sings); White-breasted Nuthatch, 15; Chickadee, 6; Golden-crowned Kinglet, 3. Total, 12 species, 103 individuals. A Yellow-bellied Sapsucker has been a regular visitor this winter at a bird lunch-counter kept by Miss Ellison. It relishes unpicked grapes.—HARRY B. MCCONNELL, JOHN CONWELL, JR. and EMMA ELLISON.

Cadiz, Ohio.—Dec. 22; 9 A.M. to 1 P.M. Clouds, sunshine, snow, rain and a strong, south wind, all struggled for supremacy; temp., 36° to 45°. Sparrow Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 12; Red-bellied Woodpecker, 6; Flicker, 2; Tree Sparrow, 12; Junco, 8; Song Sparrow, 2; Cardinal, 4; Carolina Wren, 5, (sings); White-breasted Nuthatch, 16; Tufted Titmouse, 13 (sings); Chickadee, 19. Total, 13 species, 103 individuals.—HARRY B. MCCONNELL.

Rinards Mills, Ohio.—Dec. 18; 9 to 10 A.M. Clear; light snow; wind northwest; temp., 28°. Bob-white, 25; Ruffed Grouse, 4; Downy Woodpecker, 1; Pileated Woodpecker, 3; Red-headed Woodpecker, 1; Crow, 30; Goldfinch, 6; Snowflake, 5; Junco, 4; Song Sparrow, 4; Cardinal, 9; Wren, 2; Tufted Titmouse, 30; Robin, 3. Total, 14 species, all in or near an old apple orchard.—ROBERT M. LEE.

Sidney, Ohio.—Dec. 25; 7 to 8 A.M. Cloudy; ground bare; wind south, very strong; temp., 33°. Crow, 5; Junco, 6; Song Sparrow, 2; Cardinal, 2. Total, 4 species, 15 individuals.—FARIDA WILEY.

Richmond, Ind.—Dec. 25; 8 A.M. to 12 M. Clear; slightly overcast; ground bare; wind south, light; temp., 30° to 42°. Sparrow Hawk, 1; Kingfisher, 1; Downy Woodpecker, 7; Hairy Woodpecker, 1; Red-bellied Woodpecker, 1; Flickers, 4; Blue Jay, 8; Crow, 14; Cowbird, 1; Towhee, 2; Goldfinch, 20; Cardinal, 20; Junco, 50; Tree

Sparrow, 60; White-throated Sparrow, (singing), 1; Song Sparrow, (singing), 16; Carolina Wren, 1; Brown Creeper, 3; Titmouse, 4; Chickadee, 10; Golden-crowned Kinglet, 4. Total, 21 species, 229 individuals.—MISS CARPENTER, LUCY V. BAXTER COFFIN and P. B. COFFIN.

Richmond, Ind.—Dec. 25; 11 A.M. to 1 P.M. Cloudy; wind west, strong; temp., 26°. Downy Woodpecker, 1; Hairy Woodpecker, 1; Crow, 8; Blue Jay, 3; Song Sparrow, 2; White-throated Sparrow, 1 (singing); Tree Sparrow, abundant; Juncos, abundant; Goldfinch, 6; Purple Finch, 3; Towhee, 1; Cardinal, 2; Chickadee, 7; Tufted Titmouse, 1; Golden-crowned Kinglet, 2. Total, 15 species.—MISS M. BAXTER, MRS. J. G. SUTTON, MR. J. G. SUTTON and MRS. P. B. COFFINS.

Lafayette, Ind.—Dec. 27; 10 A.M. to 12 M. Sunshiny until 10, when high west wind came up and became cloudy; temp. thawing, but rough wind; snow two inches deep. Distance traversed two miles. Sparrow Hawk, 2; Downy Woodpecker, 2; Flicker, 2; Crow, 10; Blue Jay, 8; Junco, 2; Tree Sparrow, 25; Song Sparrow, 2; Cardinal, 2; Titmouse, 2. Total, 10 species, 57 individuals.—M. L. FISHER.

Detroit (Belle Isle).—Dec. 25; 8.15 to 11 A.M. Cloudy and hazy; no snow on ground but covered with heavy frost; wind very light and from northeast; temp., 34°. Herring Gull, 3; Hairy Woodpecker, 8; Crow, 9; White-breasted Nuthatch, 26; Chickadee, 12; Brown Creeper, 1. Total, 6 species, 59 individuals.—JEFFERSON BUTLER.

Peoria, Ill.—Dec. 25; 10 A.M. to 2 P.M. Cloudy but clearing; three inches of snow; wind strong, northwest; temp., 33°. Herring Gull, 14; Downy Woodpecker, 5; Hairy Woodpecker, 1; Red-bellied Woodpecker, 1; Blue Jay, 6; Crow, 5; Purple Finch, 4; Goldfinch, 2; Tree Sparrow, 150; Junco, 125; Cardinal, 15; Brown Creeper, 4; White-breasted Nuthatch, 2; Tufted Titmouse, 4; Chickadee, 36. Total, 15 species, 374 individuals.—W. H. PACKARD and C. S. VANDEUSEN.

Rock Island, Ill.—Dec. 25; 9.30 A.M. to 12.30 P.M. Partly cloudy; ground bare and frozen; light, northwest wind; temp., 39°. Bob-white, 17; Hairy Woodpecker, 2; Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Blue Jay, 8; Tree Sparrow, 60; Junco, 12; Brown Creeper, 2; White-bellied Nuthatch, 3; Chickadee, 4; Golden-crowned Kinglet, 1. Total, 11 species, 116 individuals.—BURTIS H. WILSON.

LaGrange, Ill. (Salt Creek Valley).—Dec. 25; 8.30 A.M. to 12.30 P.M. Cloudy; four inches of snow; wind northwest, strong; temp., 33°. Herring Gull, three to fifteen miles from the lake (Michigan); Prairie Hen, 5; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 4; Crow, 22; Red-poll, 12; Cardinal, 2; Brown Creeper, 1. Total, 9 species, 51 individuals.—L. R. SANFORD and F. E. SANFORD.

Desplains River Region, Cook County, Ill.—Dec. 24; 7.40 A.M. to 3.30 P.M. Clear; eight inches of crunching, becoming slushy snow; wind southwest to west, light; temp.; 1° to 4°. Herring Gull, 2; Hairy Woodpecker, 3; Northern Downy Woodpecker, 1, Northern Flicker, 1; Blue Jay, 5; Crow, 24; Tree Sparrow, 30; Junco, 2; Towhee, 11; Brown Creeper, 8; Chickadee, 3; White-breasted Nuthatch, 1. Total, 12 species, 81 individuals.—FRANK C. GATES and RALPH P. GATES.

Graceland Cemetery, Chicago; Evanston; Glenco; Northfield; Skokie Swamp to Evanston, Cook County, Ill.—Dec, 25; 7.10 A.M. to 3.20 P.M. Cloudy; four to six inches snow; wind northwest, strong in the open; temp., 0° to 5°. Loon, 1; Herring Gull, 6; American Merganser, 15; Lesser Scaup, 160; American Golden-eye, 8; White-winged Scoter, 1; American Rough-legged Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Blue Jay, 15; Crow, 22; Tree Sparrow, 18; Junco, 3; Towhee, 1; Brown Creeper, 13; Chickadee, 3; Robin, 1. Total, 17 species, 271 individuals.—FRANK C. GATES.

Chicago.—Dec. 25; 9 A.M. to 1 P.M. Cloudy; wind west, veering to northwest; temp., 34°; ground with four inches of snow. Herring Gull, 15; Ring-billed Gull, Downy Woodpecker, 3; Horned Lark, 2; Blue Jay, 10; Crow, 23; Goldfinch, 10; Tree Sparrow, 12; Total, 8 species, 78 individuals.—H. S. PEPOON.

Warren, Ill.—Dec. 26; 9 A.M. to 1 P.M. Clear; ground bare; wind southwest, light; temp., 48°. Distance walked five miles. Canada Goose, 8; Prairie Hen, 14; Mourning Dove, 1; Red-tailed Hawk, 3; Red-shouldered Hawk, 1; Rough-legged Hawk, 3; Sparrow Hawk, 2; Screech Owl, 2; Hairy Woodpecker, 3; Downy Woodpecker, 3; Horned Lark (Prairie), 5; Blue Jay, 15; Crow, 128; Red-winged Blackbird, 1; Tree Sparrow, 30; Brown Creeper, 2; White-bellied Nuthatch, 1; Chickadee, 14. Total, 18 species, 236 individuals.—H. S. PEPOON.

Jackson Park, Chicago, Ill.—Dec. 25; 7 A.M. to 2 P.M. Clear to cloudy; ground covered with snow; wind west to northwest; twenty to twenty-five miles an hour; temp., 35° to 40°. Herring Gull, 50; Ring-billed Gull, 30; Bonaparte's Gull, 1; American Merganser, 2; Red-breasted Merganser, 1; Downy Woodpecker, 4; Blue Jay, 2; Total, 7 species, 90 individuals.—EDWARD E. ARMSTRONG and CARL C. LAWSON.

Stickney, Chicago, Ill.—Dec. 25; 12 M. to 3 P.M. Cloudy; ground covered with snow; wind northwest, twenty miles an hour; temp., 40°. Ring-billed Gull, 8; Crow, 3; Lapland Longspur, 2. Total, 3 species, 13 individuals.—J. L. DEVINE.

Moline, Ill.—Dec. 27; 10 A.M. to 12 M., on Arsenal Island in Mississippi River. Partly clear; ground bare; wind southwest, light, temp., 52°. Bob-white, 20; Hairy Woodpecker, 5; Downy Woodpecker, 7; Red-bellied Woodpecker, 1; Blue Jay, 3; Crow, 2; Tree Sparrow, 8; Cardinal, 3; Junco, flock of 30; White-breasted Nuthatch, 7; Chickadee, 9. Total, 11 species, 95 individuals.—MRS. E. H. PUTNAM and GRACE PUTNAM.

Grinnell, Iowa.—Dec. 22; 2 to 5 P.M. Cloudy; misty; little snow on ground; wind northeast, light; temp., 23°. Hairy Woodpecker, 1; Downy Woodpecker, 3; Flicker, 1; Blue Jay, 3; Crow, 5; Junco, 2; Tree Sparrow, 40; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 7. Total, 10 species, 64 individuals.—W. C. STAAT.

Cedar Rapids, Iowa.—Dec. 29; 11 A.M. to 12.20 P.M. Pasture land, meadow, mixed woods and cemetery; cloudy; one inch of snow on ground; wind southeast, strong; temp., 32°; began to snow at 11.25. Downy Woodpecker, 2; Red-shafted Flicker, 1; Blue Jay, 4; Crow, 1; White-breasted Nuthatch, 2. Total, 5 species, 10 individuals.—GLEN M. HATHORN.

Milwaukee, Wis.—Dec. 22; 9.30 A.M. to 1.30 P.M. Cloudy; snow and rain, ground covered; wind southwest, light; temp., 32° to 30°. Herring Gull, 7; Blue Jay, 2. Total, 2 species, 9 individuals. Dec. 27; 8.45 to 10.45 A.M. Cloudy; light fog; ground covered; wind southwest, light; temp., 47°. Herring Gull, 61; Lesser Scaup, 227; Barrow's Golden-eye, 26; Bufflehead, 7; Downy Woodpecker, 1. Total, 5 species, 322 individuals.—I. N. MITCHELL.

Madison, Wis.—Dec. 27; 11 A.M. to 12 M. Day clear; slight covering of snow, wind northwest, light; temp., 46°. Herring Gull, 1; Blue Jay, 4; Golden-crowned Kinglet, 7; Brown Creeper, 2; Chickadee, 2. Total, 5 species, 16 individuals.—R. H. DENNISTON.

Kilbourn, Wis.—Dec. 24 to 26; clear; ground mostly bare; wind southwest; temp., 36°. 'Hoot' Owl, 1; Downy Woodpecker, 2; Juncos, 50; Blue Jay, 3; Goldfinch, 7; Nuthatch, 1; Chickadee, 6. Total, 7 species, 70 individuals.—CHESTER W. SMITH.

Elkhorn, Wis.—Dec. 26; 9.30 A.M. to 12 M. Clear, clouding before 12 M.; ground covered with snow; wind southeast, strong; temp., 30°. Dec. 27; 9.30 A.M. to 12 M. Thawing, ground nearly bare; wind southwest, strong; temp., 40°. Canada Goose, 32; Downy Woodpecker, 1; Blue Jay, 17; Crow, 17; Song Sparrow, 1; Tree Sparrow, 2; Brown Creeper, 2; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Golden-crowned Kinglet, 2. Total, 10 species, 76 individuals.—CORA HENDERSON, MABEL F. BECKWITH and SARAH FRANCIS.

Sheboygan Falls, Wis.—Dec. 25; 9 A.M. to 12 M. Ground covered with about one inch of snow; wind west, strong; partly cloudy, toward end of trip it started to snow;

temp., 30°. Hairy Woodpecker, 1; Downy Woodpecker, 5; Blue Jay, 6; Crow, 200; Red-poll, 6; Snowflake, 12; Junco, 8; White-breasted Nuthatch, 1; Chickadee, 3; Golden-crowned Kinglet, 3. Total, 10 species, 245 individuals.—JAMES SANFORD.

Minneapolis, Minn.—Dec. 24; 7.30 A.M. to 12 M. Light snow; weather cloudy; wind southeast; temp., 9° to 30°. Downy Woodpecker, 2; Blue Jay, 5; Tree Sparrow, 40; Goldfinch, 2; Nuthatch, 8. Total, 5 species, 57 individuals.—HARRIET ORNITHOLOGICAL SOCIETY.

Zumbra Heights to Excelsior, Minn. Eight miles forest and country roads.—Dec. 25; 10 A.M. to 1 P.M. Clear; two inches snow; light, northwest wind; temp., 8° above zero. Downy Woodpecker, 2; Brown Creeper, 4; White-breasted Nuthatch, 1. Total, 3 species, 7 individuals.—E. F. PABODY, JR.

Red Wing, Minn.—Dec. 25; 8.15 A.M. to 12.30 P.M. Cloudy most of the morning; ground lightly covered with snow; wind northwest, very strong, almost a gale at times; temp., 18°. Hairy Woodpecker, 1; Blue Jay, 2; Goldfinch, 1; Purple Finch, 15; Chickadee, 12; White-breasted Nuthatch, 4; Robin, 1. Total, 7 species, 36 individuals.—NELS. BORGEN, FUTHJOF WACE and CHARLES PHILLIPS.

Sioux Falls, S. D.—Dec. 29; 1.30 to 5.30 P.M. Cloudy, snowing all day; ground covered with about half a foot of snow in evening; wind northeast, medium. Prairie Chicken, 2; Long-eared Owl, 1; Downy Woodpecker, 1; Tree Sparrow, 20. Total, 4 species, 24 individuals.—ADRIAN LARSON.

Littleton, Colo.—Dec. 25; 8 A.M. to 2.30 P.M. Clear; ground partly covered with snow, melting; wind northeast, light; temp., 26° at time of starting, 56° when returned. Blue-winged Teal, 1; American Coot, 1; Ring-necked Pheasant, 5; Ferruginous Rough-legged Hawk, 3; Red-shafted Flicker, 10; Desert Horned Lark, 100; Black-billed Magpie, 50; Long-crested Jay, 10; Red-winged Blackbird, 20; Western Meadowlark, 1; Purple Finch, 50; House Finch, 10; Pine Finch, 10; Western Tree Sparrow, 100; Slate-colored Junco, 10; Pink-sided Junco, 40; Mountain Song Sparrow, 60; Long-billed Marsh Wren, 2; Long-tailed Chickadee, 10. Total, 19 species, 493 individuals.—GEO. RICHARDS.

Edmonton, Alta, Canada.—Dec. 23; 10 A.M. to 3.45 P.M. Clear; four inches snow during previous night; wind south; two to three miles; temp., 30°. Canadian Ruffed Grouse, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Western Horned Owl, 1; Pine Grosbeaks, 2; Chickadee, 8. Total, 6 species, 16 individuals.—J. A. FIFE and JNO. M. SCHRECK.

Stoney Plain, Alberta.—Dec. 17; 8 A.M. to 1 P.M. Clear; about two inches of snow; light, south wind; temp., 0°. Snowflake, 200; Raven, 2; Rough-legged Hawk, 1; Pine Grosbeak, 10; Canada Jay, 4; Chickadee, 10. Total, 6 species, 227 individuals.—SIDNEY S. S. STANSELL.

Seattle to Bremerton, Wash. (eighteen miles by steamer and return.)—Dec. 26; 9 A.M. to 5 P.M. Morning cloudy, afternoon clearing; light wind from southwest; temp., at 8 A.M. 38°. Holboell's Grebe, 7; Horned Grebe, 31; Pacific Loon, 3; Marbled Murrelet, 40; Pigeon Guillemot, 100; California Murre, 1; Glaucous-winged Gull, 4,500; Herring Gull, 200; Short-billed Gull, 1,200; Bonaparte's Gull, 2; American Merganser, 60; Red-breasted Merganser, 30; Hooded Merganser, 2; American Wirgeon (?), 40; Lesser Scaup Duck, 8; Bufflehead, 1; White-winged Scoter, 400; Surf Scoter, 50; Ruddy Duck, 1; Kingfisher, 1; Harris' Woodpecker, 1; Northwest Crow, 88; Pine Siskin, 60; Oregon Junco, 31; Rusty Song Sparrow, 26; Yakutat (?) Fox Sparrow, 1; Oregon Towhee, 9; Cedar Waxwing, 1; Seattle Wren, 2; Western Winter Wren, 9; Chestnut-backed Chickadee, 22; Western Golden-crowned Kinglet, 17; Western Robin, 3; Varied Thrush, 1. Total, 35 species, 7,000 individuals.—W. LEON DAWSON.

Annandale (near Los Angeles), Cal.—Dec. 25; 9 to 10.20 A.M. and 3.30 to 5 P.M. Clear; wind westerly, very light; temp., 68°. Around ranch house. Valley Partridge,

α (several heard); Mourning Dove, 5; Turkey Vulture, 3; Sharp-shinned Hawk, 1; Desert Sparrow Hawk, 2; Red-shafted Flicker, 3; Anna's Hummer, 2; Ash-throated Flycatcher, 1; Black Phoebe, 2; California Jay, 4; Western Meadowlark, 7; Brewer's Blackbird, 30; House Finch, 21; Arkansas Goldfinch, 6; Western Lark Sparrow, 2; Gambel's Sparrow, 27; Song Sparrow, 2; California (or Anthony) Towhee, 13; California Shrike, 5; Audubon's Warbler, 19; Western Mockingbird, 7; Dotted Cañon Wren, 2; Plain Titmouse, 8; California Bush-Tit, 13; Ruby-crowned Kinglet, 3; Western Robin, 18. Total, 26 species, about 207 individuals.—ELTA M. LEWIS.

San Diego, Calif.—Dec. 25; 7.15 to 8.15 A.M., hills of City Park; 2 to 4.15 P.M., Cañon one mile out; elevation 50 to 350 feet. Ground partially covered with sage, alder and willow, and some pepper and eucalyptus trees. Sky clear; temp., 45° to 80°. Wind northwest but very light. Valley Partridge, 300; Western Red-tailed Hawk, 1; Road Runner, 1; Red-shafted Flicker, 1; Black-chinned Hummingbird, 7; Costa's Hummingbird, 8; Couch's Kingbird, 1; Black Phoebe, 2; Horned Lark, 11; California Blue Jay, 1; Raven, 3; Meadowlark, about 75; California Purple Finch, about 100; Arkansas Goldfinch, 2; Western Vesper Sparrow, 7; White-crowned Sparrow, 35; Tree Sparrow, 7; California Towhee, 42; California Shrike, 3; Bell's Vireo, about 35; Audubon's Warbler, about 100; Long-tailed Chat, 4; Mockingbird, 2; Curve-billed Thrasher, 18; Dwarf Hermit Thrush, 2; Bluebird, 16. Total, 26 species, 784 individuals.—H. D. MEISTER.

CARDINAL ON NEST
Photographed by E. E. Howe, Sterling, Ill.

Book News and Reviews

A Preliminary Catalog of the Birds of Missouri. By Otto Widmann. St. Louis, Mo., 1907. [Trans. Acad. Science, St. Louis, Vol. XVII, No. 1, 288 pages.]

A state bird-list presenting authoritatively and adequately what is known of the distribution and manner of occurrence of the birds of the area under consideration is one of the most valuable contributions to the foundation of ornithological knowledge. It is a stable starting point for all subsequent investigation and done well it has not to be done again in a generation.

The preparation of such a list requires long-continued experience in the field to which it relates, not alone that the author may gain much information at first-hand, but that through personal observation he may weigh critically all data contributed by others.

These conditions and many others are admirably filled by the author of this volume and the result is of that high order which his previous contributions to ornithological literature have led us to expect from his pen.

Introductory sections treat of the sources of information which have been drawn on,—bibliography, explanation of terms used, faunal areas, climate, topography, decrease of birds, and bird protection. The twenty pages devoted to these subjects are followed by the list proper, in which 383 species and subspecies are treated. Of this number 353 have been duly accredited to the state and of these 162 are known to nest.

The annotations contain a general statement of the birds' range, followed by a detailed statement of its status in Missouri, of interest to students of distribution at large and of special value to the local student. We congratulate Dr. Widmann on the appearance of this book in both meanings of the word. It should do much to stimulate the study of birds in Missouri.—F. M. C.

American Birds Studied and Photographed From Life. By William Lovell Finley. Illustrated from Photographs by Herman T. Bohlman and the Author. Charles Scribner's Sons. New York, 1907. 12mo. xvi + 256 pages, 48 full-page half-tones.

Mr. Finley has here brought together some of his earlier studies of bird-life which, originally published in 'The Condor' and other magazines, we are glad to have in book form. His skill and patience, together with that of his associate, Mr. Bohlman, are too well known to call for comment here, but due emphasis should be made of the fact that although the text of these stories of bird-life was evidently prepared with a popular audience in mind, it contains a large amount of original and novel information in regard to the birds treated, resulting from the intimate, personal relation which the bird photographer establishes between himself and his subject.

The formal bird biographer will therefore find here much material worthy of quotation, and for this reason we could wish for fuller data in regard to the place and time where these studies were made.

We must express our regret that Mr. Finley has marred his book by inaccuracies in nomenclature which has led him to give the common names of eastern birds to western species which are not even their representatives. Neither the Blue Jay (*Cyanocitta cristata*) nor the Bluebird (*Sialia sialis*), for example, are found west of the Rockies, nor are they represented there by subspecific forms. As Mr. Finley very truly remarks (prefatory note) "the naturalist who uses the camera in the field often has the advantage of backing his observations with proof," but when he labels a photograph of a California Jay 'Blue Jay' (see figures facing pages 165 and 168) he is not making proper use of his evidence.

Mr. Finley's work is good enough to stand on its merits and we believe he

will find eastern readers just as much interested in his attractive stories of Western bird-life if he calls his subjects by their right names.—F. M. C.

THE DEVELOPMENT OF NESTLING FEATHERS. By LYNDS JONES. Laboratory Bulletin No. 13, Oberlin College, Oberlin, Ohio, 1907. 8vo. 18 pages, VIII plates.

Professor Jones states that the studies on which this paper is based were made for the purpose of giving "a more complete account of the development of the down, or neossoptile, than has been given by previous writers, and to show the true relation of this structure to the first definitive feathers."

After explaining the methods employed in the preparation of material, the development of the feather germ and of the barbs and barbules is described, and the relation of the down to the first definitive feather is discussed, the conclusion being reached that "the first down and its succeeding definitive feather are produced by one continuous growth, and therefore cannot be regarded as two distinct feathers."

Professor Jones' paper is an important contribution to the histology of feather growth and we trust he will follow it with one on the taxonomic value of the characters shown by the neossoptile.—F. M. C.

GRAY LADY AND THE BIRDS; STORIES OF THE BIRD YEAR FOR HOME AND SCHOOL. By Mabel Osgood Wright. New York. The Macmillan Co., 1907. 12mo. xx + 437 pages; 48 full-page plates, 12 colored. Mrs. Wright has succeeded in weaving into the narrative of a story well designed to hold the attention of juvenile readers a surprising amount of information in regard to birds, much of which, it may be added, is not to be found in the popular bird books. The following chapter or subject headings will give an indication of the book's contents: The bird—what is it?; Migrations; Molting; What the birds do for us and what we should do for them; Bird protection; Housing; Feeding; Feathers and Hats; The Procession Passes; The Flight of the Birds, Hawks and Owls; Tree-Trunk Birds; Game Birds; Winter Birds; Spring Birds; May Birds.

In the arrangement of matter and the method of treatment the author has had the needs of teachers in mind; indeed it was the success of a pamphlet written for distribution by the Connecticut Audubon Society to the teachers of Connecticut that induced Mrs. Wright to prepare this volume.

Most of the illustrations, including the twelve colored ones, have appeared in the Educational Leaflets of the National Association of Audubon Societies; some are from 'Citizen Bird;' others are from BIRD-LORE and four of the most interesting are by Dr. C. F. Hodge.

Mrs. Wright also acknowledges her indebtedness to various writers for quotations from their works, while the Gray Lady herself presents the subject of bird study in so attractive a way that she will be sure to win the attention and interest of many children who might be repelled by exactly the same matter less skilfully handled.—F. M. C.

BIRDS AS CONSERVATORS OF THE FOREST. By F. E. L. BEAL. Rep. N. Y. Forest, Fish and Game Commission. 1902-3; pp. 236-274; 14 full-page colored plates.

Mr. Beal quotes Dr. A. D. Hopkins, who is in charge of Forest Insect Investigations in the Bureau of Entomology of the United States Department of Agriculture, to the effect that the "annual loss from insect work on forest trees, and their crude and finished products, amounts to at least one hundred million dollars." As a complementary statement, Mr. Beal adds "One very important means which Nature has provided for the restriction of these pests within reasonable bounds is found in the insect-eating birds, many species of which spend most of their lives upon trees, and subsist upon the insects found thereon." The memoir is devoted to the birds of this class, the food habits and economic value of Woodpeckers, Titmice, Nuthatches, the Brown Creeper, the Warblers, Kinglets, Cuckoos and Vireos being discussed at length.

The value of birds as the distributors of seeds is also described, the Robin, Cedar Waxwing, Blue Jay, Crow, Pine Grosbeak, and Crossbills rendering good service in this connection.

The part that the birds of prey play in forest preservation is shown in their destruction of the rodents so injurious to young trees.

The life-like, colored portraits by Fuertes of many of the species mentioned add greatly to the attractiveness of Professor Beal's paper and increase the effectiveness of the information it contains.—F. M. C.

The Ornithological Magazines

THE WARBLER.—The third volume of 'The Warbler,' which appears as an annual bulletin of the museum of its editor, John Lewis Childs, is a pamphlet of 56 pages, illustrated with a number of half-tones and a colored frontispiece of the eggs of the Santa Catalina Partridge.

Among other articles this publication contains 'The Breeding of the Arctic Towhee' and the 'Rock Wren a Cliff Dweller,' by P. B. Peabody; 'Field Notes from the Upper Penobscot,' by J. W. Clayton; 'Breeding of Harlan's Hawk in Iowa,' by Charles R. Keyes, and 'Long Island Bird Notes,' by John Lewis Childs. There are also two papers by John Bachman; the first, entitled 'Notes on Some Experiments Made on the Buzzard of Carolina—*Calthartes aura* and *C. atratus*', contains a record of the experiments on which Bachman's paper on the 'Sense of Smell in Buzzards,' published in Loudon's Magazine of Natural History for 1834, was based. It is here stated to be "from original undated manuscript," but further details as to its history would be of interest.

The second paper is Bachman's well-known 'Essay on the Migration of Birds in North America,' which appeared in Silliman's 'American Journal of Science' (1836, pages 81 to 100), but is well worth republishing, though a reference to the original place of publication would have been desirable.—F. M. C.

THE CONDOR.—'The Condor' for November, 1907, contains several notes of unusual interest on the habits and distribution of Western birds. In the opening article, which is illustrated by two half-tones, Florence Merriam Bailey describes the nesting of the White-throated Swifts at Capistrano, California, where seven nests were located in cracks in the walls of the ruins of the old Spanish mission. The White-throated Swift usually nests high up in the most inaccessible cliffs and the finding of its nest only a few feet from the ground in the walls of a building is a remarkable, if not a unique discovery. Of almost equal interest is the record of the breeding of the Cassin Sparrow (*Peucæa cassini*) in eastern Colorado. Under the title 'A New Breeding Bird for Colorado,' L. J. Hershey and R. B. Rockwell describe the finding of the nest in July, 1907, at Barr, about twenty miles northeast of Denver. The species is common in central and western Kansas, and in Texas, New Mexico and Arizona, but has been found only once before in Colorado—a single specimen taken by E. R. Warren, in May two or three years ago, near Springfield, Baca county, in the southeastern part of the state. The present record not only fills in a supposed gap in the range, but carries the known distribution of the species 150 miles west of the Kansas boundary. Still another article to which special attention may be called is that by John E. Thayer on 'Eggs of the Rosy Gull.' Mr. Thayer figures an adult male, a young bird in the down, and four eggs of the Rosy Gull obtained from M. S. A. Bauturlin, a Russian ornithologist, who collected them in June, 1905, in the delta of the Kolyma river, in northeastern Siberia. The Ross, or Rosy Gull (*Rhodostethia rosea*) is one of the rarest of the Gulls. Until recently very little was known of its distribution or habits, as it is an arctic species whose range extends into high latitudes.

Brief notes on the birds observed during a trip through the Redwoods of Santa Cruz county, California, 'From Boulder to the Sea' are given by Milton S. Ray;

a description of a large breeding 'Colony of Tricolored Blackbirds' near Fresno, California, is presented by John G. Tyler; and an interesting account is contributed by Rev. P. B. Peabody of 'The Prairie Falcons of Saddleback Butte' in Sioux county, Nebraska, and of repeated attempts, finally successful, to locate the nesting site. In 'A Collecting Trip by Wagon to Eagle Lake, Sierra Nevada Mountains,' Harry H. Sheldon includes an annotated list of 91 species of birds and, among other interesting notes, records the nesting of the Cinnamon Teal at Eagle Lake and of the Northern Pileated Woodpecker near Big Meadows. The former record apparently gives the most northern locality at which the Cinnamon Teal has been found breeding in the state.

Two articles on Southwestern birds complete the list of papers. M. French Gilman concludes his list of 'Some Birds of Southwest Colorado,' and Austin Paul Smith contributes some brief 'Summer Notes from an Arizona Camp.' The most interesting point in the latter article is the record of the presence in the Whetstone Mountains of three species each of Thrashers, Orioles, Tanagers and Partridges, and no less than four representatives of the family of Nighthawks and Whip-poor-wills.

This number of 'The Condor' ends with page 211 and completes Volume IX—a volume larger than most of its predecessors, if not the largest in the series.—T. S. P.

Book News

'The Century' for January contains Mr. Finley's remarkable study 'The Home-Life of a California Condor,' which those who were fortunate enough to hear it will recall as one of the most stirring accounts of field-work ever presented before the American Ornithologists' Union.

Messrs. A. and C. Black (Soho Square, London, W.) announce the publication of the 'Birds of Britain' by J. Lewis Bonhate. The book will be illustrated by 100 full-page plates reproduced by colortype from the originals of Dresser's 'Birds of Europe' in a manner which, if we may judge from the specimen plates examined, will be wholly satisfactory both to ornithologist and artist.

In 'The Nature Study Review' for December, Bina Seymour has some 'Observations on Barn Swallows' in which it appears that two young birds which left the following day were fed on August 7, 332 times. Feeding began at 6.03 A.M. and ended at 6.51 P.M. The birds were fed "almost without exception," alternately and the average number of insects for each young bird is said to be 166, but does it follow that only one insect was given each feeding?

We have received a prospectus of 'The Birds of Maine' by Ora W. Knight (84 Forest Ave., Bangor, Me.), which it is expected will be ready for delivery not later than April 15. The work will contain descriptions of plumages as well as biographies.

Witherby & Co., 326 High Holborn, London, announce the publication of a special photographic number of 'British Birds' on 'The Home-Life of Some Marsh Birds' by Emma L. Turner and P. H. Bahr. It is illustrated with thirty-two full-page plates and many text illustrations. The price, postpaid, is seventy cents.

The December, 1907, number of 'For California' (Vol. X, No. 1), issued by the California Promotion Committee, at San Francisco, is a 'Bird Number' and contains the following articles: 'Birds in California', F. W. D. Evelyn; 'Birds of the California Desert,' F. W. Koch; 'Birds of My Winter Garden,' Bertha Chapman; 'The Greatest Bird Rookery in the West,' M. S. Ray; 'Some Birds the Stranger Sees,' Elizabeth Grinnell; 'Bird Beauty and Perfection,' W. E. Ritter; 'A Bird with a Language,' Joseph Grinnell; 'Birds of the Mountains,' W. W. Price; 'Pasadena Tourists,' W. P. Taylor; 'Gulls of San Francisco Bay,' C. E. Edwords; 'The Audubon Society of California,' W. Scott Way.

Bird-Lore

A Bi-monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
Published by THE MACMILLAN COMPANY

Vol. X Published January 1, 1908 **No. 1**

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

Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

WITH this issue BIRD-LORE reaches its tenth birthday and the Editor knows of no better way to celebrate the occasion than to acknowledge his indebtedness to those whose coöperation has made these ten years what we believe to have been a period of steady progress in the development of the magazine and in the widening of its sphere of influence.

BIRD-LORE'S defects are apparent enough and no one regrets them more strongly than its Editor who ever deplores that many other demands on his time prevent him from making the magazine wholly worthy of the support it has received; but let it be said to the credit of humanity that among the thousands of letters received from subscribers not one but has had some word of praise unmarred by the thorn of fault-finding.

Surely this is a cause for thanksgiving, if for no other than purely altruistic reasons, and very heartily do we express our gratitude to the correspondents, one and all, who have so materially lightened the editorial burden and brightened the editorial way.

IN response to our request numerous suggestions have been received in regard to the family of birds which shall be figured when the Flycatchers are completed. Some correspondents ask for colored plates of the Shore Birds some select the Vireos, some the Wrens, while the greater number have chosen the Sparrows. One writer makes the excellent suggestion that as much time would be required to complete the series of Sparrow pictures it might be advisable to figure the species of a smaller family first and names the Wrens as his preference if such a plan be adopted, and we see no reason why it should not be. In the meantime, the processes of reproduction in color are being improved, and any delay should be accompanied by better results. The Sparrows are a far more difficult group to figure than the Warblers. In the latter, large masses of simple colors prevail. In the former, there is greater variety both of color and of pattern which only the best process can reproduce satisfactorily.

Is it due to the greatly increased interest in birds that the Eagles on the new ten- and twenty-dollar gold-pieces have met with so much criticism? Twenty years ago, we imagine, these coins might have appeared without occasioning more comment than has been aroused by other mint-born birds, whereas now the correctness or inaccuracy of the Eagles depicted upon them is one of the questions of the day, and the professional ornithologist is asked to decide controversies in regard to this point or that.

From a purely ornithological point of view both birds are incorrect in pose and in numerous details of structure, but St. Gaudens was not illustrating a text-book, and although he permitted himself to come nearer a real Eagle than, as far as we are aware, any other designer of an American coin, he took those liberties which art warrants and the result should no more be subjected to technical criticism than should the so-called 'wing' of an angel. It is a question of art, not of ornithology.

MR. Henry Oldys, of the Bureau of Biological Survey, reports the capture at Manahawkin Bay, New Jersey, of a Canvasback Duck with a band on its leg marked "T. J. O. D. 48." He would be glad to hear from any one who knows of this bird's history.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

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

FEBRUARY HINTS

IF the ground is snow-covered in February, you will probably be troubled in your walks and watching of birds for the glare and reflection of light, for not without cause did the Red Men call February the "month of snow-blindness." A very simple device may be added to the field- or opera-glass that will give both relief from the glare and added keenness to the vision, thus: From strong, yet flexible cardboard make a pair of tubes of a size that will fit closely over the large end of the glasses and project about three inches beyond the frames; line these tubes smoothly with unglazed black paper,—that which comes wrapped about photograph plates will do nicely. These tubes cut off the side light and prevent cross reflection upon the lenses, and have somewhat the same effect upon the eye as the 'stopping down' of a photographic lens has upon the sensitive plate—greater clearness and accuracy of detail. Nor is the value of the contrivance confined to winter alone, for it is equally useful when looking at birds across water or against the light, as one must do sometimes, or lose the view of a rare species. Those who find these tubes satisfactory may have them duplicated in leather so that they will form part of the permanent field-going equipment.

This last calendar month of the winter that never really ends until the spring equinox of March 21, is an excellent time for doing a little technical bird study. If the student only knows half a dozen birds, such as the Robin, Barn Swallow, Crow, English Sparrow, domestic Pigeon and one of the common Woodpeckers, he has the framework for studying the differences of the six families to which they belong, by the aid of books and pictures, even if mounted museum specimens are not within reach, and in this way he will be less puzzled in naming newcomers. Plumage varies more or less in many species according to season, but general build, the shape of beak and claws and the conformation of the tail remains the same the year through.

If you have not already put up nesting-boxes do it now or your labor is likely to be in vain, except in the case of the Wrens who ask no questions and will cheerfully adapt to their needs a home large enough for an Owl by cramming it full of twigs and then squeezing their nest into one corner. The Wren is a most comfortable bird in spite of its restlessness and quick temper, for it has no tra-

dition in the matter of architecture. An old shoe, a mitten, a torn hat, a skull, or a neat house with piazza and overhanging eaves are all the same to it. With other birds the case is different and the imitation fence-post or hollow limb must be in place before the first Bluebird, Tree Swallow or Chickadee thinks of mating, while I firmly believe that the Woodpeckers and Screech Owls engage their quarters the fall before and occupy them on winter nights.—M. O. W.

Entangled in the Burdock

The following verses, by one of America's best-known poets, were inspired by the photograph of a Goldfinch which lost its life by becoming entangled in a burdock, which appeared in BIRD-LORE for December, 1906.

AMERICAN GOLDFINCH ENTANGLED IN BURDOCK
Photograph by B. S. Bowdish

How could'st thou, O my Mother,
To whom we all belong,
Betray our little brother
Who had the wings and song?

For Nature's self betrayed him,
And did with food entice;
And none there was to aid him
To slip the thorny vise.

The golden wild Canary—
The child of light and air—
Blithe-hearted, sank, unwary,
Upon the burdock's snare!

And there he strove and fluttered
Through all the long, bright day;
And many a wild cry uttered
Ere Life took flight away!

At last (oh, piteous thing!—
It is for this I weep),
With head beneath his wing,
He tried to go to sleep!

How could'st thou, Nature—Mother,
To whom we all belong—
Betray our little brother
Who had the wings and song?

—EDITH M. THOMAS.

SNOWFLAKE

Order—Passeres
Genus—Passerina

Family—Fringillidæ
Species—Nivalis

(ONE-HALF NATURAL SIZE)

THE SNOWFLAKE

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 30

No matter what the weather may have been in December and January, February is sure to be a month wherein winter rings all the changes from soft days, rain, sleet storms to deep, trackless, obliterating snows. If the winter has been clement and open at the beginning, the insect-eating, resident birds—Nuthatches, Woodpeckers, Chickadees, etc.,—will be numerous, but if February lives up to its reputation of

> "When the days begin to lengthen,
> The cold begins to strengthen,"

we must rely upon the brave seed-eating birds to be our companions until the first courageous spring migrants appear.

His Kindred

All winter we have had with us members of the family of *Fringillidæ* or Finches and Sparrows that have either come in lingering flocks or merely as birds of passage: the Goldfinch in his sober winter dress, the stocky Purple Finch, the handsome White-throated Sparrow, the sociable Tree Sparrow or Winter Chippy, chiefly distinguishable by its larger size from the gentle little summer resident of the hair-lined nest; the Slate-colored Junco, trim of figure, dressed in clear gray, with sleek white vest and identifying light beak. In addition to these have come perhaps, if cone-bearing trees are near, a mixed flock of American and White-winged Crossbills—those strange birds of varied red plumage, beaks crossed at the tips, and clear metallic call notes.

In spring we may predict with reasonable accuracy the coming of the birds that are summer residents, as well as the time of passage of the migrants that nest further north, but the comings and goings of the winter birds are fraught with entire uncertainty. Several days will pass when my lunch-counter in the old apple tree, with its sloping roof of old wood that keeps off wet, will be without a single visitor; then, without rhyme or reason, the birds will swarm about it like bees about buckwheat,—birds of all sizes, from the Blue Jay to the merry little Kinglets. Weather, rather than individual will, seems to be the guide and motive power of the winter birds, and this weather influence works in a wholly different way in winter than in spring. Fair weather draws the birds of spring to us, but it is to the storm-clouds and fierce winds of north and east that we owe a glimpse of the rarer winter birds that make their summer homes in arctic regions.

His Season

Five birds of the north there are that I never expect to see during an open winter—the Snow Owl, Pine Grosbeak, Redpoll, the rare Lapland Longspur who leaves the print of his long hind toe in the snow to tell of his coming, and the Snowflake,—all but the Owl belonging to the great family of Finches and Sparrows. When these birds appear we may know that even if we have had but a light snowfall, there have been great Arctic storms that have passed off perhaps seaward, scattering the birds before their fury.

Of all these birds of the wind, the Snowflake is the most winning, allowing us to come near him as he feeds, and venturing close to our houses, barnyards and hayricks in search of food, sometimes to the very doorstep itself where, a few years ago, I saw a small flock of seven feasting upon the waste seeds that had been thrown out from the Canary's cage.

Few birds have more appropriate and descriptive names than this, who was beforetimes called the Snow Bunting, and in the minds of poets and many others confused with the Gray Snow Bunting, now called the Slate-colored Junco by the Wise Men to stop confusion, as the Junco has kindred in the West and South.

After the snowfall has ceased and we look across the open toward the wooded strips to see the fanciful shapes the trees have taken, a slight motion draws the eye toward a protected hollow where the bent and broken stalks of mullein, ragweed and wild sunflowers still hold their own above the snow.

What is it,—brown leaves drifting about? Impossible! The only uncovered leaves are those few that cling dry and rustling to the young beeches and oaks, refusing to let go until the swelling buds of March actually break their grip.

Work your way carefully toward the nearest shelter, field- or opera-glass in hand, and you will see not leaves, but a flock of plump, compactly built birds, a little larger than the familiar English Sparrow. At first you will have difficulty in separating them from the snow for they are all white underneath and have much white on the neck, head, wings and tail. Such colors as the Snowflake wears, is, when seen close, a deep rust-color, but it is so mixed with the white that at a short distance the plumage takes on all the dead-leaf hues of fawn and russet, as if the birds were themselves animated leaves frolicking with the blowing snow. When they take to wing they give a sharp call note somewhat like the second syllable of the call of the Scarlet Tanager. This is the Snowflake's winter dress; in summer he wears clear black and white.

His Country

The Snowflake is a summer resident of the Arctic Circle from which, in its winter travels, it visits Europe and eastern Asia as well as the United States, and may therefore be classed with the small group of circumpolar birds. They therefore nest in the extreme north where the tree growth is so stunted that the region is called "the Land of Little Sticks." In winter it is to be found throughout New England and irregularly in the middle states.

His Nest

The Snowflake belongs to the ground-loving portion of its tribe, if such a distinction is allowable. Not only does it nest on the ground, but as far as we may judge from its winter habits, spends most of its time there when not in flight. I doubt if it even roosts in trees, for those that I have seen hereabouts took shelter after feeding, either in a brush-heap or in the edges of a corn-stack which always affords shelter for birds that prefer to squat rather than perch, at least in winter.

The Longspur clings to the ground in this same way, and the Horned Lark also, and we can easily see that it would be a matter of heredity in species that are natives of countries offering such poor perching accommodations in the matter of trees.

Dr. Coues thus describes the nest: "The few nests of the Snowflake that I have seen were built with a great quantity of a kind of short curly grass which grows in the Arctic regions, mixed with moss, the whole forming a very substantial structure, with walls an inch or more thick, and a small, deep cavity. This is warmly lined with a quantity of large feathers from some water-fowl. They are built on the ground, often covered and hidden by tussocks of grass or even slabs of rock. The eggs are exceedingly variable in color as well as size.

The Eggs

The ground is white or whitish, sometimes flecked all over with neutral tint shell-markings overlaid by deep brown spots. . . . In other cases, we have a heavy wreath of dull brown blotches around the larger end. Those who have seen the Snowflake at home in summer speak highly of its vocal ability, and have also a good word for the fidelity of the bright bird to its mate and its young."

To us who may only see the Snowflake in its wanderings, its chief interest and importance is that its coming brings a bit of novelty to the winter landscape, and that it is one of the most furtive of the great tribe of Weed Warriors that, through the very necessities of its existence, consumes vast numbers of weed seeds before the growing seasons quickens them to life. The careless land-owner for the lack of a few days or even hours spent with a scythe in his pasture and old fields, invites the company of weeds that will not only choke his crops but rob the very soil of its fertility. Then comes winter, and while the man withdraws into his house, and in storms goes out only to feed the cattle, the band of feathered workers that are a great part of Nature's scheme of economics, silently appear, and without confusion fall to their allotted tasks: The Cross-bills and Pine Grosbeaks, through their feeding, to plant evergreen forests; the Waxwings to establish the pointed cedars on bare hillsides, drape the by-ways with bittersweet and mesh the thickets with catbriar; the Myrtle Warblers

His Food

to spread the persistent greenery of the bayberry, together with many other berry-bearing bushes; while the gentle Snowflakes in the hollows, always keeping close to the ground, glean from the broken weed-stalks that have been overlooked by their kinsmen in the earlier season of plenty.

In addition to this seed food, the Snowflake is known to eat the larvæ of small insects and minute shell-fish that attach themselves to the leaves of water plants and rushes (upon the seeds of which they also feed), so that there is reason in this varied diet for the usual plump appearance of the bird.

Destruction of Snowflakes

Surely, if any bird could be expected to receive hospitable treatment at human hands, one would think it would be given to these brave children of frost and snow, the Snowflake and Slate-colored Junco, yet myriads of these have fallen into the snares of the trappers for the sake of the mere mouthful of meat they furnish. Nuttall tells of the way in which they were shot every winter on their return to the Scottish Highlands, their compact manner of flight making them easy marks for the fowler; while in other countries of Europe they were systematically caught in traps, when, after being kept and fed upon millet until they had recovered from the fatigue of their long flight, they became in flesh and flavor the rivals of the famous Ortolon. A man from our own hill country who was a boy twenty years ago, told me a few days since, as we stood watching the Juncos picking up mill-sweepings from under my feeding-tree, that "at home we always used to catch lots of those Gray Snowbirds every winter, in a box-trap. Good eating they were too—'bout as sweet and tasty as Reed-birds (Bobolink). T'would be a poor winter we boys didn't get a couple o' hundred on em. Since the blizzard year (1888) they sort o' shied off, and now that the law has set plump down on every sort o' snarin, the country fellers either has to take bad risks or do with pork meat in winter. No more Partridge runs and rabbit falls, and gray squirrels can sas yer and fire acorns at yer all they like after December and yer can't shoot back!"

It was a new idea to me, this recent snaring of the welcome winter birds that so many of us labor to protect. Alack! behind them the sweep of the blast to which so many succumb from exhaustion, with the haven of food and promised shelter sometimes leading to a trap, how much greater must be the vital power of Nature than all the inventions of man, or else there would be no more Juncos or Snowflakes to fall from the very storm-clouds themselves and beg our hospitality.

SNOWBIRDS

Along the narrow, sandy height
I watch them swiftly come and go,
Or round the leafless wood,
Like flurries of wind-driven snow,
Revolving in perpetual flight,—
A changing multitude.

Nearer and nearer still they sway,
And scatter in a circled sweep,
Rush down without a sound:
And now I see them peer and peep
Across yon level bleak and gray,
Searching the frozen ground.

Until a little wind upheaves
And makes a sudden rustling there,
And then they drop their play,
Flash up into the sunless air,
And, like a flight of silver leaves,
Swirl round and sweep away.

—Archibald Lampman.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

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

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Membership in the National Association

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

FORM OF BEQUEST

I do hereby give and bequeath to The National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), *of the City of New York.*

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Proposed Legislative Work in 1908

Massachusetts.—A bill has already been prepared to make the closed season for Ducks, Geese, Brant and Swan and the Shore Birds to commence January first. It will be introduced in the name of the Massachusetts Audubon Society. A similar bill will be introduced in the Rhode Island Legislature by the Audubon Society of that state. The field agent and lecturer of the National Association, Mr. Edward Howe Forbush, has these important bills in charge and he has already done a large amount of preliminary work by lectures, interviews and through the press. He

reports a healthy and growing sentiment in favor of this important movement. All citizens of Massachusetts and Rhode Island, irrespective of whether they are members of the Audubon Societies or not, should give all their influence and support to these bills. The time has arrived when prompt and drastic action must be taken to preserve the water-fowl and shore birds, else they are doomed to a sure and rapid extermination. The true sportsmen of these two states should work for the passage of the bills in the most aggressive manner in order to counteract the efforts of those shooters who still selfishly desire to kill water-fowl and shore birds when they are on the northward migration to the breeding grounds. One of the basic principles of the National Association is "No Spring Shooting." Let this be the rallying cry and success for the bills is assured.

New York.—Among the many admirable recommendations in Governor Hughes' message to the 1908 Legislature, none was of greater importance than that referring to game laws. "I recommend that the Forest, Fish and Game law be carefully revised," and "I recommend the enactment of a License Law." The present game law of the state is a mass of contradictory sections and this Association has strongly advised their revision. This, however, cannot be done in a satisfactory manner unless the advice and scientific knowledge of an ornithologist and mammalogist is secured. The executive officers of the National Association will watch with interest the results of the important suggestions of Governor Hughes and will be prepared to use all of its influence to further the passage of a revised game law and also a license law. The New York Audubon Society will likewise take active measures to procure such desirable improvements for bird and animal protection.

New Jersey.—A number of important conferences have already been held in this state for the purpose of formulating plans for the passage of an anti-spring shooting law. Readers of Bird-Lore will recall the unsuccessful attempt made in the Legislature of 1907. This year the organization backing the proposed bill is much stronger than it was last year, further, there is a growing public sentiment in favor of the abolition of spring shooting. The Affiliated Sportsmen's Clubs, the Audubon Society and the La Rue Holmes Nature Lovers League will all do yeoman's service to secure up-to-date game laws in New Jersey to replace the farcical statutes now in force.

Maryland.—There is a probability that some necessary changes in the game laws of this state will be attempted at the present session of the Legislature, but the plans are not yet advanced far enough to report on.

Oklahoma.—In this new state the model law has been introduced in the Legislature, which is now holding its first session. It is House Bill No. 93. It is being pushed in the most energetic manner and will undoubtedly become a law, as there is a strong sentiment in the state for the protection of birds. Bills to establish a state warden-system, hunting licenses, close seasons, etc., have also been introduced and are receiving deserved support. The citizens of the youngest of the sisterhood of states evidently propose to start out right in the matter of bird and game protection.

Across the Border

The Prince Edward Island Fish and Game Protection Association is doing excellent work and is rapidly growing in size. Their last quarterly report indicates that the Ruffed Grouse which was nearly extinct" is becoming quite numerous as a result of special protection for two years. "Posters were put up through the province cautioning people against killing Partridge and offering a reward for information leading to the conviction of any person violating the Game Act." The following is of special interest. "The work the

Association is accomplishing has attracted the attention of protectionists in the United States and is being watched with keen interest. The National Association of Audubon Societies in the United States has presented the secretary with forty-four valuable colored lantern-slides, illustrative of bird life, to assist him in his work of educating the people as to the economic value of the birds, and in showing the importance of strictly protecting these tireless aids of the farmer.

"The whole country is awakening to the vast importance of this branch of the Association's work. Four districts have already asked us to send down the secretary to lecture on this subject, offering to provide the hall and do all the advertising free of charge."

Big Game Protection in Texas

State Game Warden Lorance recently arrested for killing antelope three persons who plead guilty and were fined. This is the first case ever recorded in the state for killing antelope, although it has been unlawful for the past fifteen years to kill them. This is one of the results of the long and expensive campaign conducted by the Texas Audubon Society, which was financed by the National Association, in the Legislature in 1907 for the establishment of the state game-warden system. When this new Commission gets thoroughly organized, it is confidently expected that the illegal shipment of water fowl from Texas to northern and eastern markets will be prevented.

Two New Audubon Societies

Within the past three months Audubon Societies have been organized in Mississippi and Alabama. The former through the efforts of our field agent, Mr. Kopman, and the latter by the joint work of Game Commissioner Wallace and Mr. E. G. Holt, who was elected its first president. Aggressive work is proposed by both of these new organizations, especially along educational lines. Mr. Andrew Allison, secretary of the Mississippi Society writes concerning its organization as follows:

"The Mississippi Audubon Society was organized in Jackson, Mississippi, on November 9, 1907, as a result of faithful work on the part of the National Association's special agent, Mr. H. H. Kopman. The attendance at this initial meeting was not large, but the important classes in bird-protection work were all represented —women, farmers, sportsmen, teachers and lovers of birds just because they are birds. Addresses were made by Prof. T. Gilbert Pearson, Secretary of the National Association; Prof. Geo. E. Beyer, of Tulane University, New Orleans; Mr. H. H. Kopman, and others. The officers elected are: Col. T. M. Henry, President; Dr. W. H. La Prade, Vice-President; Andrew Allison, Secretary, and Miss Frances Park, Treasurer. "Being delayed beyond the proper number of BIRD-LORE for reports, this brief sketch is somewhat unofficial, and statistics are not in order; but I must not omit to mention the excellent showing made by the public school of Ellisville, which turned in a membership roll of over one hundred children and nine teachers; very far surpassing any other school system in the state, and proudly carrying off the highest award donated for the purpose by the National Association; two recent and excellent bird books. The State Superintendent of Education, Mr. J. N. Powers, is a charter member, and promises his hearty coöperation in pushing the work in the schools.

"There is much to be done, for a prominent ornithologist has called our state 'one of the best neglected'; but progress is visible, and we hope to report fair results at the conclusion of our first year."

Another Audubon Patrol Boat

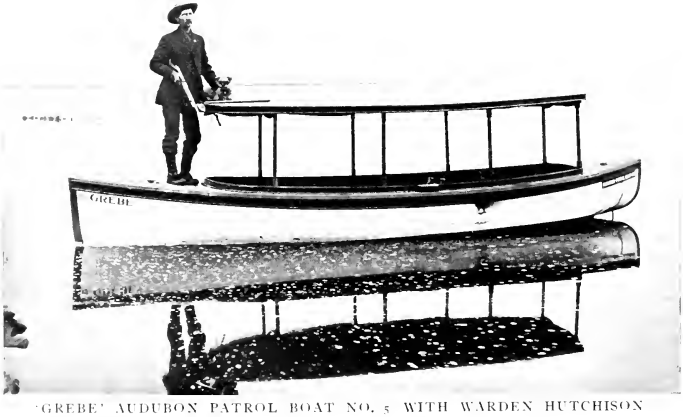
In the annual report for 1906, BIRD-LORE, volume VII, page 336, our field agent and lecturer, Mr. Finley, gave a graphic account of the wonderful bird life on Klamath lake, Oregon. Such large numbers of Grebes, Gulls, Terns, Cormorants and Pelicans breed, and the lake is

such a resort for Ducks and other species of birds, that, in order to give the most efficient protection, it was found necessary to furnish the warden, Mont. E. Hutchison, with a power boat, to enable him to patrol the lake and thus prevent the slaughter of the non-game birds at any time and the Ducks and other game birds during the closed season. The man behind the gun and his companion "Towser" are always on duty when the lake is free from ice and they are the means of saving thousands of birds that would otherwise be sacrificed, some for millinery ornaments and others from market shooters.

Valuable Club Work

The first annual report of the Committee on Bird Protection of the Forest and Field Club of Belmont, Massachusetts, is given below. The results secured are so very excellent that the plan is recommended highly for adoption by field clubs and village improvement societies in all parts of the country. It is astonishing how many valuable birds can be saved by the work of a few unselfish and public-spirited persons who will devote a few moments of their spare time to this movement:

"A new step in bird protection has been adopted by the Forest and Field Club of Belmont. A committee of three were appointed, who were empowered to use any money they might raise, as well as one-half of the surplus money in the club's treasury, toward the protection of birds in Belmont. Every person who owned any land in the shooting district was requested to sign the following paper: 'I, the undersigned, will allow the Forest and Field Club of Belmont to post notices prohibiting shooting and trapping upon my grounds, and will allow their game wardens to enforce these orders, on the condition that I thereby incur no expense.' As every paper was cheerfully signed, the club was empowered to post upwards of two square miles of woodland and pastures An Italian, interested in bird protection, translated the following notice into the proper dialect of his native language: 'No shooting or trapping allowed within these



'GREBE' AUDUBON PATROL BOAT NO. 5 WITH WARDEN HUTCHISON

NO SHOOTING OR TRAPPING

ALLOWED WITHIN THESE GROUNDS

The penalty for each violation of this order is a fine of not more than $20.00.

Defacing these notices is prohibited by law, penalty not more than $25.00.

$5.00 REWARD will be paid for information to the Chief Warden of the Forest and Field Club of Belmont, which will lead to the arrest of any person violating these orders.

AVVISO

La Caccia od il Trappolare

IN QUESTO LUOGO

E ASSOLUTAMENTE PROIBITO

Per ogni caso di violazione di questo ordine la massima multa sara di venti dollari.

Distruggere o scancellare questo ordine sará punito con massima multa di venti cinque dollari.

La Ricompensa di Cinque Dollari

e offerta alla persona che dará informazione al Capo Custode del Forest and Field Club di Belmont, che garantira l'arresto di chi infringe questo ordine.

grounds. The penalty for each violation of this order is a fine of not more than twenty dollars. Defacing these notices is prohibited by law, penalty not more than twenty-five dollars. Five dollars reward will be paid for information to the Chief Warden of the Forest and Field Club of Belmont, which will lead to the arrest of any person violating these orders.' One thousand cloth copies of this, printed in both English and Italian were purchased with money which was raised by subscription. These were posted over the entire shooting district and ten volunteer wardens were appointed to enforce them.

"This method has proved very successful, so it is hoped other towns will adopt a similar plan. Two or three energetic persons could post their town likewise in two months. This Committee will send a sample poster to any person who will volunteer to start a similar movement in his town. Address all communications to Samuel Dowse Robbins, Chairman, Lock Box 25, Belmont, Massachusetts."

A New Bird Reservation

The explorations made for the National Association of Audubon Societies last summer by Mr. H. H. Kopman, on the coast of Louisiana ((See BIRD-LORE IX, 1907, pages 223–240) having shown that East Timbalier Island was the seat of large colonies of birds the United States government, in response to the request of the Association has declared this island to be a "Reservation for the protection of native birds" as will be seen by the map on the following page.

A Well-protected Public Reservation

The following letter from Dr. James A. Carroll, Superintendent of the Indian Reservation at Mescalero, New Mexico, shows such an intelligent appreciation of the necessity for bird and animal protection and such an active enforcement of his ideas that it is a pleasure to present an outline of his work as he reports it:

"I am indeed, quite interested in the great work now being conducted by the National Association. My interest extends even beyond the protection of wild birds and animals—to the protection of fish as well. And I'll try to show you that this interest is more than a fleeting sentiment or a pretty theory; that I've demonstrated it in a practical manner.

"This reservation embraces an area of very nearly 475,000 acres of land. 'Tis a mountainous country, heavily timbered, fairly well watered, and is a natural retreat for the wild life of this section. Bear, deer, lions, wolves, cats, coyotes, badgers, skunks, squirrels, turkeys, pigeons, ravens, doves, quails and innumerable small birds are found here. There are two beautiful streams on the reservation and these are teeming with trout. The edible game I found it necessary to protect, and I did it in this way: I limited the hunting season to two months and a half—from November 15 to February 1—and kept the Indians' firearms under lock and key the balance of the year, and I required employees and others to observe this regulation. In this way does with young fawns have not been killed; nor have turkeys hens been killed, leaving broods of young to die. I've also exercised much care in issuing hunting permits to outsiders. As a protection to the fish, guards are employed, who patrol the streams and admit no one unless he presents a permit. These regulations have been operative for four years, and the increase in game and fish is simply wonderful. No effort is made to protect those wild animals that are a menace to flocks and herds; and, as for such birds as are not edible, they are never disturbed."

Qualifications Necessary for a Game Warden

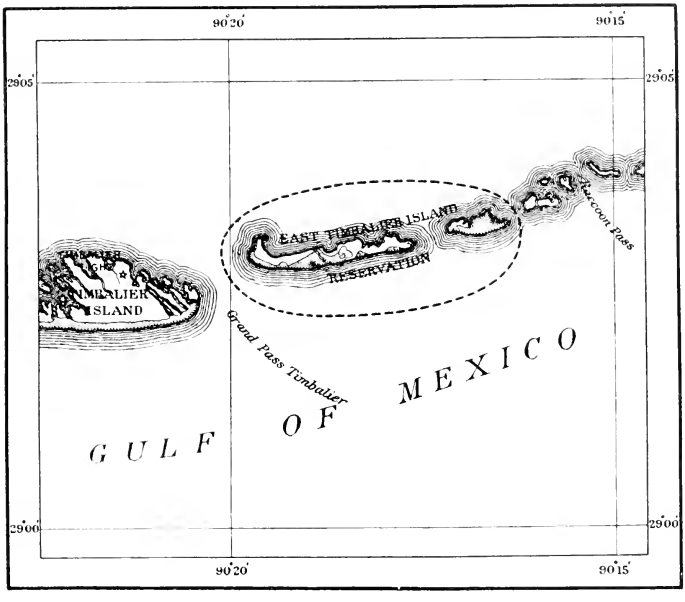
One of the recommendations advanced by this Association in its last annual report was "Civil Service in the appointment of game wardens; they should pass a satisfactory examination showing fitness for the position." What constitutes fitness?

EAST TIMBALIER ISLAND RESERVATION

For Protection of Native Birds

LOUISIANA

Embracing the Island segregated by broken lines and designated "East Timbalier Island Reservation"



DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

Richard A. Ballinger, Commissioner

Diagram attached to and made part of the order dated December 7, 1907

The warden should not only be strong and in perfect health but must be possessed of bravery, for he is frequently in danger, especially when trying to arrest aliens. Moreover, he should have such an interest in nature that he will be lifted above the plane of a hired servant and will get some of his compensation in the pure enjoyment of time spent in the field and woods. Political service or affiliations should have no weight in the appointment of wardens, in fact, when a selection is being made, this question should not be asked or considered. To be properly qualified, a warden should be able to identify all of the common birds of his section—the game birds as well as the non-game birds. A carpenter or bricklayer who knew no more of his craft than the ordinary game warden of today knows of birds would never be able to get work. They must be skilled workmen or they are relegated to the class of laborers. Why should it be otherwise with a game warden? In these days of bird books and leaflets, many of them profusely and correctly illustrated, it should be easy for a warden of ordinary intelligence to qualify by passing an examination showing that he had a knowledge of birds as well as their babits and could make correct identifications in the field and especially when called upon to give expert testimony in courts when the identity of birds was in question. Recently, some aliens were arrested near Jamaica, New York, and a warden was called in to testify in the case. He gave the following testi-testimony, which shows how well qualified he was for the place occupied. Six Hermit Thrushes and a couple of Song Sparrows had been shot. A police officer testified they were 'Brown Thrushes'. The game protector was called as an expert on birds and testified that the larger birds were "Brown Thrushes", sometimes just called "Thrushes" and that the other birds were "Song Sparrows" or "American Goldfinches." There was an amusing cross examination; "What is the difference between a Sparkling (probably Starling was meant) and a Song Sparrow or American Goldfinch." The warden replied "that a Goldfinch went teet-teet-teet; while a Sparkling had a different call." One of the judges said they wished to know the difference in appearance, to which the expert replied, "Well, ah, ah, ahem, the Goldfinch is like these birds here, (pointing to the smaller ones) while the Sparkling is a little larger and browner."

Such a case as the above makes bird protection a farce and the work of the Audubon Societies doubly hard. Perfect service will not be attained until the men employed as state game wardens can inform the inquiring citizen of the name of a bird and also what its relations to agriculture and forestry are, and can talk intelligently and interestingly on the subject. Such men can be found; one has lately been appointed in Connecticut.

A Wild Turkey Case

Our field agent, Mr. Kopman, is not only educating the public about the value of birds, but is demonstrating that the non-sale law in Mississippi must not be violated. He recently preferred charges against a prominent firm of restaurateurs in Jackson for exposing for sale and advertising that Wild Turkey would be served. At the trial it was impossible to prove that the portion served to Mr. Kopman was from a wild bird. Judge Thompson in acquitting the firm delivered the following charge to the defendants: "While the evidence is unsufficient to warrant a conviction, the phase of the case that perplexes me is that a firm of the reputation of ——— ——— could afford to advertise the selling of anything they were not prepared to furnish or to admit having furnished." Judge Thompson further added "that the restaurants must comply with the game laws, and that they should not under any circumstances render themselves liable to another affidavit."

series of 'Habitat Bird Groups,' in the American Museum of Natural History. A few nests were discovered here and there, but always, when a rookery ('heronry' is not used in the South) of promising size was reported, the plume-hunters arrived first and word came that the "long whites have all been shot out."

Thus year by year the Egrets have decreased in number. I miss the white gleam of their plumage in the dark cypresses and over the brown marshes. With them has gone one of the most distinguished figures of the Florida wilds. The state, learning the value of the treasure of which she has been robbed, has passed

COLLECTING A CYPRESS TREE FOR THE EGRET GROUP IN THE AMERICAN MUSEUM OF NATURAL HISTORY

stringent laws prohibiting the killing of Egrets. So, too, she has passed laws against pick-pockets, but just so long as there are pockets worth picking there will be some one to pick them, and just so long as Egrets' plumes are worth their weight in gold there will be some one to supply them, until, a passing fancy gratified, the last plume has found its way from the bonnet to the ash-barrel.

Without one promising lead to follow, I had virtually abandoned the Egret hunt, when from an unexpected quarter word came of an Egret rookery creditable to the days of Audubon. It appears that, when a vast territory was acquired as a game preserve by a club of sportsmen, it contained a few Egrets, survivors of a once flourishing colony. After seven years of rigid protection, they and their

progeny form so conspicuous an element of local bird-life that, on the evening of May 7, 1907, as I reached the region in which they lived, I saw them in dozens flying toward the still distant rookery.

The return at nightfall of birds to their nests, or to a certain roosting-place, is possessed for us of that interest which is attached to all the intelligible actions of animals. The knowledge that the creature has a definite plan or purpose seems to emphasize our kinship with it. So we mark the homeward flight of Heron or of Crow, and, knowing whither they are bound, travel with them in fancy to the journey's end. This has been a fatal habit for the Herons. It mattered little how secluded was the rookery; the hunter found it simply by following their line of flight.

My way to the home of the white-plumed birds was less direct. For hours a little home-made tug, with a swelling wave at her bow, took me through a succession of bays, canals, cut-offs and serpentine creeks, frightening the Gallinules and Blackbirds in the reeds, and surprising an occasional alligator on his favorite mud bank.

A night's rest, and in the morning the journey was resumed through park-like pine forests and under the moss-hung live-oaks, with every tree and plant by leaf and blossom, and every bird by plumage and voice, proclaiming the sweetness, beauty and joy of May. Ten miles of spring's pageant brought me to the moat of the Egrets' stronghold. Here I entered a boat, to pass through an apparently endless flooded forest.

LOUISIANA HERON ON ITS NEST

There are delights of the water and delights of the wood, but when both are combined and one's canoe-path leads through a forest, and that of cypress clad in new lace-like foliage and draped with swaying gray moss, one's exultation of spirit passes all measurable bounds. No snapping of twigs or rustling of leaves betrays one. We paddled so easily, so noiselessly, that we seemed as much inhabitants of the place as the great alligators that sank at our approach.

The Fish Hawks whistled plaintively, but settled on their nests as we passed below them; the Wood Ducks led their broods to the deeper woods; Pileated

and Red-bellied Woodpeckers, Crested Flycatchers, Tufted Tits and glowing Prothonotary Warblers, at home in holes in the cypress; Parula Warblers weaving their cradles in the Spanish moss,—all accepted us as part of the fauna, and it was not until we reached the first dwellings of the rookery that our presence caused alarm.

Here, at the tops of the tallest cypresses, seventy to one hundred feet from the water, the Great Blue Herons had built their broad platforms. With protesting squawks, they stretched their legs, folded their necks and took to the air, leaving their nearly fledged young to peer over the edge of the nest at the disturbing object below. With no less concern, I looked at the disturbing object above. If the Egrets had chosen similar nesting sites they could be photographed only from a balloon.

"THEY CAME CAUTIOUSLY TO THE MORE DISTANT BRANCHES"

Beyond the Great Blue Herons, was a settlement of the singularly marked Yellow-crowned Night Herons. Their nests were within fifteen feet of the water, but they slipped away, so quietly that only close watching showed them disappearing through the trees beyond. For two miles we paddled thus in a bewildering maze of sunlit, buttressed cypress trunks with shiny, round-headed 'knees' protruding from the water, and with every branch heavily moss-draped. The dark waters showed no track, the brown trunks no blaze. We seemed to be voyaging into the unknown.

Finally, the environs were passed and we now approached the most densely populated part of the rookery. Thousands of Louisiana and Little Blue Herons left their nests in the lower branches and bushes, their croaking chorus of alarm punctuated by the louder more raucous squawks of hundreds of Egrets, as they

flew from their nests in the upper branches. It was a confusing and fascinating scene, an admirable climax to the passage through the weird forest.

For a time, I was content to sit quietly in the boat and revel in the charm and beauty of the place, my enjoyment unmarred by the thought that at any moment Satan, in the guise of a plume-hunter, might enter this Eden.

The Little Blue and Louisiana Herons nested at an average height of six to eight feet. One bush held no less than thirty-two nests, all of which contained eggs, few young of either species having yet been hatched. The Egrets nested at an average height of forty feet. Eggs were in some nests, while in others there were nearly fledged young. While far less shy than I had before found them, the birds were still abundantly wary, and obviously could be observed to advantage only from concealment. After some search, a group of nests was dis-

"FLY TO AND FRO WITH CURVED NECK AND STREAMING PLUMES"

A SUDDEN TURN

covered which it was believed could be studied and photographed from a neighboring tree, distant some thirty feet. An umbrella blind of pale green cloth was therefore placed in the tree at a height of forty-five feet, and liberally draped with Spanish moss. It was arranged to fall over a limb which, for

EGRET APPROACHING ITS NEST

The train of closed plumes reaches several inches beyond the tail. Bill retouched by Bruce Horsfall

several hours during each of the three succeeding days, served as the perch from which my notes and photographs were made. I have had more comfortable seats, but few that were so enjoyable. From the concealment of the same blind, it had been my fortune to watch Flamingoes, Pelicans and many other

EXPECTATION
Young Egrets awaiting the coming of the parent with food

ground-nesting birds at close range; but never before had I attempted to enter a bird colony in the tree tops, and the experience was as exhilarating as it was novel. The Little Blue and Louisiana Herons soon returned to their nests below, the former noisy and quarrelsome, calling at each other notes which sounded strangely like *tell you what, tell you what*, the latter less demonstrative and more quiet. The Egrets did not accept the situation so readily. Seven pairs were nesting in the trees near me. Some had eggs, others young birds in various stages of development. Flying to and fro, with curved neck and streaming

REALIZATION—EGRET FEEDING YOUNG

plumes, the parents inspected the blind for some time before they ventured to alight in the home tree. Then they came cautiously to the more distant branches, there to remain indefinitely, while uttering a protesting, rapid *cuk-cuk-cuk* with the regularity and persistance of a metronome. Their strong desire to return to their nest was expressed in an alertness which led them to make frequent changes of attitude. In a large series of pictures of waiting birds, no two have that wonderfully expressive neck in the same position. It is remarkable how the pose of this member affects a Heron's appearance.

Doubtless, the young birds were not a little puzzled by the unusual reluctance of their parents to administer to their wants. In vain they uttered their frog-

like *kek-kek-kek*, and stretched their necks hopefully. The old birds were not assured. So the young resorted to their customary occupations of leg- or wing-stretching, or yawning, or preening a brother's or sister's feathers, picking at imaginary objects here and there, all good exercises for growing birds. The larger ones made little journeys to the limbs near the nests, the neck taking a different curve with every movement, and expressing every emotion from extreme dejection to alert and eager expectancy. Finally, as the old birds were convinced that the blind was harmless, their reward came. With harsh, rattling notes and raised crest one of the parents alit near the nest. Its superbly threatening

EGRETS DISPLAYING THEIR PLUMES
From the Habitat group in the American Museum of Natural History

attitude was clearly not alarming to the young birds, who welcomed it by voice and upstretched, extended neck. Gravely the parent stood regarding its young, while its crest dropped and its pose relaxed. Then, as it stepped to the edge of the nest, it lowered its head, when its bill was immediately seized by one of the youngsters. The young bird did not thrust its bill down the parental throat, nor was the parent's bill introduced into that of its offspring. The hold of the young bird was such as one would take with a pair of shears, if one were to attempt to cut off the adult's bill at the base. In this manner the old bird's head was drawn down into the nest, where the more or less digested fish was disgorged, and at once devoured by the young.

Three days passed before pictures were secured of this singular operation,

which, so far as I am aware, has not been before described or photographed. Doubtless, it is more pleasing to the young Herons than to others less materially concerned, and I confess that I prefer to recall the Egrets flashing white against the dark water, gleaming like snow on the sky, or raising their plumes in dainty coquetry, as the bird on the nest greets the approach of her partner. When spring returns, thanks to the vigilance of their guardians, I can so recall them, and with the assurance that new homes have been added to the settlement in the cypresses.

The Background of Ornithology

Read before the twenty-fifth Congress of the American Ornithologists' Union

By SPENCER TROTTER, Swarthmore College

"THAT strange mystical sense of a life in natural things, and of man's life as a part of nature, drawing strength and color and character from local influences, from hills and streams and natural sights and sounds." Such are Walter Pater's words in an attempt to analyze the genius of Wordsworth and his poetry. But these influences are not peculiar to the poet and the artist. Every one who has come under the charm of nature knows full well what Walter Pater means by "that strange mystical sense of a life in natural things," that "drawing strength and color and character from local influences." To the scientific mind, this may not have the same subtle significance, the same sense of close relationship that marks the poetic mind; for the scientific attitude toward nature is less subjective than that of the poet. And yet, in a way, we are all poets, and much of the joy of our work in the field of science springs from that subconscious self that lies deep in the world of natural things.

It is the happy province of ornithology to have in its subject matter a group of beings at once engaging, appealing to the imagination, and varied in the charm evoked. No matter how far we may pursue the attractive though devious ways of nomenclature, of generic, specific and varietal distinctions, there will always be some bird that hovers in the background of memory,—some song, some nest, some flock of elusive migrants, each blending with some never-to-be-forgotten scene. Perchance an old garden, a windy autumn sky, a delectable woodland spot, a wide stretch of shore. In some such scene we come under the spell of bird-life, with an abounding zeal to know more and yet more of its fascinating problems.

How many birds are associated in our memory with a particular landscape, and how often a bird's voice embodies the spirit of a place. The cool twilights of the northland are blent with the mellow flute notes of Thrushes; the brooding spirit of summer woodlands finds voice in the untiring chant of the Red-eyed Vireo; the tide-rip is in the scream of the Tern, as it follows the shifting school. How much of shade and solitude there is in the Cuckoo's guttural—a note of mystery, like the "wandering voice" of its European congener.

And, again, in the names of birds, how much of the real life is embodied in these. The vernacular is often the expression of subconscious genius, a genius for naming things as old as the race itself. I have traced in old vocabularies, as far back as that of Ælfric (955–1020 A. D.), the vernacular of a number of familiar bird names. Thus 'gull,' as the word stands in our modern dictionaries, may have been derived from several sources; either from the voracious feeding of the bird, or from some notion of foolishness or stupidity connected with it, or even from the yellow color of its beak. Skeat would derive it from the second above noted, which is Celtic in origin—"so called," he says, "from an untrue notion that the *Gull* was a stupid bird." But the name of this bird in the Anglo-Saxon tongue is true to the life—*haefen blaete*—literally a "haven screamer." "Plover," again, is close to its old French and Low Latin origin—meaning of the rain, or belonging to rain—probably, as Skeat suggests, from being "most seen and caught in a rainy season." Its German name, *regenpfeifer*—the 'rain piper'—suggests a similar idea.

Among our own birds, this same genius for names has been at work. What more appropriate title than 'Bobolink' for the gay jingler of our meadows, or 'Flicker' or 'Phoebe,' 'Veery' or 'Hermit,' 'Chewink' or 'Chickadee,' or that array of Warbler names so rich in color suggestion? What *other* Sparrow could have been the *Song* Sparrow —or what other one the *Chipping* Sparrow? Names indicative of haunts call up a background picture of sea beaches in 'Sandpiper' and 'Sanderling'; of bosky glades in 'Woodcock' and 'Wood Thrush,' and of the homestead in 'Barn Swallow' and 'House Wren.' Even scientific nomenclature has been touched by this genius for names. What more appropriate for a group of Woodpeckers than *Dryobates*, a treader of oaks; or the name applied to one of its varietal forms—*hyloscopus*, watching over woodland; *Poocetes*, a dweller in meadow grass, is a poem in itself, and *Hesperiphona*, the sunset voice—is the golden glow of the West.

That dual personality that haunts most of us is strangely alive in the ornithologist. Even in the most rigidly scientific devotee, in whom the pleasure seems altogether to be in the pursuit of the determining character or the qualifying title, there is still joy in the living bird and its background. And often this deeper scientific knowledge brings a deeper and more real appreciation of the esthetic quality of bird life. Bliss Perry has somewhere remarked on two contrasted points of view regarding the Skylark—two definitions that stand for the poetic and the scientific type of mind. "In the Century Dictionary," says Mr. Perry, "the Skylark is described as a small oscine, passerine bird of the family Alaudidæ . . . insectivorous and migratory; in your Shelley the same bird is pictured as an unbodied joy." Now these two definitions are both admirable and both may be entertained by the same mind, and I hold that to the catholic spirit the first—the scientific definition—is rich in poetic suggestion. What more delightful conception than that of *oscine*—the ancient name for a divining bird, one whose notes were augural, whose *syrinx*—a reed pipe borrowed

from the great god Pan—charms us to this day. Curiously enough, too, the Lark is apparently connected in the old Celtic mythology with a notion that its song was of ill omen, and 'laverock' has the same significance. *Alaudidæ*, from *Alauda*, a supposedly Celtic word meaning the *high song*. "Insectivorous" calls up a picture of the bird foraging over arable land in quest of its choice food, and "migratory" has in it all of the mystery and fascination of that marvelous instinct of bird life. Scientific knowledge, aside from its recognized utility, is thus an added power for appreciation.

Ornithology has a literary background, as well as the larger background of nature. Who has not some richly stored memories of Wilson or of Audubon? To have come upon these books in the formative period of one's life was indeed a happy circumstance. I remember one spring, many years ago, poring over the second volume of The Birds of America. Each plate and its accompanying text became a part of my mental life. And that May I saw my first Warbler—a Chestnut-sided—an atom of the migratory wave, of which I then knew nothing, swept, as I thought, by some miracle, into a solitary tree in the back yard of a city residence. Audubon's account of this species was to the effect that he had shot five of these birds one cold May morning in the year 1808, at Pottsgrove, Pennsylvania. Whatever else he had written was for the moment forgotten. I had seen the sixth individual of its kind, and I went to school that day in a state of mind which only those who have had a like experience will understand. And Wilson was a delight. An early edition of the 'American Ornithology' was an heirloom in my family. It was deliciously musty, and the plates had made copper-colored impressions on the opposite pages of the text. In the distribution of things, these volumes drifted to me, and a turn of their old leaves still unlocks a gate that opens on 'The Road to Yesterday.'

Those of us who acquired a taste for ornithology in the seventies can never forget the 'Key to North American Birds,' 'Birds of the Northwest,' and Field Ornithology', nor Samuels' 'Birds of New England', nor Baird, Brewer and Ridgways' work, nor even the old Smithsonian 'Check-list.'

This reminiscence suggests another background—that of history—the change of habit and of habitat of many birds, as the forests were cleared and the land became domesticated. I have elsewhere dwelt on this aspect of our bird life in a paper published some years ago in the 'Popular Science Monthly.' In that paper, entitled 'Birds of the Grasslands', I thought to show that certain of our eastern field birds—those that are peculiar to the open tracts of country, like the Vesper, the Grasshopper and Savanna Sparrows, the Meadowlark and the Dickcissel—might be a surplus population from the prairie region. The history of the Dickcissel in the east gave a strong color to this view. It was either this or a radical change of habit in the several species concerned. Today I do not feel as sure of the solution as I did at the time of writing that paper. The problem to me, however, is one of very great interest—this effect of the settlement of a country on its bird life. If I may be allowed to quote a paragraph

from that article:—"We can picture to ourselves a few prairie stragglers finding their way into the newly cleared lands of the settlers and gradually establishing themselves in the eastern fields. By what route they came is a matter of conjecture—probably from the southwest in the northward-setting tide of the spring migration, or possibly by way of the Great Lakes and St. Lawrence Valley." Still, as I said before, I do not feel quite so sure of the actual facts as I did fifteen years ago. One acquires a habit of enjoying the idea—the broad sketch with its hazy outlines—without bothering about the finished picture. The settlement of the land has, as we know, greatly altered the status of bird life and has added a background of domesticity quite as charming in its way as the wilderness.

One other background which some of us—not all of us—love—the ornithologist's own collection. That collection made in the days of one's youth, each specimen, ill-shapen though it may be, forever potent to conjure the scene and the hour of its eventful capture. And the smell of those old boxes and chests of drawers—what fragrant memories are evoked!

These backgrounds seem to me to be the very soul of ornithology. What branch of science comes nearer to satisfying that primitive instinct in a man—that instinct that takes him into the woods to hunt and fish or for the mere sake of steeping the senses in the fresh, rank life of things, and at the same time abundantly satisfying the acquisitive and classifying habit of mind?

Each one of us holds some secret key—some open sesame—into the delightful background, and in the words of Keats in his "Ode to a Nightingale" so may we apostrophize the bird of our imagination—

"Thou wast not born for death, immortal Bird!
No hungry generations tread thee down;
The voice I hear this passing night was heard
In ancient days by emperor and clown;
Perhaps the self-same song that found a path
Through the sad heart of Ruth, when, sick for home,
She stood in tears amid the alien corn;
The same that oft-times hath
Charm'd magic casements, opening on the foam
Of perilous seas, in faery lands forlorn."

The Nest in the Gutter

By GILBERT H. TRAFTON, Passaic, N. J.

Photographs by the author

ON the morning of June 30, my little girl informed me that she had seen a bird's nest on the roof of the house. I went out to investigate, thinking that an English Sparrow had probably chosen the gutter for its nesting site; but I was much surprised to see the white-tipped tail and black bill of a Kingbird projecting from the sides of a nest which was closely fitted into one end of the gutter. This suggested one of the first steps in the process of evolution by which the Kingbird may change its nesting habits to adapt them to the advent of man, as its cousin the Phoebe, and other birds have already done. I had seen a Kingbird keeping watch in a neighboring orchard, but I had not supposed its nest was so near. As I was watching, one of the birds flew to the edge of the nest, and, after waiting till its mate had come and settled on the eggs, flew away.

Lest the birds might be frightened away, I decided to make no examination of the nest till the young had hatched. During the following week a bird was almost constantly on the nest. Several times I observed the bird on the nest being fed by its mate, and from my observations I judged this to be the way in which the bird usually obtained its food. On one occasion, the birds changed places on the nest.

On July 6, I first saw the yellow bills of the young appear over the edge of the nest, while the parent was standing by with outspread wings to shield the young from the intense rays of the midday sun. I then ventured for the first time to look into the nest, using a long ladder reaching to the eaves. As I ascended the ladder and came near the nest, both birds flew furiously around me, uttering loud cries and dashing at my head with a whir of wings and snap of the bill, which suggested an unpleasant experience in case the birds came nearer. The nest contained four little ones, covered with a soft white coating of long fluffy down, looking like so many balls of freshly combed cotton.

During the first part of the day, my presence near the corner of the house, even while on the ground, was sufficient cause for the birds to fly around, uttering cries of alarm, but later in the day they became quiet, so that I was able to remain near without disturbing them. That the birds might become accustomed to the ladder, I left it near the nest for the first day; on the following forenoon a tripod was attached to the ladder, and in the afternoon the camera was set up and the first picture taken, using a long piece of linen thread to snap the shutter. Although the birds flew at me fiercely while working at the camera, yet no sooner had I reached the ground than one of them was at the nest.

The day was an exceedingly hot one, and the parents spent most of the time during the middle of the day standing over the nest with wings outspread, to shield the young from the hot sun, themselves panting, meanwhile, with wide-

opened bill. After I had taken the first picture, the bird remained standing quietly over the nest while I changed the plates, focused the camera and snapped the shutter for another exposure.

Pictures were taken every two or three days, but the longer I worked with the birds the more fierce became their attacks upon me, quite in contrast with a pair of Chickadees with which I had been working a few days before, which came and fed their young without paying any attention to me while I was standing near, arranging the camera. After the second day, whenever I approached near enough the nest to set up the camera, the Kingbirds flew at me furiously, poising themselves above me and then darting quickly at my head, now coming near enough to strike me with their bill. In no case was blood drawn, but, as they usually struck about the same spot each time, I was glad of an excuse to cover my head with a cloth while focusing the camera. Their rage seemed to grow from day to day, and on the morning of the fifth day my appearance outdoors was the signal for both birds to hover over my head and utter loud cries, while waiting for an opportunity to dart down at me. In the afternoon of the same day, while I was watching the birds from a distance of about fifty feet, one of them, which had been standing on the gutter near the nest, suddenly made a dash straight for my head with such speed and quickness that I barely had time to throw up my arm to ward off the attack. They never attacked me unless both birds were present, and even then only one came near enough to strike me.

KINGBIRD SHIELDING YOUNG FROM THE RAYS OF THE SUN

An occurrence on the fourth day, which might have resulted in a tragedy, doubtless tended to strengthen the feeling of antagonism which the birds displayed. It was an extremely hot day, and, as there were no trees near the house, I fastened a bough of a tree to the ladder in such a way as to shade the nest. Although the birds attacked me vigorously as usual, I thought that the shade might prove just as grateful even if furnished against their will. During the afternoon a terrific thunderstorm arose, in which the rain fell in torrents and was accompanied by a gale of wind which blew the bough and ladder past the nest, tearing off one of the shingles near. After the storm I looked at the nesting site, expecting to find that the torrents had washed the nest and young from the gutter, but fortunately everything was as usual, and apparently both nest and young were in as good condition as ever.

The food given the young seemed to consist chiefly of small insects, too

small to be identified, even with a powerful field glass. Occasionally a mulberry was brought from a neighboring tree. During the second day the parents spent most of their time standing over the nest with outstretched wings, to protect the young from the sun's rays. During the middle of the day the young were fed only occasionally, but later in the day they were fed oftener; but still they were shielded by the parents, who changed their position a little to one side, as the sun sank nearer the horizon. Likewise, on the forenoon of the fourth day, the morning being very hot, the attention of the parents was given to hovering the young rather than to feeding them. Later in the forenoon when the sky became clouded, they stopped hovering and fed the young oftener. This was the last day that the birds were observed to shield the young from the heat of the sun.

KINGBIRD PREPARING TO FEED YOUNG

The work of feeding the young was about equally shared by both birds, who showed themselves in this, as in other ways, a loyal and devoted couple. After feeding the young birds, the parents would frequently remain standing on the gutter shielding the nest, or at some point near, till its mate returned.

The frequency of feeding seemed to depend on the age of the young, the kind of day and the time of day. The older the young grew the oftener they were fed. During the first few days they were fed oftener on a cloudy day and less often during the middle of the hot days, the attention of the parents being engaged in protecting the young from the sun's rays.

Observations were made every few days on the feeding habits for periods ranging from thirty minutes to two hours, with the following results.

Day	Kind of day	Time of day	Times fed in an hour
Second	Very hot	Noon	10
Fourth	Very hot	Middle of forenoon	15
Sixth	Medium	Last of forenoon	16
Eighth	Medium	Middle of afternoon	20
Ninth	Medium	Middle of forenoon	25

Frequently food was brought so often by the parents that one was obliged to wait near the nest till its mate had finished disposing of the provisions which it was parceling out to four hungry mouths.

On July 16, when ten days old, the first bird left the nest, and on the forenoon of the next day the other three, one at a time, flew off to a neighboring tree. My camera was set up ready to take a picture of the last, and I was just about to push the shutter when he made a sudden departure and disappeared among the foliage of a neighboring maple. Later in the day, however, I found him again and placed him back in the nest, having first prepared the camera so that I might lose no time in taking his picture. But my haste proved uncalled for, as he was in no hurry to leave again, but apparently glad to return home once more after his first experience out in the great wide world. He remained there all the rest of the afternoon, as motionless as the gutter upon which he perched. And, when at dusk I passed by, his white breast and throat stood out as a conspicuous landmark of the old homestead in whose narrow confines his life thus far had been spent. In the morning he was gone, and only the bare nest remained as a reminder of an interesting family history.

The family was seen frequently around the orchard, and, after the young had been out of the nest a week, the whole family of six was discovered in an apple tree. The young remained here for a half hour and during that interval were fed ten times by the parents. They then flew away and scattered among the neighboring trees.

Although there were no color markings to distinguish the sexes, yet the two showed sufficient differences in habit to be told apart. Most of the incubating was done by one bird, which presumably was the female. After the young were hatched, one showed more persistence in remaining at the nest when I was near, and only one when attacking me came near enough to strike me. This one I also took to be the female. And, when approaching the nest, there was a difference in the number of call notes uttered by each.

This pair showed none of the reputed pugnacity of the Kingbird toward other birds. Eight to ten species of birds commonly frequented the house and trees near, the audacious English Sparrow even perching on the eaves near the nest, but the Kingbirds made no attempt to drive the other birds away. Several other nests of Kingbirds were discovered in the vicinity, and their occupants showed the same tolerance toward other birds and the same pugnacity toward human beings. The Crow was the only bird that I saw the Kingbirds chasing.

After the young had left the nest, I removed it and examined the material of which it was composed. The nest was boat-shaped in appearance, following the outline of the gutter. On the outside was a mass of coarse material consisting of strings, cotton, three kinds of cloth, a long piece of narrow tape, some knit goods, a piece of linen, feathers, dried grass, rootlets and heads of several kinds of composite flowers. Inside of this skeleton was a fine meshwork of rootlets completely lining the coarser material; inside of this was a layer of rather coarse grasses, and in this on the bottom of the nest were a few horsehairs. Thus there were four distinct layers, the coarse material on the outside, the net of rootlets,

the layer of grass stems and the scattering of hairs. Other nests found in the vicinity agreed in having this fine network of rootlets as one of the middle layers.

The feature of special interest about the nest was the large amount of such material as strings, pieces of cloth, etc., as suggesting that much may be done to induce birds to nest around our houses by exposing in appropriate places during the nesting season such materials as birds are found to use in nest building.

MALLARD ON NEST
Photographed by George Shiras 3d.

The Migration of Flycatchers

THIRD PAPER

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

With drawings by Louis Agassiz Fuertes and Bruce Horsfall

HAMMOND'S FLYCATCHER

Wintering south of the United States, this species returned to the Catalina Mountains, Arizona, March 31, 1885, and to Los Angeles, California, April 9, 1896. It does not breed at either of these localities, and the last bird in the spring was seen at the former place May 10, and at the latter, May 9. The first record for Okanagan Landing, B. C., is May 14, 1906, and at Glacier, Alaska, June 8, 1899.

The first fall migrants were noted in the Huachuca Mountains, Arizona, August 26, and the last, in the Catalina Mountains, Arizona, October 25. The latest record at Los Angeles, California, is October 30, 1897.

WRIGHT'S FLYCATCHER

A few Wright's Flycatchers winter in southern California and move north in April, arriving in southern British Columbia the latter part of the month. The first were seen in southern Arizona, April 17, 1902. The average date of arrival at Columbia Falls, Mont., is May 7, the earliest being April 24, 1895. In northeastern Colorado, the average is May 11, the earliest, May 9, 1906.

GRAY FLYCATCHER

This species winters in Mexico, a few remaining at this season in southern Arizona and southern California. It migrates north, to breed in the mountains of southern Arizona and Los Angeles County, California, this short migration being performed in early April.

BUFF-BREASTED FLYCATCHER

This is the rarest Flycatcher in the United States. It winters in Mexico, a few coming north to breed in southwestern New Mexico and southern Arizona. They arrived in the Huachucas, Arizona, April 20, 1902, April 12, 1903; Santa Rita Mountains, April 20, 1899, and in the Chiracahua Mountains, Arizona, April 12, 1880.

WESTERN FLYCATCHER

This form replaces the Yellow-bellied Flycatcher from the Plains to the Pacific. It arrived in the Huachuca Mountains, Arizona, April 10, 1902; Terry, Mont., May 18, 1894, May 19, 1896; southern California, average March 20,

earliest March 13, 1865; central California, average, April 1, earliest, March 16, 1877; southern British Columbia, April 16, 1888, April 23, 1889, April 18, 1905. The species has been noted in southern California as late as October 10, and in southern Arizona until October 28.

ST. LUCAS FLYCATCHER

This form of the Western Flycatcher is a resident in Lower California and in San Diego County, California.

The Common Names of North American Birds

The Editor of BIRD-LORE is quite right in saying that only such changes in the common names of birds as seem to be necessary should be made. Such as are made should be with the object of giving a more fitting name to the bird than it now has.

There are two classes of birds' names that do not fit the birds to which they are given, and might be changed for the better. I refer to the naming of birds for cities or states which form only a small part, if any, of their range, and to names that do not fit the habits of the birds to which they are given. In the first class are the Nashville Warbler and Philadelphia Vireo, and in the second the Field and Tree Sparrows.

For such birds as the Wilson's Thrush and House Finch, the most common name should be taken. In the case of the Bartramian Sandpiper, the popular name of Upland Plover is misleading. A compromise between the two names might be made, and Upland Sandpiper accepted.

Mr. W. L. Dawson, in the February BIRD-LORE, speaks of the Louisiana Water Thrush being a hard name to accept or alter. How would Southern Water or Brook Warbler do?

The plan for an exact and consistent system of English names for subspecies, as well as for full species, is good and should be accepted. A few other suggestions for changes follow. Change

'Tree' to *Canadian* Sparrow.
'Field' to *Bush* or *Pasture* Sparrow.
'Philadelphia' to *Canadian* Vireo.
Cape May' to *Red-cheeked* Warbler.
'Nashville' to *Birch* Warbler.
'Magnolia' to *Spruce* Warbler.
'Palm' to *Red-poll* Warbler.
'Water-Thrush' to *Water* or *Brook Warbler*.
'Purple' to *Crimson* Finch.
'Saw-whet' to *Acadian* Owl.—EDWARD H. PERKINS, *Tilton, N. H*

Notes from Field and Study

The Value of the Starling

In the answers to BIRD-LORE'S call for information concerning the habits of the English Starling and its effect upon native birds, there seems to be an absence of positive observation of bad traits in these birds. I have known them since they were first found in Norwalk, as told by Mr. George Ells, and own to no little pleasure derived from watching them through the year. Their cheery call gives pleasure to many all winter, and to those who go afield their flock-flights over the meadows and marshes are most pleasing, and their coming near to the houses to feed during bad winter weather gives delight to more. Sentiment aside, the question is, are they going to prove beneficial or otherwise, in their new home, and what is to be the effect upon our native birds? A Flicker built and raised her brood for several years in a maple across from my home. The Flickers came back the spring of 1905, to find a pair of Starlings in possession of the hole in their favorite stub, and a fight ensued which lasted all day. The Starlings were finally vanquished, and the Flicker drilled a new hole and raised her brood.

I know an old tree which always had its pair of Bluebirds nesting in its cavities, now the Starlings own the tree. I did not see them dispossessed, but if the Flicker only just held her own, what show can the Bluebird or Downy Woodpecker have against the Starling?

A farmer who lives where these birds are plentiful complains bitterly because flocks settle in the top of his apple trees and eat the apples and spoil many more; and every one knows their fondness for apples when they gather on any tree which contains fruit in the winter. December 10, nearly two hundred of them were in the apple trees near my home, eating frozen apples, showing their fondness for this diet. A Mrs. Aiken, since deceased, one who loved birds, told me that while living in Greenwich, Conn., last spring, she watched the Starlings and one day, hearing a commotion outside, looked out in time to see a Starling flying from an apple tree with a Robin's egg in its bill. Of this she was positive. This is a serious charge against him, and whether these traits will grow and the bird, like the English Sparrow, become an unwelcome guest, remains to be seen.

This much may be said for them: they are industrious gleaners over the meadows and must do much good, as any one must know who has watched their journeying back and forth, while feeding their young; and, should they grow too numerous and prove destructive, their size would make them desirable for Starling pot-pie, by the many who chafe under the restraint put upon them by the laws protecting Flickers, Meadowlarks and other like birds. Their companionship and cheery whistle during the winter makes us hope that they will ever remain welcome.—WILBUR F. SMITH, *South Norwalk, Conn.*

A Strange Friendship

Some time ago I took home to my children a Quail which had had one of its wings injured, intending to let him go in the spring, but in the meantime 'Fritz,' (as the children named him), became so attached to us all that he refused to fly away when liberated.

Our cat is a good mouser, but also a great pet, and soon 'Woollie' and 'Fritz' became bosom friends. The cat likes to have 'Fritz' walk all over him, and they eat and sleep together. 'Woollie,' on one occasion, more than proved his friendship toward the Quail. During the summer it happened that we all went away and left the two pets alone over-night. We had left orders for the milkman to fill the cat's dish in the yard with milk, which he did, but, alas! poor 'Woollie' did not get a drop of it, for somehow, during the excitement of getting away, the cat had slipped into

the little room in which the Quail has his abode and is free to walk about. When we returned, very late the following night, we heard the cat scratching within, and we expected to see nothing left but the feathers of the Quail to tell the tale; but such was not the case, for 'Woollie,' in spite of his two days' fasting, had not touched the bird. One of the Quail's latest achievements is to defend the children when they play with the dog. He flies at the dog, flaps his wings, pecks him and whistles at the top of his voice, until the dog stops jumping at the children.

I am learning the Quail language and can tell what is the matter with 'Fritz' when in the next room. He makes a great many different sounds, which all have their meaning, for he always makes the same sounds for the same thing. By closely observing this for some time, I can now tell by the sounds of his voice when he is afraid, pleased, angry, surprised, contented or lonely. When any one enters, he has a certain sound as if greeting them. —A. H. Schippang, *Bethlehem, Pa.*

QUAIL ON CAT
Photographed from life

Trustful Birds

Early in June, 1907, I found a nest of the Wood Thrush along the Brandywine, in Pennsylvania. The mother bird was sitting on four eggs. By approaching her very quietly and gradually, she would allow me to stroke her and, at the end of two or three visits, would eat bread from my hand. Once the nest tipped over a little, and I straightened it up without flushing her from the nest, though she watched closely to see what I was doing. The young were successfully reared.

Last week I was among the mountains of Pike county, and saw a Crested Flycatcher moving restlessly around among the trees. Upon calling to him gently, he came flying down to a low branch. After a careful survey of the surroundings, he saw nothing to alarm, and allowed me to smooth down his ruffled feathers with my hand. I played with him for several minutes, and he seemed to be glad to have company.

Last fall one of my neighbors was walk-

ing through the woods in New Jersey with his children. They came across a family of young Goldfinches in the bushes, that were chirping as if they were lonely. The children stopped and called back to the birds, and presently the latter, one at a time, fluttered down, alighting on the heads and arms of the children, and resting there contentedly. The secret of being able to catch wild birds in this way seems to be in great deliberation of movement.—R. P. SHARPLES, *West Chester, Pa.*

The Most Southern Starling Record

Several Starlings (*Sturnus vulgaris*), which I saw from the train window as I was passing through Tacony, Penn., on December 9, 1907, are, apparently, the first that have been noticed near Philadelphia. As they were not far away and were flying, I do not think I could have been mistaken in their identity.—LOUIS B. BISHOP, *New Haven, Conn.*

A Brown Creeper's Mistake

One of the most novel and pleasing of many interesting incidents of my wanderings afield enlivened a recent stroll through a second-growth woodland near my home. While walking along a wide wood-path, I stopped to observe a mixed flock of winter birds in the trees nearby. There were Chickadees, Golden-crowned Kinglets, a Downy Woodpecker and a Brown Creeper, the latter being the first I had seen this season. For this reason, and also because this species is much rarer than the others, I was watching it closely through my field glass, standing almost motionless in the center of the path; meanwhile, it flew to the base of a chestnut tree about fifty feet from me, and hitched its way up the rough bark. It had reached the lowest branches, about twenty feet from the ground, when suddenly it left the tree and darted straight at me, and, to my amazement, alighted on the left leg of my trousers, just above my shoe, in front, evidently mistaking the black and gray color for the bark of a tree. I was as quiet as possible, merely bending my neck a little to get a better view. The little fellow headed almost straight upward; but the texture of the cloth must have felt much different from the bark of a tree to his grasping toes, for he worked up only two or three inches and then fluttered off and went around to the back, where I think he lit again, as I felt a slight movement of the cloth. After waiting a few moments and feeling nothing more, I turned cautiously and found that he had gone. A little search revealed him climbing a nearby tree in the same business-like manner as usual, as though his recent experience had already passed from his memory. In mine, however, it made a much more lasting impression.—CLARENCE M. ARNOLD, *Woonsocket, R. I.*

Notes on Kirtland's Warbler at Ann Arbor, Mich.

The spring of 1907 seemed to be prolific in exceptional occurrences among the Warblers, many species being noted in considerable numbers which, during past seasons, have been looked upon as quite rare.

Among my more noteworthy records for May, are two concerning the Kirtland Warbler (*Dendroica kirtlandi*). The first record was made on the 13th of the month, of a single individual in a pine hedge near the cemetery. When first noted it was apparently feeding in this hedge, but soon flew to a small elm tree within twenty or thirty feet of the observer, allowing an excellent view of it through field-glasses. For the most part, it was silent except for an occasional call-note, accompanied by a 'teetering' of the tail similar to the characteristic habit of the Palm Warbler.

On the 16th of the month, three days after the first record, much to my surprise and gratification, a second Kirtland Warbler was found in the vicinity of the Huron river. This one was feeding on the side of a steep ridge bordering the river on the south and, flitting from bush to bush, it evinced an utter lack of fear, permitting me to approach to within a sur-

prisingly short distance. It was silent but wagged its tail as in the other case.—A. D. TINKER, *Ann Harbor, Mich.*

A Winter Rose-breasted Grosbeak

From January 26 up to today (February 13), there has been in and about our yard here a bird which I think I can positively identify as an immature male Rose-breasted Grosbeak. This bird has been about practically every day, including some days when there was five inches of snow on the ground and the thermometer was down to zero. The bird's chief food seems to be the seeds of the common honeysuckle; it also eats suet, and a number of times has been down on the ground picking up crumbs with the English and Tree Sparrows.

As this bird is now getting rather tame—eating suet from a lilac bush just outside our window—I shall no doubt have the opportunity to make further study of it, and possibly get some photographs later on.—CLARENCE D. BROWN, *Rutherford, N. J.*

TREE SPARROW
Photographed by C. D. Brown

A WINTER ROSE-BREASTED GROSBEAK
Photographed by C. D. Brown

[Mr. Brown subsequently sent the photograph, herewith published, confirming his identification in the most satisfactory manner. The portrait of a Tree Sparrow, which posed for him while waiting for the Grosbeak, is also presented.—ED.]

Notes on the Mourning Dove

On May 20, 1907, a curious nest of the Mourning Dove was found in a rather deep ravine leading down to the Huron river. The birds had apparently appropriated the home of a pair of Robins, as the nest was in too good a state of repair to be a last-year's one, and, in their usual careless manner, had laid a few twigs and rootlets on the top of it, forming a two-storied

structure. One of the Doves was on the nest when discovered, but no eggs were present. This nest was afterward abandoned, for some unknown reason.

Another nest of this species was noted on May 28, in the same general locality, but was placed on the ground. The nest, a simple affair of dried grasses and a very few twigs, was situated at the foot of a tree about half-way up the side of the ravine, and contained two fresh eggs with the old bird sitting. Three days later the nest was revisited but the eggs were gone and the nest apparently abandoned.

A similar nest was located by another party earlier in the season. This one was placed at the base of an apple tree in rather an extensive orchard, and also contained eggs.—A. D. TINKER, *Ann Harbor, Mich.*

A Winter Robin

It has occured to me that the readers of BIRD-LORE might be interested to know that, on January 10, the writer saw a Robin in the city of Chicago. The bird was very much alive, although apparently puzzled and disturbed. It was in a tree on the side of a bricked street, within two squares of Lake Michigan. The mean temperature for that day was 36°; the ground was bare, and the wind from the south. The first dates on which a Robin was seen by the writer for the past three years are February 24, 1905, February 22, 1906, February 16, 1907.—PERCIVAL B. COFFIN, *Chicago, Ill.*

Nature's Remedies

Nature does not run this world on humanitarian principles. If any forms of life become too numerous, she finds a plan to check them. And while it may be hard on the individual, and may cause unthinking people to call it cruel, yet it is the divine law of the universe and is for the good of the community. There have been several exemplifications of this law in Pennsylvania recently. For years the English Sparrows have been an ever-increasing nuisance to both farmers and town-dwellers, but there is a measure of relief in sight. In West Chester, a town of 11,000 people, there are dozens of little red and gray Screech Owls hiding in the old dead trees in daytime, and at night sallying forth to make a meal on the English Sparrows. They are making their mark, too, for the Sparrows are becoming less abundant to a considerable extent, and the people have come to a realization of the good the Owls do, and are giving them protection. Along this same line might be noted the entire absence, during the past season, of the potato bugs. Some disease seems to have attacked them, and last summer they were absolutely wiped off the face of the earth so far as this part of the country is concerned.—ROBERT P. SHARPLES, *West Chester, Pa.*

Over-productive Robins

A friend of mine, a physician and a thoroughly reliable man, tells me of a pair of Robins which rather overdid the matter of brood-rearing last summer, in the town of Strasburg, this county. They built their nest on some vines trailing about a veranda, so that they could be easily watched. Instead of laying the usual Robin clutch of eggs, the female laid eight. My informant declares that they were all Robin's eggs, and none of them the eggs of the Cowbird. He says he has known the Robin's eggs since his boyhood days, and cannot be mistaken in this instance.

In due time all the eggs were hatched. As the bantlings grew, the nest began to overflow, and, one by one, at least three, perhaps four, of them were crowded over the edge, fell to the ground, and were found lying there dead, still too young to be taken care of outside the nest. Four of the birds remained in the nest till they were able to fly, when they were brought off safely. I do not believe such over-calculations are frequent in Robindom, or in any other part of the bird domain. Do other observers know of such instances?—LEANDER S. KEYSER, *Canal Dover, O.*

Book News and Reviews

GILBERT WHITE OF SELBORNE. A lecture by W. H. MULLENS. London. Witherby & Co., 326 High Holborn. 1907. 8vo. 32 pages, 7 plates. Price 2s. 6d., net.

Every American nature-lover who visits England without making a pilgrimage to Selborne fails in his duty to Gilbert White's memory and to himself. The reasons why one should gladly pay his tribute to White are obvious; but, if this father of local naturalists had not made his own little world famous, it would still be well worth seeing for its own sake, and particularly for the opportunities it offers to the stranger to become acquainted with the commoner English birds. But, whether or not one can enjoy the charm of Selborne's pastoral beauty and its vivifying influence on his impressions of White, Mr. Mullens' treatise is well worth having for the information it contains of White, of Selborne, and of the classic 'Natural History and Antiquities.'—F. M. C.

BIRDS OF CALIFORNIA IN RELATION TO THE FRUIT INDUSTRY. Part I. By F. E. L. BEAL. Bulletin No. 30, Biological Survey. 8vo. 100 pages, 5 plates.

Professor Beal has passed three fruit seasons in California, gathering the material on which this important paper is based. The comparative scarcity of wild fruits in the regions devoted to orchards, together with the fact that orchards developed by irrigation prove attractive oases for many species of frugivorous birds, has made the destruction of fruit by birds a more serious question in the West than it is in the East.

Professor Beal presents at length the evidence he has secured by observation in the field, and by analyses of stomach contents, and concludes that only the House Finch or Linnet is sufficiently destructive to fruit to warrant a reduction in its numbers. Other species may appear to be harmful, but a record of their food, at all seasons, shows a balance in their favor. None of those, he says, most directly concerned "advocated measures for the extermination, or even the material decrease, of birds." "We can't get along without the birds" was a sentiment voiced by many and endorsed by all.

LIST OF BIRDS LIVING IN THE NEW YORK ZOÖLOGICAL PARK, December 31, 1906. Reprinted from the Eleventh Annual Report of the New York Zoölogical Society. 20 pages.

In an editorial footnote to this publication, we are informed that "in the great majority of cases the Society holds that the publication of lengthy lists of names is uninteresting to the public and therefore undesirable." An exception, however, has been made in the present case, "partly on account of the universal interest in living birds, and also because of our need of a printed check-list of our bird collection."

Without pausing to inquire why lists of the mammals and reptiles living in the park would not also be both interesting and useful, we are sure that aviculturists, artists and bird students in general will welcome this statement of the splendid collection of birds which Mr. Beebe, the Society's Curator, has brought together.—F. M. C.

GEOGRAPHIC VARIATION IN BIRDS WITH ESPECIAL REFERENCE TO THE EFFECTS OF HUMIDITY. By C. WILLIAM BEEBE, Curator of Birds. Zoölogica, Vol. 1, No. 1. 8vo., 41 pages, 5 half-tone plates. Published by the New York Zoölogical Society.

Zoölogical parks are so often considered mere menageries for the exhibition of living animals that we always think with satisfaction of Mr. Beebe's admirable work with the birds of the New York Zoölogical Society. As Mr. Beebe remarks, "It has long been known that many mammals, birds and reptiles, inhabiting a moist, humid region show a much darker or increased pigmentation of the hair, feathers or scales than individuals from drier localities." Mr. Beebe,

however, is, we believe, the first naturalist to demonstrate by actual experimentation the relation between humidity and intensity in birds' colors.

He presents a historical review of the subject, and discusses dichromatism and sporadic melanism, but the chief interest in this paper centers in the results of his subjection of a White-throated Sparrow, a Wood Thrush and Inca Doves to an atmosphere with a humidity of 84 per cent, this being .11 greater than the mean annual humidity of New York City. In each instance, after a period of between two and three years for the Thrush and Sparrow, and as many as six years for one of the Doves, the plumage showed a great increase in pigment, the Sparrow being nearly black, the Thrush and Dove with the black areas largely increased. In no case, it should be noted, was there a change without molt.

In discussing the philospohic aspects of the case, Mr. Beebe concludes that such ontogentic variations are somatic, and would not affect the offspring of the birds exhibiting them, and that we have as yet no means of telling when or how such modifications would become congenital.—F. M. C.

REPORT OF THE SECRETARY OF AGRICULTURE ON THE WORK OF THE BIOLOGICAL SURVEY. Senate Document No. 132. Dec. 1907. 8vo. 29 pages, 6 maps.

We imagine that even those who are most familiar with the admirable work of the Biological Survey will be surprised by this summary of what it has accomplished since its formation. The results of its investigations of the food habits of birds have formed the very backbone of bird protection throughout this country, and are cited as models wherever the subject of economic ornithology is considered. Its faunal and systematic work, aside from its importance in establishing Life Areas, is of the highest scientific value, while its activity in game protection under the provisions of the Lacey act, have strengthened the game laws of every state and territory by unifying the interests involved, and arousing a spirit of cooperation among those whose duty it is to protect our wild life.

The Survey has published over 7,000 pages of printed matter. Most of this is unique in character, or, in other words, if it had not been prepared by the Survey it would not be in existence; which is only another way of saying that if it were not for the researches of the Survey we should not know much more about the general food habits and economic value of our birds and animals than we did twenty-five years ago.

On the merits of this summary, the Survey clearly deserves to be ranked among those branches of the government service which are making returns of the most practical value to the people.—F. M. C.

REPORT OF THE CHIEF OF THE BUREAU OF BIOLOGICAL SURVEY FOR 1907. By C. HART MERRIAM. From Annual Reports, Department of Agriculture, Washington, 1908. 8vo. 23 pages.

The wide and varied field covered by the Biological Survey is evidenced by this summary of its activities during 1907. In economic mammalogy, the Bureau has investigated the relations of coyotes, wolves, rabbits and other destructive native species, of house rats and bacterial diseases. In economic ornithology, work has been done on birds in relation to scale insects, to fruits and to the cotton-boll weevil. The food of wild Ducks is being investigated and a report on the food of Grosbeaks has been concluded. A report on means of attracting birds is promised, but, in the meantime, information in regard to this subject may be obtained on application to the Survey. A bulletin is also in preparation on the distribution and migration of shore birds.

Other phases of the Bureau's work, to which attention is here called, are the distribution of trees, the establishment of life and crop zones, the supervision of the importation of foreign birds and mammals and of bird reservations, the protection of game in Alaska, the publication of the game laws of the United States and

Canada, and other bulletins in connection with the enforcement of the law.

The publications of the Survey during the year include one 'North American Fauna,' two 'Bulletins,' four 'Grosbeak' articles, two 'Farmers' Bulletins,' eight circulars, the Report of the Acting Chief for 1906, and nine reprints of former publications. This is a record entitling the Survey to the thanks of every one interested theoretically or practically in the increasingly complicated economic relations of our birds and mammals.—F. M. C.

OUR BIRD COMRADES. By LEANDER S. KEYSER. Rand, McNally & Company. 12mo. 197 pages, 16 colored plates.

Mr. Keyser here brings together in a well-printed volume a number of the studies from nature for which he is so well known. The character of these essays is indicated by the following titles: 'Beginning the Study,' 'Making New Friends,' 'Wildwood Minstrels,' 'Chickadee Ways,' 'An Alpine Rosy Finch,' 'A Bird's Education,' 'Bird Flight,' 'A Bird's Foot.'

Mr. Keyser bases his writings on original observation, and they thus have an ornithological as well as a popular value.

The colored plates from mounted birds are far from satisfactory.—F. M. C.

The Ornithological Magazines

THE AUK.—The pages of the January number are monopolized by local lists and migration data of more or less general interest. Several contributors lay emphasis on the unusual coldness and backwardness of the spring migration season of 1907, together with the resultant destruction of bird life. The Rev. G. Eifrig furnishes observations made at Ottawa, Canada, Mr. N. A. Wood records the unseasonable conditions that prevailed, even in June, at Ann Arbor, Michigan, and Mr. L. H. Porter reports a number of species nesting about two weeks later than usual at Stanford, Conn. In contrast is the extremely early autumn nesting of the Barn Owl, Mr. A. T. Wayne recording a nest found in South Carolina in September.

Mr. A. C. Bent's 'Summer Birds of southwestern Saskatchewan' and Mr. E. S. Cameron's 'Birds of Custer and Dawson Counties, Montana,' are concluded in the present issue. There is also a local list by F. H. Allen of 'Summer Birds of the Green Mountain Region of southern Vermont,' and an important contribution by Mr. E. T. Seton, entitled 'Bird Records from Great Slave Lake region.' Considering the interest that attaches to the latter little-known region, it is a matter of regret that we find neither an introduction nor even an itinerary of what was evidently a very interesting trip. Among other things, Mr. Seton found the first authentic nest of Harris's Sparrow (*Zonotrichia querula*) that has been secured. In passing, we would say that abbreviations such as we find in Mr. Allen's list should be avoided. It is bad enough to be obliged to interpret with a key asterisks and other marks that have a different meaning in every local list one refers to, but to read that a species is 'common at L.; less so at W. B.' makes one wonder if the price of ink has gone up.

Mr. S. Buturlin, writing of the 'Red-spotted Bluethroat of Alaska,' considers it identical with the Siberian form which bears the name *Cyanecula suecica robusta*, and Dr. J. A. Allen, in discussing 'The Generic names *Mycteria* and *Tantalus*, decides that our Wood Ibis should be known as *Mycteria americana*.

Dr. C. W. Townsend, in writing 'On the Status of Brewster's Warbler (*Helminthopila leucobronchialis*), and Mr. J. T. Nichols, in discussing 'Lawrence's and Brewster's Warblers and Mendelian Inheritance,' revive an old problem without adducing new facts, and leave it, except in theory, just where it was twenty years or more ago.

Mr. J. H. Sage's account of the twenty-fifth meeting of the American Ornithologists' Union is instructive, and the reviews and notes that close the magazine are numerous and varied.—J. D., JR.

Bird-Lore

A Bi-monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
Published by THE MACMILLAN COMPANY

Vol. X **Published April 1, 1908** **No. 2**

SUBSCRIPTION RATES

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

Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

April 1 is the New Year of the Middle States bird students' calendar. March, it is true, has brought evidences of returning life, but it is not until the end of that month that we are thrilled by the spirit of spring. Where, before, we would hasten the wheels of time, now we would check them; stretching the succeeding two months into four.

With the year we renew our youth, living over again this exciting period of anticipation and realization. Greeting the far-travelled migrants with the joy of a first meeting or with the deeper pleasures of association. Surely, in all nature there is nothing to compare with this return of the birds!

To the field-glass student the question of identification is now a living one in every sense of the world. But he may be assured that the best substitute for the bird is a detailed description of it, written while it is in sight. Put down everything you can see, and, if you cannot identify the stranger yourself, send the description to some number of Bird-Lore's Advisory Council. If the bird is very rare or accidental, write a detailed description whether you recognize it or not. The description will be far more convincing than your bare statement that you saw this rare bird or that.

Even better than a description, but usually impossible to get, is an identifiable photograph of the bird. Few observers are as fortunate in this respect as our correspondent Mr. Brown, who reported the presence of a Rose-breasted Grosbeak in northern New Jersey in January and February. No bird of this species should have been in the United States at this season, and our request for a photograph on which to base the record was replied to, as will be seen, in the most satisfactory manner.

An Index is not generally considered interesting reading, nor is it customary to buy an Index without the matter to which it refers, but the Index to the eight volumes of the 'Bulletin of the Nuttall Ornithological Club' and seventeen volumes of 'The Auk' is an exception to the first rule, and warrants a violation of the second. It is virtually a summary of what has been done in ornithology during the most important twenty-five years in the history of that science, the 150,000 entries being arranged by authors, subjects, common and scientific bird's names and localities.

The Index might be supposed to relate only to the papers contained in the publications mentioned, but as a matter of fact it has a much wider scope. Under the editorship of Dr. J. A. Allen, the 'Bulletin' and 'Auk' have acquired the well-deserved reputation of publishing the most extended, satisfactory and authoritative reviews of ornithological literature which appear in any journal. These reviews being as carefully treated as the original contributions to the 'Bulletin' and 'The Auk,' their subject matter also becomes a part of the Index, adding greatly to its value.

The Index was prepared under the editorship of Dr. Jonathan Dwight, Jr., who is to be unreservedly congratulated on the completion of his labors and on the admirable manner in which they have been performed.

During March and April the Editor who will be in the field, asks the indulgence of correspondents.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

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

A GOOD EXAMPLE

THE honorable President of the National Association of Audubon Societies had a birthday in January—his sixty-second—more power to him! In some way the fact leaked out in spite of the very quiet celebration of the event, and some of the members of the *La Rue Holmes Nature League* who are pupils of the public schools of Chatham, Orange, and Summit, New Jersey, were moved to write their congratulations to Mr. Dutcher.

As it is impossible to print all of the letters, the two below printed are given as showing two opposite styles—the imaginative and the directly practical. As for congratulations and the best wishes for many years ahead, for our President, all filled with the work that is his greatest joy, all those who have worked with him, and know his singleness of purpose, will heartily join with the children.—M. O. W.

SUMMIT PUBLIC SCHOOL, NO. 1, SUMMIT, N. J., January 17, 1907.

Dear Mr. Dutcher:—I am a boy in the Summit Public School. I know that you cannot be thanked by the birds you have saved. I do not think I can thank you very much, but as I grow up I am going to save all the wild birds and flowers that I can. This will be the way I can thank you.

I also wish you a Happy Birthday and many of them.

Your unknown friend, OSCAR HELLQUIST.

SUMMIT, N. J., January 17, 1908.

My dear Mr. Dutcher:—You probably do not know me, but I do know you. I am a Partridge. I live in the woods in New Jersey. One of my children said this morning, "Oh, mother! What a beautiful day it is."

I said to him, "Well, I think you had better thank Mr. Dutcher for it, for if it were not for Mr. Dutcher you would probably be dead by now, killed by a naughty hunter."

He then said, "Mother, I want you to write Mr. Dutcher and thank him for telling those naughty hunters not to kill us."

So I am writing to thank you for passing laws so that "those naughty hunters" cannot kill us. Your bird friend, E. N. PARTRIDGE.

This is the letter Mrs. Partridge gave me this morning. I feel the same way toward you, myself, for protecting our pretty birds, and wish you a Happy Birthday and many of them. Yours truly, SADIE CADOO.

The Audubon Society of Connecticut is about to try a new plan for stimulating the work in schools and keeping the local secretaries in touch also.

As all the work in this state, as in many others, is done by those who work for the love of it, and who are not able to devote more than a small portion of their time to it, a new office has been created, that of School Secretary.

This position will be filled by a young lady who has not only been a teacher of teachers, and therefore knows the limitations as well as the requirements for bird work in the public schools, but has had success in speaking to children and teachers as well in the interest of the Audubon work.

There are often people who would be willing to become local secretaries and organize branch work if they knew exactly how to proceed, but it is not always easy to impart this information by either printed directions or letter. To meet these prospective workers half way, the School Secretary is prepared during the spring to visit central places in each county of the state, where a sufficient group of those interested desire to talk over the various branches of the work, and receive directions by word of mouth, with the added inspiration that comes from personal contact with one fitted to explain, as well as fired by enthusiasm.

Any one living in the state, interested either in introducing protective bird study into a school, or of forming a local circle of the Audubon Society, may address Miss Hurd, 43 West avenue, South Norwalk, Connecticut.

FLORIDA SCREECH OWL
Photographed by George Shiras, 3d.

THE SONG SPARROWS

The Sweet Singers

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 31

All birds have some sort of claim upon the attention, through knowledge of individual habits or economic worth, even when beauty of plumage or song does not hold our attention. There are birds that we should miss if they disappeared from the places where we have been accustomed to find them, but there are others that we simply could not get on without, and the Song Sparrow is one of them. Song Sparrow? It would be better to say Song Sparrows, as this shy, yet friendly, bird in its adaptation to the various conditions that enables it to live in so many parts of North America, has developed a score of species that vary more or less in size, color and markings, yet every one of these has the attributes for which we love our own little Eastern Song Sparrow (*Melospiza cinerea melodia*) so well that we forget that he is not the only one.

His Kindred

In a large family like that of the Sparrows and Finches, to which our Sweet Singer belongs, one would expect to lose sight of the streaked brownish bird with the large spot in the center of his breast, as if Nature had blended two or three of the smaller specks, in order to aid its identity and help us out. But no, the Grosbeaks and Crossbills may compel the eye as they flash in and out of the trees; the Juncos, Snowflakes and Red-polls cheer us in winter; but, when the March sun releases the frozen brooks, what voice is it that first rejoices at the sound and tells us of it?—the Song Sparrow! Up floats his cheerful ditty from the alders—"With sweet, sweet, sweet and very merry cheer!" before his cousin the Goldfinch has donned his yellow spring jacket with black sleeves and cap, or the tremolo of the gentle soft-eyed Chipping Sparrow is heard from the grass before dawn.

Season and Range

Our Song Sparrow is one of the little group of birds that may be called winter residents in the middle New England states. This does not mean that all of these Sparrows remain the entire season in their summer nesting haunts, for even the hardiest birds shift about in the winter season. The Song Sparrows we see from November to March are apt to be those that have summered considerably farther northward; thus, some of the birds that bred in the region of Quebec would be likely to winter in Massachusetts, while the Massachusetts birds would come on to Connecticut, New York, Pennsylvania, and so on. Neither will the Sparrows be found so plentiful even in the middle parts of their range as in summer, as by far the

SONG SPARROW

Order — PASSERES
Genus — MELOSPIZA
Family — FRINGILLIDÆ
Subspecies — CINEREA MELODIA

greater number will go to the southerly limit, lured by mild weather and the more generous food supply.

The range of our Eastern Song Sparrow is through the whole of eastern North America westward to the plains. It nests from Virginia and northern Illinois up to Manitoba and Quebec, and winters from Massachusetts and southern Illinois down to the Gulf of Mexico. When you realize what different conditions obtain in the various parts of this great range, you will at once see how very adaptable this Sweet Singer is to all sorts of climate and food conditions. For though we may not think them plentiful birds, from their rather elusive ways, habit of spending much time in river brush, and never gathering in great autumnal flocks, like some of their kin, yet they are one of the few species that have everywhere increased rather than diminished.

The difference in the time when nesting is begun by different species of birds is a most fascinating study. By the middle of March the winter Song Sparrows will have taken wing, and from that time until well into April the summer residents will come along, not in flocks, but one or two at a time, appearing near the old nesting places. April is probably the best time to hear the most voluble and unguarded song of the Sweet Singers, for, as they do not begin to nest until early May, there is no necessity of secrecy of movement or choice of singing perch.

The Nest

It is a fact to be noted, that the hardiest birds, or those first to arrive, are by no means those that nest first. The large birds, Owls, Hawks, etc., take the lead of the smaller birds; the Bluebird, White-breasted Nuthatch and Robin only nest in April. The Song Sparrow and Phœbe (who returns in March) wait until May; and the Goldfinch and Cedar Birds, both sturdy winter residents, wait until almost the end of June.

The Song Sparrow conceals its nest with the greatest care, either in the mazes of a low bush, in the division of the branches of a shrub just above ground, where bits of bark and dry leaves have colletced, or on the ground itself between grass tussocks that not only conceal the nest, but are sometimes woven in with the rootlets, plant fibers and shredded bark of which the nest is formed. Like the Chipping Sparrow or Hair Bird, it sometimes uses horsehair for an inner lining, and the four or five bluish white eggs, profusely marked with reddish brown, are always softly bedded by fine grasses.

The Sweet Singer does not always use the best of judgment in choosing the structure that is to hold its nest, though this I have found applies strictly to the second nest built in middle or late June, when, being attracted to the flower garden by the bird-bath in the corner, a pair of Sparrows built a nest among the flower-heads of a bunch of feverfews, that faded and left the nest exposed at the very time that the youngsters needed the most protection.

Much as they resent the company of humans near their homes, they made no objection to the strawberry basket that was secured under their nest, to keep it from tipping sidewise and dumping its load on the bare earth; neither did they

take fright at an old palm-leaf fan that was turned into an umbrella to supply the shelter that the fading flowers had promised.

If you wish to have Song Sparrows about the house, remember that there is no greater lure for them than water. It may be that constant bathing is one of the secrets of their good health, for certain it is that they are free from many of the epidemics that destroy so many birds. I have seen the pair of birds belonging to the fan-covered nest bathing when the June twilight was so deep that I could not distinguish their markings, and identified them by the sharp alarm note of "dick, dick!" and the fact that while they were splashing in the bath the nest, in which the young were then well-feathered, was left unguarded for the moment; but as soon as my motions attracted their suspicions they appeared close by and tried to scold me away and preen their soaking feathers at the same time.

Its Food

All through the long nesting season the Sweet Singer is an an insect eater, both in the feeding of its young and largely in its own diet, while for the rest of the year it may be counted in the front ranks of the Weed Warriors, and at all times it may be included among the birds who do no harm to the fruits of farm and garden,—such berries as it takes usually being of small wild varieties.

The chief dangers that threaten this wholly lovable bird are from egg-hunting boys, the domestic "relapsed" cats, and the sort of civilization that not only cuts down woodlands for the evolution of the land to building lots, but fairly scarifies the field edges and roadsides, in a foolish craze for cleaning up, removing the wild hedges that mean so much to one's inner sense of beauty and the pleasure of the eye.

I have spoken of the adaptability to the many climates of its range of one species, the Eastern Song Sparrow. The changes wrought by the necessities that have developed many species in more widely separated parts of our country are very interesting and worthy to be remembered. Our Eastern bird is cloaked in reddish brown and with black streaks; tail with a decided reddish tinge, under parts streaked with black, edged with rusty brown, these streaks being so close in the middle of the breast as to form a large spot. Our bird is less than 6½ inches long and has a good-sized bill. It has an unmistakable song, and yet, though its notes vary indefinitely even in a single bird, its quality is typical of the whole tribe.

The size and plumage of the other Song Sparrows nearly a score in number, vary with the climate and rainfall of the locality in which they are found,* and it is interesting to follow these variations on the map.

Our Sweet Singer lives altogether east of the Rockies. At the extreme northerly portion of Alaska is found the largest bird of the tribe, the Aleutian Song Sparrow.

*See Climatic Variation in Color and Size of Song Sparrows, F. M. Chapman, in BIRD-LORE, Vol. VI, p. 164.

Coming down to the coast of British Columbia and southern Alaska, where the rainfall is 125 inches a year, we find the Sooty Song Sparrow, the darkest of all in color.

When we reach the arid regions of Nevada and Arizona, with a rainfall of only six inches, we find the palest of all, the Desert Song Sparrow; and, finally, on the Mexican Central America border lives the Mexican Song Sparrow, the least of all. So, whether we live north, south, east or west, we shall have this sweet singer with us, who will surely reveal himself; and if we do not, at first, recognize his plumage, will sing his way straight into our hearts.

DISTRIBUTION OF SONG SPARROWS

Photographed from an exhibit in the American Museum of Natural History. Published by permission from the American Museum Journal.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

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

WE NEED

More members in the Association, in order to increase our influence and our working fund. The question has often been asked by members, "What can I do to help?" The reply is always, "Get some friend to join the Association." If every one of our thousand members will do this, it will so enlarge and strengthen the Society that it will not be necessary in the future to reluctantly refuse to consider propositions for additional lines of bird-protection work. With the financial support of two or three thousand additional members, the Association will be in such a position that it can commence at once to carry out several important plans that we are now compelled to ignore.

We wish to stop Robin-shooting in the South during the winter and spring.

We wish to stop Dove-shooting in all of the states where it is now legal to kill these valuable birds.

We wish to remove the small shore birds from the list of game birds.

We wish to agitate for a close season of five or ten years on the Wood Duck and Bartramian Sandpiper.

We wish to prepare the way in all parts of the country for a uniform law, stopping shooting of every kind of game birds from January first to a reasonable open season in the fall of the year.

We wish to increase the educational work through the public press.

Above all, we wish to increase our output of educational literature to the school children of the continent.

The importance of all of the above suggestions must be manifest to every thinking mind, and we commend them to the thoughtful consideration of the members of this Association especially, and to the public generally.—W. D.

A New Bird Reservation

There should be no limitation to the activities of the members of this Association in seeking new tracts that can be set aside as bird refuges. All islands on the coast or in any of the interior lakes, especially in the great West, should be investigated, to ascertain whether water fowl or other birds nest there in any numbers. If such is the case, a report should be sent at once to the headquarters of the Association in New York City. This is an important work that can be carried on by any member, and, in view of the fact that the nesting localities of ducks and shore birds in all parts of the country are being rapidly restricted, it is important that refuges should be made where they can still breed, in order to prevent extermination. Islands or marshes that cannot be used for agriculture or homesteading will make admirable bird-breeding reserves. A report of the character of the place, and the approximate number and kinds of birds breeding there, is all that is necessary in the first report. On its receipt, inquiry will at once be made in Washington as to whether the property still belongs to the Federal Government, and, if such proves to be the case, an application will be made to have it set aside as a reservation.

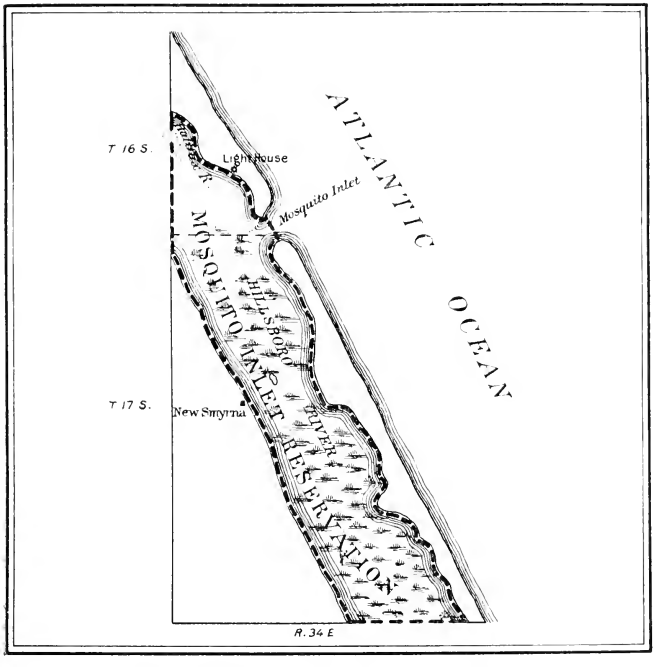
One of our interested members, residing in Illinois, but who spends his winters south, discovered just such a tract

MOSQUITO INLET RESERVATION

For Protection of Native Birds

FLORIDA

Embracing all mangrove and salt grass islets, shoals, sand bars and sand spits in Townships 16 and 17 South, Range 34 East, Florida, segregated by broken lines and designated "Mosquito Inlet Reservation."



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
Richard A. Ballinger, Commissioner.

[DIAGRAM ATTACHED TO AND MADE A PART OF THE EXECUTIVE ORDER DATED FEBRUARY 24, 1908.]

last fall in Florida, which he reported, and we now have the pleasure of announcing that by Executive order the tract was set aside, and is now known as "Mosquito Inlet Reservation."—W. D.

Executive Order

It is hereby ordered that all small mangrove and salt grass islets, shoals, sand bars and sand spits, situated in Mosquito Inlet, and in and near the mouths of the Halifax and Hillsboro rivers, in townships sixteen and seventeen south, range thirty-four east of the Tallahassee meridian, Florida, and located within the area segregated by a broken line, and shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds. This reservation to be known as the Mosquito Inlet Reservation.

THEODORE ROOSEVELT.

The White House,
February 24, 1908.

An Ideal Game Commission

A state may have excellent game laws, but they are never self-enforcing. Alabama, however, is fortunate in having a commissioner who is especially active, and the result is that the deputy wardens have a like activity. It could not be otherwise when they periodically receive letters like the following:

"Your attention is directed to the fact that many will attempt to hunt this month who have not secured a license for the year 1908. This violation of the license law, or any other, will not be tolerated by this department. The true sportsmen of the state have gladly bought hunter's licenses, and all others who hunt must do likewise.

"It will be well to inform the people of your county that this requirement will be rigidly enforced. You can best give publicity to this fact through the medium of the press, and it will be largely in the interest of game preservation for you to converse freely with the editors of the papers in your county, that they may publish all the news relating to convictions and the enforcement of the law. Examine, and have your deputy ask to see the license of every one going hunting, found hunting, or coming from hunting. If a hunter is required by law to have a license and has not procured the same, arrest should be made on the spot and prosecution instigated. It is unlawful for any person to carry game on a train without a hunter's license (see Section 42). Remember that all non-game birds are protected except those especially exempted in Section 5 of the game law. The time is at hand when Robins will be passing through Alabama, and those who kill these harmless songsters should be prosecuted. Enforce the law to the very letter, for only by this course can the conduct of a public officer be endorsed and upheld by the people he serves. Have your next grand jury investigate fully all infractions of the game and fish laws."

The instructions to the wardens to give particular attention to the protection of the Robin is especially pleasing to this Association, in view of the fact that in many other parts of the South it is reported that Robins are being killed by the thousands.

Stories of this character are not always absolutely reliable, but so much information has lately been received on this subject that it is undoubtedly true that Robins are being slaughtered in large numbers. A valued correspondent in Florida writes: Robin-shooting is mostly done by negroes, boys and uneducated persons, but also by those who should be on a higher plane. One woman saved a barrel of Robins' feathers last winter." Education is needed in that section, but the finances of this Association will not at the present time permit of any special work along this line. Is there not some person in the North, where the Robin is one of the most cherished of the familiar birds, who will establish a special fund to be used in a campaign of education in

the winter home of Robins, that they may receive there the same care that is given them in other parts of the country? —W.D.

Alien License Law

Apropos of the discussion now going on in several states in regard to license laws, it may be noted that, as might be expected, the strongest reason for a high alien license is furnished by the actions of aliens themselves. The most important feature of the license is not revenue (though that has its importance and is equitable), but the fact that it restricts many aliens (largely Italians) from hunting at all, and enables wardens to more easily investigate the hunting done by those who continue to go gunning.

Coming from a country devoid of appreciation of the economic value of birds, and where the smallest of feathered creatures are considered legitimate prey and food for man, Italians are strongly inclined to shoot the song birds of this country, as the most easily secured dainty to add to a none too varied larder. Despite the plea that has been made for them by some of the newspapers, viciousness, quite as much as ignorance of the law, is shown by these aliens, as evinced by frequent assaults on wardens who are enforcing the laws. The case of game warden, Daniel Edwards, of Beacon Falls, Conn., whose face was filled with shot by an Italian violator of the game law, is still fresh in mind. This is, perhaps, the most atrocious case, but the news items coming into the National Association office contain very many accounts of lesser assaults and threatened assaults on wardens.

Some months since, one of our special wardens, an enthusiastic bird student and earnest protectionist, was trying to check some of the violations he had frequently witnessed on his outing trips near New York. On September 14, last, he "found an Italian, at Rockaway Beach, about one and one-half miles from the railroad station, using two wounded Semipalmated Sandpipers as decoys. I told him that he was violating the law, but he pretended not to understand me. I picked up one of the struggling birds, when he said, in fairly good English, 'let go, or I shoot!' I walked toward him holding the bird behind me, intending to explain the case to him. We were then about ten or fifteen yards apart. He discharged one barrel of his gun, intending, I believe, to scare me. Although most of the shot went wild, four pellets lodged in my right leg, below the knee. Seeing that he had hit me, he turned and ran, with his bag, in the direction of Jamaica Bay, where there are numerous small houses. I tried to follow him, but my leg inconvenienced me and I was soon out-distanced. Returning to the beach, I killed the remaining bird, having killed the other while talking to the Italian. I then removed two of the pellets, being unable to dislodge the other two, as the calf of my leg was already inflamed. I hurried home and dressed my leg, removing the other two shot next morning. . . . . I have been to Rockaway twice since then but I have not encountered my assailant again."

An alien license, high enough to be almost prohibitive, in all states where aliens are found in numbers (which means almost every state in the Union), is one of the most important measures of game legislation, not only in the interests of the preservation of game, but also for the better safe-guarding of life and limb of the wardens.—B. S. Bowdish.

The Plume Trade*

The official report of the feather sale of August 2d states that there was a small quantity of "Osprey" feathers offered, and only a small attendance of buyers. The quantity catalogued was 315 packages. The Birds-of-Paradise offered numbered 3,831, besides seven packages; all sold at a decline in prices. Albatross wing quills fetched ½ d. to 3½ d. each. Bustard wing quills 4 d. to 4¼ d. a bundle, the provision of quills being very large. Emu skins were 10 s. each, and Crested Pi-

geons 6 s. each. A peculiarly deplorable feature of the sale was the offer of four packages of Lyre-bird tails; this beautiful bird is found only in Australia, and is being driven deeper and deeper into the bush in ever-decreasing numbers, on account of the persecution it meets with in the interests of the plume-trade.

Birds-of-Paradise continues to be a leading feature of the plume sales in London, and will apparently continue to be so until the last of these exquisite birds has found its sepulchre in a Houndsditch warehouse, unless measures are taken for its absolute protection throughout New Guinea. At the sale on October 15th, over 7,000 were offered, and nearly all "sold with good competition;" for that of December 17th, 4,667 were catalogued. The packages of "Osprey" feathers numbered 548 and 200 respectively, a large proportion being advertised as "East Indian." Other features of the two sales were 100 Lyre-bird tails from Australia, 96 Impeyan Pheasants (presumably from India, whence their exportation is illegal), and a large number of Coronata Pigeons and of Albatross quill feathers.

Plume-Hunters in the Soudan*

The French government has, it is announced, decided to supply funds for a thorough test of the question whether the Ostrich can be successfully domesticated in the French Soudan. Anxiety on the subject has arisen from the fact that the natives of Upper Senegal and Niger are, at the instigation of the plume-hunters, rapidly exterminating both Ostrich and Heron. Dr. Decorse, who has been investigating the matter for the Government, accordingly recommends an effort to farm the former bird, as is done so commonly in South Africa, by the establishment of large ranches where the birds may be kept as much as possible in the natural state. With regard to the Herons, only one course is possible if the birds are to be preserved. The hunting of them is to be entirely prohibited for two years, and reservations are to be set apart in which the natives are never to be permitted to hunt the species.

* From "Bird Notes and News," organ of the Royal Society for the Protection of Birds, London, England. Autumn and winter numbers, 1907.

Attracting Birds

The writer is preparing for the National Association of Audubon Societies a monograph on "Methods of Attracting Birds Around Our Homes." The purpose is to make this a comprehensive summary of what has been done by bird students along this line, and to collect in one pamphlet the results of these experiences. This is intended especially to be helpful to teachers and children. To accomplish the desired end, the writer will need the coöperation of the readers of BIRD-LORE, and, accordingly, he would make the request that those who have taken means to attract birds around their homes would kindly send him a brief summary of their experiences. Due credit will be given for all contributions. The following outline suggests some of the topics on which information is desired:

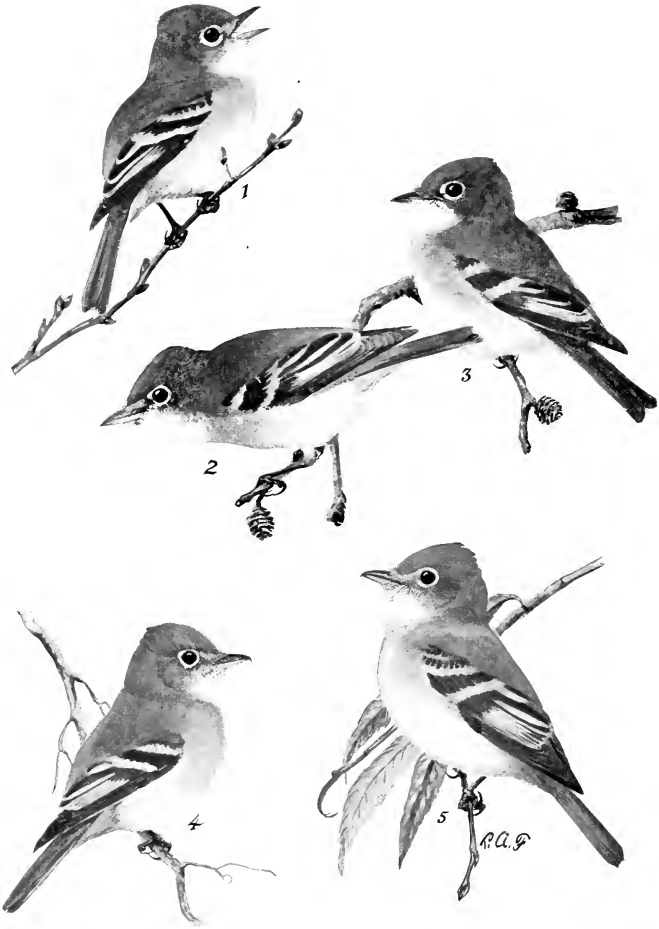
1. Feeding Winter Birds.*—Kinds of feed tried; kinds preferred by birds. Description of feeding trough; its location. List of birds that feed; birds tamed to feed from hand. Experiences with English Sparrows; devices tried to prevent them from feeding.

2. Providing Nesting Houses.*—Most successful kinds of houses; best location, and height from ground. Kind of birds using houses. Special adaptations to particular kinds of birds. Open boxes and shelves for Robin, Phœbe, Swallow, etc. Experiences with English Sparrows; devices to keep them from using houses.

3. Drinking and Bathing Fountains.*—Method of construction; size; location. List of birds using it. How protected from cats.

—GILBERT H. TRAFTON, *Passaic, N. J.*

* Photographs desired in addition to those which have already appeared in BIRD-LORE.



1. Least Flycatcher. 2. Alder Flycatcher, Fall. 3. Alder Flycatcher, Spring.
4. Yellow-bellied Flycatcher. 5. Green-crested Flycatcher.

Bird-Lore

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

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. X | MAY—JUNE, 1908 | No. 3

A Family of Great Owls

By WILLIAM COGSWELL CLARKE

THE *Hoo! hoo! hoo!* of the Barred Owl, issuing from the depths of the wood on a cloudy summer's day, or at eventime, usually attracts attention and passing comment. To some it is a mournful sound, while to those who have a taste for the fields, it is most pleasing and effective in giving a touch of the wild woods to the surroundings. For the sake of those who have regard for the big bird, I venture to publish the following short sketch.

One Sunday, late in April, 1902, we were driving through a well-grown patch of hard wood in Schraalenburgh, New Jersey, and, as we passed along, a companion had the good luck to spy a fluffy, grayish white object at the foot of a large white oak. This tree stood among others only twenty feet back from the roadside. Hastening to the spot, we found a partially grown Barred Owl, which had fallen out of its nest, either through some accident or because the nest was naturally insecure. Judging from the mentality later displayed by this baby owl, I rather hesitate to criticize the wisdom of its parents in selecting such a location, and in building only a mere suggestion of a nest in an open fork made by three limbs projecting from the main trunk of the tree. The little one, not at all hurt by the fall, was at once adopted and taken home.

Because of many past experiences with several varieties of young Hawks, I was most agreeably surprised at the extreme gentleness and friendliness displayed from the first by this little Owl. He was still in his downy coat, and, as yet, too young to stand on his legs. We fed him on fresh meat, supplemented, when possible, by mice and deceased young chickens and ducks. The importance of feeding growing Hawks, Crows, and Owls on these little animals is well known. If these carnivorous birds do not receive small, readily digested bones, their supply of lime salts will be so meager that rickets will result; that is, the developing bones in the young bird will be structurally so weak that they will either break or bend and become deformed, as the increasing weight of the growing bird is thrown upon them. I remember well a young Red-shouldered Hawk

that came to grief from a too liberal supply of butcher's meat without sufficient bone to provide lime.

Our Owl thrived from the first, and, until he was old enough to go about out-of-doors, he slept at night in a large basket in the house. Since he insisted on being fed at daybreak, I kept him near my bed, and, when he woke me, calling, I would satisfy him. After that he would promptly go to sleep again. Most of his days were spent taking short naps, fixing his feathers, stretching his wings, and trying to fly.

As he grew, we all obtained considerable amusement from watching his various antics. One interesting performance was to place him on the back of a gentle horse quietly eating grass on the lawn. The Owl would look about and feel very much at home, except that every time "Winnie" turned to drive the flies away, he would scold her head with great energy, as if it were a strange animal attacking the one on which he was perched.

He also furnished no end of entertainment for the hens, who used to form an admiring circle and stare at him. I am sure that what the hens said would have been interesting if we could have known it. Judging from his actions, the amusement obtained on the part of the hens was reciprocated. He would look from hen to hen, continually bobbing his head up and down, always moving his neck from side to side. His head thus moved in a perpendicular line each time, parallel to the line just described. This motion was employed whenever he wished to inspect critically any object at a distance.

Our Owl, apparently, could see quite well even in bright sunshine; and, when sitting quietly on the piazza, he would follow, with the motion of his head, some one who might be passing along the road, which was about one hundred yards distant.

As he grew and learned to fly, he went at large while people were about. At other times we shut him up, because we feared that a stranger might shoot him. He certainly surprised me by his friendliness, gentleness and intelligence, although, it must be confessed, that as regards the latter quality, he never equaled any of my Crows, Bluejays, or Purple Grackles.

Our Owl, to my knowledge, never caught any birds, or obtained food for himself in any way, but depended exclusively for his living upon us.

He reached his full growth in about three months, and, from that time on, simply perfected himself in the art of flying. While he lived with us, he made use of only two sounds: one, resembling a hissing noise, he employed when frightened or when he wished to protest; the other, a high-pitched, short whistle, rapidly repeated, he used when he was pleased or hungry, or when he wished to attract attention.

In the fall, realizing that he might be shot if he were free about the grounds, and yet hating to shut him up, we decided to put him back in the woods where his family had lived. So, early in September, after giving him a square meal, we released him near the place where he was hatched. He flew to a tree and

began to bob his head up and down, becoming at once interested in his new surroundings, while we drove rapidly away. We have always hoped that he met with a friendly Owl who gave him all the necessary lessons in woodcraft.

The following spring, early in April, I went to the same spot. Knocking, from custom, on the trunk of a large, partially dead maple nearby, to see who might be at home, at once a Barred Owl flew out from the top.

YOUNG BARRED OWL
Photographed by William Cogswell Clarke

This tree was situated ideally for its purpose, on the edge of a dense swamp, surrounded by a growth of small maples and other hard wood. Climbing to the top, I found an extensive hollow, at the bottom of which were two newly hatched Owls and one egg. The old Owl returned during my investigation and watched me with considerable interest. I went back the following week and removed the unhatched egg, which promptly exploded in my pocket, proving to my satisfaction that it would not have hatched. After that we visited the nest each week until the young birds flew away.

The remnants of food found in the nest consisted of many feathers and one large sucker. Among the feathers which could be identified with certainty, there were, I am sorry to say, those of Robins and Flickers. We could not find the remains of any quadruped in the nest, and, because of the water which partly surrounded the foot of the tree, there was no other evidence preserved as to the nature of the Owls' food.

On our visits to the nest, we always saw one old bird, and, occasionally, both. They each kept a respectful distance from us and never made any effort to defend their home. Because of a gang of Crows, who had one or two nests nearby, the Owls were very chary of showing themselves. On two or three of our visits, they were seen, and what a hazing they received from their black neighbors! This certainly is one good reason that Owls have for keeping so shady in the daytime.

The third spring following our introduction, the Owls were back at the

same stand in the broken maple. I well remember with what acute interest we ranged ourselves about the tree for a good view of our friends, if by chance they might be at home. True enough, at the first knock, out the old lady came, with little, if any, hurry, just as if only a week had passed since we last saw her, while really a year had gone by since we had shooed her away from her crop of owlets. This year, the third since we had found the Owl family, two eggs were laid and two Owls were successfully raised.

The fourth year, back we went to the same spot, but the Owls had not returned; nor, much to my regret, have they done so since that time.

The question might be asked, why do we speak of these Owls as if they were one family, returning year after year? In reply, it must be admitted that this fact can not be proven, though it seems reasonable to suppose that it was the same family. On the other hand, it can not be disproven. Doubtless, most observers have known particular spots where, in the proper season, the *hoo! hoo!* of the Barred Owl is heard year after year; and, even if the nesting-site is not known, the locality is looked upon as the home of a single pair of birds.

Our own Owl family has either moved away or else has fallen victim to the many people always willing to "try a shot," as they say, at almost any bird, but, particularly, at one as large as a Barred Owl. The old maple, which had stood so many years, and, apparently, had furnished shelter to many birds and animals long before I found it, is now gone; succumbing, as many another home tree has done, to the so-called improvements, commended by so many and, unfortunately, regretted by only a few.

IMMATURE NIGHT HERON
Flashlight by Henry R. Carey, Portsmouth, N. H.

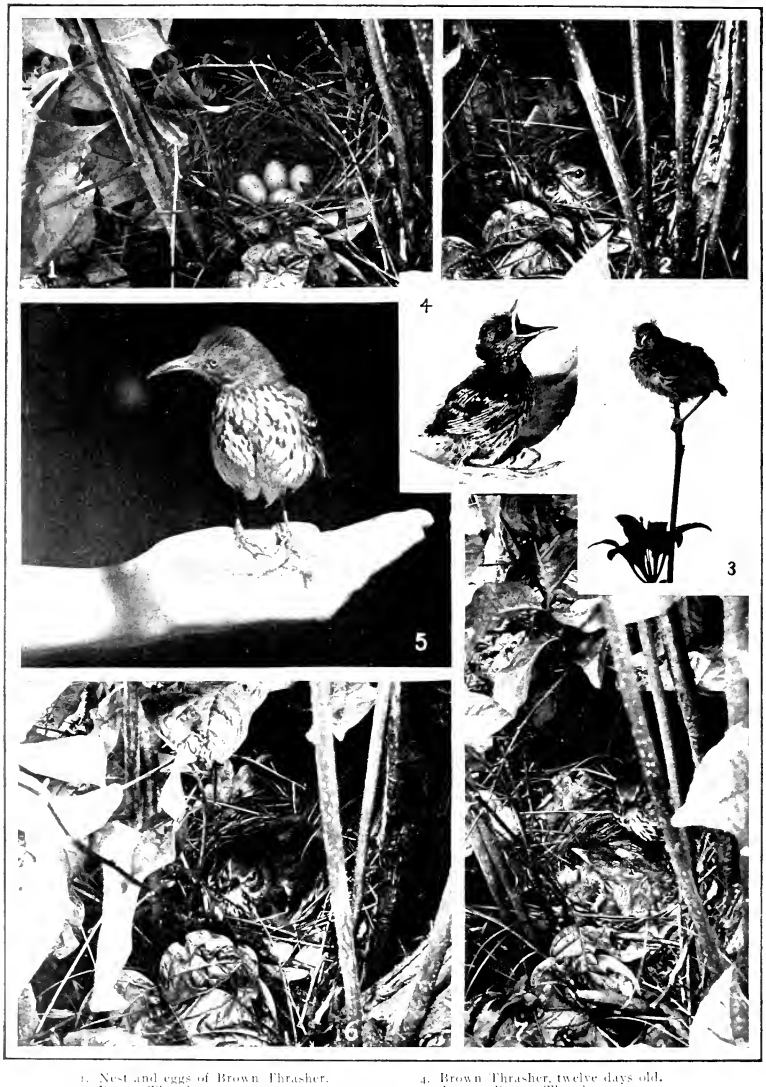
The Brown Thrasher

By CHARLES E. HEIL, Needham, Mass.

THE Brown Thrasher is a common, every-day bird, from May to September, in West Roxbury, Roslindale, and Needham, Massachusetts. It arrives in this vicinity about the first week in May; a few may sometimes be seen during the last week of April, but so far as I have observed, this is unusual. They generally arrive in pairs, and, when first seen among the undergrowth of pasture and roadside, are very shy and suspicious, and show no sign of that bravery which some of them later display in defense of their young. As they flit across the road, from thicket to thicket, at this time of the year, they frequently make me think of a reddish wind-blown leaf.

Some of the birds begin housekeeping a few days after their arrival, as I have found a bird sitting on four eggs on May 10. Nests are composed of coarse twigs, bark and dead leaves, and, at times, dry grass is used; the lining is generally fine roots; rarely, it is a combination of fine roots and fine twigs, and one nest I examined was lined with bark and dry grass. As a rule, the structures are well made, but some of the ground nests, when taken up, do not retain their shape. The favorite nesting localities are neglected, overgrown pastures and the borders of woods. Most of the nests I have found were placed on the ground, but they are frequently built in bushes and tangles of vines, and, on rare occasions, a nest may be found in a tree. Nests in bushes are not difficult to find, but those placed on the ground are very well concealed. A good way to find the latter is to pick out a likely looking pasture, beat over it, and, in this way, flush the bird, which is a close sitter, from the nest.

The eggs are whitish, with profuse and even specks of reddish brown; but, when seen from a distance, strongly resemble ovoids of some plain brown wood. I have never found more than five eggs in a nest; four are usually laid and deposition occurs daily. Incubation usually commences before the last egg is laid, and in each of three instances under my observation, lasted about thirteen days. In localities where enemies abound, the young leave the nest at the end of ten or twelve days, and conceal themselves in the underbrush until able to fly. At this period, they are much like the parents in color, but do not have the yellow iris, this coming about the time of the August molt. Usually, two broods are reared during the season, which, beginning in early May, continues until well into July. While the young are in the nest, the parents generally are very brave, flying at and, sometimes, hitting the intruder, and they look fierce enough with their staring yellow eyes and sharp curving bills, to frighten away many small boys who would, otherwise, rob their homes. Nuttall says: "One of the parents, usually the male, seems almost continually occupied in guarding against any dangerous intruder." The appearance of the human intruder is heralded by the whistled *Wheéu*, which is followed by the loud *kissing* note if the person continues to advance. If an enemy gets close to some nests, the owners seem



1. Nest and eggs of Brown Thrasher.
2. Brown Thrasher on nest.
3. Brown Thrasher, nine days old.
4. Brown Thrasher, twelve days old.
5. A tame Brown Thrasher.
6. Brown Thrasher on nest.
7. Young (seven days old) and parent

Photographed by Christina J. Heil

to lose all timidity, and, uttering their peculiar, hoarse cry, which sounds to me more like the sharp tearing of a piece of stout cloth than anything else, fly fiercely at him. I have had the skin of my hand broken by their sharp bills when examining nests containing young. This attack is conducted with such pathetic desperation and is so touching that it makes me feel heartily ashamed of myself (when I am its object) and I oftimes beat a hasty retreat.

Much has been said and written in praise of the Brown Thrasher's song. Perched in some tree—tall or short, it matters not to him so long as he can stand among its topmost branches—he pours forth his medley. I must, to be entirely candid, confess that I do not like it. To my ear it is a confused and queer mixture of rapidly repeated notes. As Mr. Torrey says: "High notes and low notes, smooth notes and rough notes, all jumbled together in the craziest fashion." Nevertheless, it has the quality of sincerity, and I go away feeling that the singer has earnestly tried to do his best.

The food of this species consists of caterpillars, beetles, grasshoppers, and fruit of various kinds. In late August I have watched them among the rum-cherry trees, gulping down cherries—pulp and stone together.

Cats and blacksnakes undoubtedly destroy some of the young in my neighborhood. On one of my rambles I found a nest with the bird sitting on three eggs, at the foot of a white birch sapling in a pasture near some houses. Two days later the young came from the shells; the next day I found an empty nest and scattered about it were the long tail-feathers and many small brown ones of a Thrasher. I suspect the author of this tragedy was a cat which sometimes prowled about the pasture. This species begins to leave during September. By the end of October, all Thrashers (with the possible exception of some abnormal fellow) have departed for the South.

ROSE-BREASTED GROSBEAK

This bird was benumbed by the cold and went to sleep while I was focusing it. To get this picture I had to touch the bird to wake him up. After a sun-bath of half an hour he flew up into a near-by tree and became quite lively. Golden's Bridge, N. Y., May 12, 1907. By Warren C. Tudbury.

A Bittern Study

By AGNES M. LEARNED, Boston, Mass.

THE first time that we saw the Bittern at Pleasant Valley Farm was late in the summer of 1906—too late to study his habits—so we resolved that we would see him as early in the spring as possible. We began to watch for him so early in the season that it seemed as though he would never come; but at last we were rewarded, when, on May 8, about 5 o'clock in the afternoon, he made his appearance in the cranberry bog quite near the house. We did not see him fly down, but heard the *booming*. The whole family had been listening for him, and at the first sound, the news went round that the Bittern had come! The younger members of the family hurried out, down to the edge of the bog, where we could see him very plainly. At our approach he became immovable, and we found that his ability to keep perfectly still was much greater than ours. As we were very anxious to see him at short range when he was booming, we decided that all but one of the party should leave the vantage point behind a big apple tree (which ever after we called the Bittern tree), and thus test the Bittern's ability to count!

The experiment was a success, and it was only a few moments before he began to grow less rigid (he had been standing all this time with his long neck thrust straight in the air, and, at a distance, looked more like a stick than he did like a bird); then, growing more confident, walked about a little, then standing perfectly still, he gazed at the water and seemed to meditate.

All at once, the feathers on his neck quivered, he looked as though he was taking one or two long, gulping breaths, his bill snapped loudly and quickly, and, with contortions which seemed ludicrous, he said *pump-a-lunk*, *pump-a-lunk*, *pump-a-lunk*. This was the beginning of our acquaintance with the Bittern, and we never tired of his company.

For many days he arrived about five in the afternoon; for quite a while we wondered how long he stayed, then a wakeful member of the family heard him in the wee sma' hours, and, later, the early riser of the family saw him in the brook that drains the bog. As the season advanced, he boomed with great vigor and many times at each performance; for instance, one evening he boomed seven times in succession; he also became less shy, and one afternoon we had the pleasure of seeing him mount a tussock of grass and perform. Sometimes his booming would sound like an old wooden pump, and sometimes like the driving of a stake. After the Whippoorwill arrived, the night was vocal with their alternate performances, and when, on rare occasions, they performed together, the effect was weird beyond description.

Although the Bittern came regularly about five o'clock every afternoon, we neither saw nor heard him come or go, for there was no "hurrying sound of wings" to announce his arrival or departure, and it was a marvel to us that so large a bird could fly so silently. One afternoon two of us decided that, if possi-

ble, we would see him alight in the bog; so about half an hour before we thought he would arrive from the lower meadow (where we could hear him, but not see him), we took our places under the Bittern tree and waited nearly an hour for him; then, duties calling us, we left, only to hear, before we were hardly up to the house, the familiar *pump-a-lunk* from the bog.

We had seen only one Bittern, and, as in our bird books there was no difference in the description of the male and female, we could not tell which it was, but supposed it was the male.

The cranberry bog lies northwest of the house, and southeast of the house there is a pretty little pond, made by damming up the trout brook that crosses the farm. At one point this brook runs within one hundred feet of the house, and here we saw, one perfect Sunday morning in June (the 9th), the Bittern; but not as we had seen him before, for on his back he wore two clusters of beautiful white plumes that fluttered softly in the morning air.

How proud he was! He stood perfectly still; he waded in the brook; he walked slowly on its bank, all the time as conscious of his adorning as any beau, and perfectly willing that the entire family should admire him—from the piazza. He posed under the old apple tree beside the brook; the combination of grasses, gnarled tree trunk and Bittern making a veritable Japanese scene.

We were surprised and delighted, and went at once to our bird books to see what the beautiful white feathers were called; but, alas, not a book mentioned them! and later research at the library failed to reveal any information. Only one spoke of them and said that Bitterns did *not* wear nuptial plumes. After much thought, we decided that the Bittern must be like its relatives, the Egrets, and wear nuptial plumes. We thought that the white feathers, or plumes, grew from the region of the scapulars; there were several on each side, they were not over five inches long and not less than three, and were soft and downy, and with the aid of a glass we could see them flutter in the light wind.

Many questions filled our minds: Had this beautiful creature just arrived? Would it stay awhile? Where was the solitary bird that had been with us so long? Was it still here, or had it shyly hidden itself away?

At least two of these questions were answered, for the next morning we saw the Bittern of the Decoration stalking majestically through the cranberry bog, and a few days later flushed from the side of the pond a Bittern with no white plumes, so we felt sure there must be two.

After this we neither heard nor saw the Bitterns for a long time, but we hoped they nested in the cranberry bog. Our hopes were realized, for when the grass around the bog was cut, the 30th of July, the men saw two small Bitterns in the grass. One of them, sad to relate, was caught by the mowing machine and killed before the driver knew of its presence, and, in order to save the life of the other, who courted a like fate, he caught it, tied its legs and laid it in a safe place, and, later, brought them both to the house. A Bittern on the lawn! In our wildest dreams we had never thought of that!

He was a most ungainly looking creature as he squatted on the lawn, wings outspread and bill snapping, ready to defend himself against any foe. His feathers were all quite buffy and were fluffy about the shoulders; his legs and feet were bright greenish yellow or yellowish green, and very, very clean. His bill was yellow and he had a yellow ring about the eye.

We meant to take him back to his home, but he escaped and went down to the brook. The next day we saw the old bird fly up toward the pond and we supposed she had found him.

One day shortly after the capture of the young Bittern, we went out to the pond to see the water-lilies, and tried to get some that grew near the bank (the pond was so low that there was a muddy margin of a foot or more all around it). Stooping to get a perfect flower, we were startled by a peculiar sound—*k-r-r-r-r-r*. We could not imagine what it could be; nothing was to be seen, so we moved along the side cautiously, when *k-r-r-r-r-r* came the sound again. This time we decided that it came from a clump of water-grasses; so, very cautiously, we advanced and, for the third time, heard *k-r-r-r-r-r*, and looking over the clump saw the young Bittern squatting on the mud, wings outspread, on the alert for the enemy.

The second time we saw one of the old birds fly up the brook to the pond, we hurried along to get another glimpse; but not a bird could we see, so turned away reluctantly, giving one last backward look. That moment of turning away was the old bird's opportunity (although how she knew we were walking away will always be a mystery), for, as we gave that last backward look, we saw her make a long arm of her bill and place some dainty tidbit far down the throat of her offspring, looking for all the word, as she did so, like Mrs. Squeers administering sulphur and molasses to the little boys.

The charm of the Bittern drew us often to the pond, and one day when there was no wind to ruffle the water and no clouds to dull the reflections, we seated ourselves to admire the natural beauties of the place. The trees, shrubs and rocks on the opposite side of the pond were perfectly reflected in its mirror-like surface, and we were lost in admiration of the scene, and almost forgot the Bittern, when suddenly we realized that she was part of the landscape. How daintily she moved, picking her way in and out between the rocks, at times so perfectly reflected in the water that we could see the markings on the feathers. She was in no haste and would lift her foot out of the water in such a way that there was not a ripple made. When she reached a point exactly opposite us, she seemed to realize that she was being watched and flew slowly back to the head of the pond, which, with its muddy margin, made an excellent feeding ground, and it was here that we flushed the Bittern for the last time that season.

AMERICAN BITTERN ON NEST
Photographed by R. M. Strong.

A Bittern Photograph

(See preceding page)

I SEND you by this mail a print from a negative made by myself at Nippersink Lake, Ill., on June 8, 1907, of an American Bittern on its nest. While pushing a boat through some marsh vegetation in this lake, I discovered the bird as seen in the picture. I was accompanied by students in bird-study from the University of Chicago. We approached the nest carefully, taking pictures at two or three intervals and constantly expecting the bird to fly. Finally, we drew our boats up within a few feet of the nest.

I had, unfortunately, used my last plate, but was able to borrow a camera from a student. The camera being of strange model, several minutes were required in getting ready for a picture. This one was finally obtained, to the great relief of the students and myself. Still the Bittern sat motionless on its nest, except for a very slight shifting of the head in following my movements. At length, in order to see the eggs, it seemed necessary to lift the bird. When my hand was within less than eighteen inches of the nest, fear overcame the brooding instinct and the four eggs were abruptly exposed to view. A week later I visited the nest again. This time the bird permitted a picture at a boat's length, approximately, but flew when we approached within eight feet of the nest.

R. M. STRONG.

GREEN HERON AND NEST
Photographed by George Shiras, 3d.

Nesting Habits of the Henslow's Sparrow

By E. SEYMOUR WOODRUFF

HENSLOW'S SPARROW (*Ammodramus henslowi*), though generally considered a rare bird in New England, is a regular and not uncommon summer resident in the vicinity of Litchfield, Conn. Because of their extremely shy and retiring habits, these birds are easily overlooked, even in a locality where they are not uncommon; but, if their song be once identified, it is surprising to find how often and in how many different places it is heard,—places where their presence had never been previously suspected. The song is unique, and, once known, can never be mistaken for that of any other bird. To my ear it sounds exactly like the syllables *cheer-r-r-up*, with an upward inflection on the last syllable.

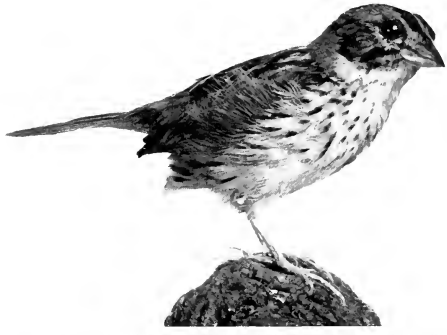
Their favorite haunts are marshy hillside meadows covered with a fairly thick growth of spirea, shrubby cinquefoil and other shrubs, though, occasionally, they will be found in bog swamps in the river bottoms. They are very difficult to flush, preferring to skulk along the ground through the low growth, where it is almost impossible to see them. If one should be flushed, it will take, as a rule, but a very short flight, keeping close to the ground with a somewhat undulating and rapid flight, and then, dropping suddenly behind a tussock or plant, disappear completely.

Though I have located many pairs of breeding birds during the past fifteen years, and have searched for their nests most patiently, my search had always been unrewarded until one day in the latter part of June, 1906. The way in which I found this nest taught me an interesting habit of this bird, and, at the same time, afforded me a probable explanation of why my previous searches had always been in vain.

Again and again I have flushed a Henslow's Sparrow from under my feet, and, each time, thought that at last I had found its nest; but, careful search would reveal nothing. So I would give it up for the time being, but on returning several times in the same day, or even on several different days, I would almost invariably flush the bird again from either the same spot or from one within a few feet of it. The fact that the bird would not always flush up from exactly the same spot made me believe that it ran a few feet from its nest each time before flushing; but a most careful search of every square inch of the ground within a circle of twenty or thirty feet in diameter would always result in failure to find it.

In June, 1906, I located a pair of Henslow's Sparrows in a narrow marsh in a pasture near the top of a high ridge. The marsh was covered with a growth of sphagnum moss, fine sedge grasses, and clumps of fern, spirea and sheep-laurel in the drier spots. For two days in succession (June 21 and 22, 1906), I had the same experience in regard to flushing the bird as that described above, but I finally came to the conclusion that it was the male that I was continually

flushing, for whenever I heard the familiar *cheer-r-r-up*, it seemed to invariably come from that very same spot. So I gave up all hope of finding his nest there and wandered on up through the marsh. When I had reached a spot fully sixty yards from where I had always seen the male Henslow's Sparrow, I heard a bird chipping close to me down in the thick marsh grass and small ferns. I suspected



HENSLOW'S SPARROW, FROM A MOUNTED SPECIMEN

at once that this might be the female objecting to my presence in the neighborhood, though it was impossible to see her and I could not flush her, for when I walked toward the sound, she would run a few feet to one side and start chipping again. So I crossed over to the other side of the marsh and hid myself behind a small bush in hopes that she might then show herself, and, at the same time, disclose the location of her nest. After waiting some time, my attention was attracted to a bird flying up the marsh which lit on the tip of a sprig of spirea for a minute and then dove down into the grass near where I had heard the female chipping. In a minute or two it reappeared and flew rapidly back to the clump of ferns and shrubs where I had previously flushed the male Henslow's Sparrow. I recrossed the marsh in order to be nearer to the spot which he had visited, and watched again. In about fifteen minutes I saw him flying up the marsh from the same direction; and this time I perceived that he had a worm in his bill, which confirmed my suspicion that he was visiting his nest. He repeated the same performance as before,—perching on the tip of a spring of spirea, he looked about for a minute, evidently in order to see whether the coast was clear, and then darted down into the grass about ten feet away. In order to be certain that I had marked the location of his nest exactly, I remained where I was until after the male had visited the nest for the third time. Each time, on leaving

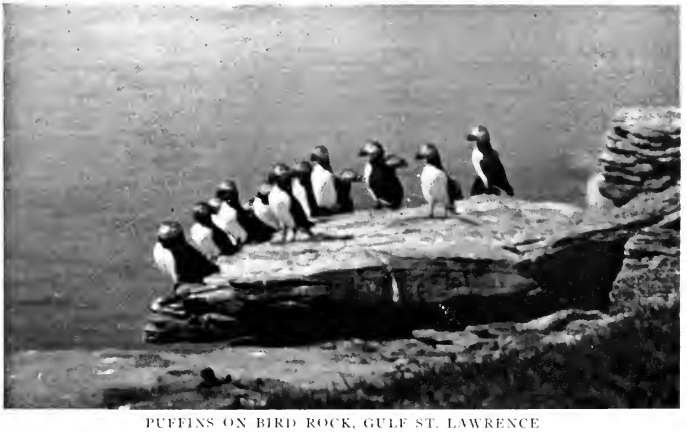
the nest, he flew rapidly back to the same place, and, alighting on the tip of some shrub, sang lustily half a dozen times before dropping down to the ground to search for more food.

During the whole of this time, which covered about an hour altogether, the female did not show herself once, but kept up a constant chipping down in the grass. The nest, which I now found without any trouble, was a slight, flimsy structure, composed of dead grass imbedded in the damp moss under a thick patch of small ferns and grass, and contained four young birds about one week old.

The fact which interested me, even more than that I had at last found the long-sought-for nest of a Henslow's Sparrow, was this probable habit of the male, restricting himself to some small, favorite feeding-ground at a considerable distance from the site of his nest, to which he invariably returned after feeding his young. I believe that this is probably always the case and, therefore, a reasonable explanation of why my previous searches had always been so fruitless. Another interesting habit of the male was that he sang only immediately after returning from feeding his young and before beginning to search for more food, and during the rest of the time remained absolutely silent.

Whether the female always remains close to the nest, as she did in this case, I am unable to say, but the probabilities are that I had merely frightened her off the nest while she was brooding her young and that she was too shy to return to it.

This experience taught me the folly of wasting time looking for a nest of a Henslow's Sparrow close to where the male establishes himself, for the chances are that the nest is from fifty to one hundred yards away.



PUFFINS ON BIRD ROCK, GULF ST. LAWRENCE
Photographed by Edwin Beaupré

The Migration of Flycatchers

FOURTH PAPER

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

With Drawings by Louis Agassiz Fuertes and Bruce Horsfall

YELLOW-BELLIED FLYCATCHER

This species winters south of the United States and is one of the latest spring migrants. It is scarcely known in the southeastern United States south of Virginia and east of the Allegheny mountains.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Washington, D. C.	16	May 14	May 9, 1902
Central Massachusetts	3	May 19	May 15, 1886
Monadnock, N. H.	3	May 20	May 18, 1897
Northern Vermont	5	May 20	May 16, 1897
Southern Maine	6	May 26	May 23, 1900
St. John, N. B.	8	May 25	May 19, 1889
Lake Mistassini, Que.	..	.....	June 2, 1885
Bayou Sara, La.	..	.....	April 26, 1887
Biloxi, Miss.	..	.....	April 30, 1904
Athens, Tenn.	..	.....	April 25, 1905
Lexington, Ky.	..	.....	May 1, 1903
St. Louis, Mo.	5	May 16	May 8, 1884
Chicago, Ill.	9	May 15	May 11, 1900
Oberlin, Ohio	..	.....	May 9, 1904
Ottawa, Ont.	6	May 23	May 19, 1906
Grinnell, Ia.	4	May 18	May 14, 1886
Lanesboro, Minn.	4	May 23	May 19, 1872
Athabaska Lake, Alberta	..	.....	June 3, 1901

The average date of the last seen in spring at Washington, D. C., is May 26, latest, May 30, 1891; Chicago, Ill., average May 24, latest May 28, 1906.

FALL MIGRATION

A very early fall migrant was seen July 28, 1859, at Washington, D. C., where the average of arrival date in the fall is August 17; the average of the last seen at St. John, N. B., is September 2, latest September 4, 1892; average at Washington, D. C., September 16, latest October 6, 1881; last at Biloxi, Miss., October 16, 1903. Some unusually late birds were noted November 29, 1876, at Reading, Mass., and December 1, 1876, at Newton, Mass.

GREEN-CRESTED FLYCATCHER

This is the only one of the small Flycatchers that breeds in the southeastern United States. It winters south of the United States, and the following dates

of arrival show that it reaches Louisiana earlier than it appears in either Florida or Texas. No proof could be stronger that the Louisiana birds arrive by a direct flight across the Gulf of Mexico.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Whitfield, Fla.	..	.....	April 6, 1903
Southern Georgia	3	April 17	April 3, 1904
Raleigh, N. C.	12	April 26	April 20, 1894
Washington, D. C.	22	May 7	May 1, 1892
Waynesboro, Pa.	3	May 5	April 25, 1891
Beaver, Pa.	5	May 9	May 6, 1902
Germantown, Pa.	4	May 7	May 2, 1888
Englewood, N. J.	4	May 16	May 5, 1897
Lockport, N. Y.	..	.....	May 13, 1888
Southern Louisiana	9	April 11	March 30, 1904
Helena, Ark.	10	April 25	April 20, 1902
Athens, Tenn.	5	April 28	April 24, 1904
Eubank, Ky.	6	April 23	April 18, 1890
St. Louis, Mo.	5	April 28	April 27, 1882
Waterloo, Ind. (near)	8	May 7	May 1, 1896
Oberlin, Ohio	10	May 9	May 4, 1899
Chicago, Ill.	5	May 10	May 6, 1899
Plymouth, Mich.	8	May 15	May 10, 1892
Petersburg, Mich.	6	May 15	May 8, 1889
Hillsboro, Ia.	5	May 10	May 5, 1897
Lanesboro, Minn.	..	.....	May 28, 1884
San Antonio, Tex.	4	April 16	April 14, 1890
Northern Texas	6	April 24	April 20, 1885
Central Kansas	4	May 6	May 2, 1906

FALL MIGRATION

Some dates of departure in the fall are: Oberlin, Ohio., September 21, 1906; Chicago, Ill., September 27, 1906; Hillsboro, Ia., September 19, 1898; Lawrence, Kans., September 10, 1905; Beaver, Pa., average September 25, latest September 29, 1899; Washington, D. C., September 15, 1907; Raleigh, N. C., average September 7, latest September 11, 1893; Tallahassee, Fla., October 9, 1904; Athens, Tenn., October 11, 1904; Ariel, Miss., October 20, 1897; Covington, La., October 27, 1899.

TRAILL'S AND ALDER FLYCATCHERS

This species has been separated into two forms,—an eastern, called the Alder Flycatcher, and a western, known as the Traill's, or the Little Flycatcher. The two forms come together in the middle of the Mississippi Valley. The species winters south of the United States and in its migration it shuns the southeastern United States, south of North Carolina.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Raleigh, N. C.	..	.....	May 14, 1902
Washington, D. C.	10	May 15	May 8, 1906
Randolph, Vt.	6	May 25	May 17, 1889
St. Johnsbury, Vt.	3	May 23	May 21, 1903
Monadnock, N. H.	3	May 23	May 20, 1903
Southern Maine	7	May 26	May 21, 1906
Quebec, Can.	5	June 2	May 25, 1905
Scotch Lake, N. B.	3	May 27	May 23, 1900
North River, P. E. I.	3	June 3	May 23, 1887
Godbout, Que.	..	.....	June 7, 1883
St. Louis, Mo.	5	May 5,	April 29, 1884
Odin, Ill.	4	May 6	May 3, 1891
Oberlin, Ohio	11	May 14	May 7, 1904
Plymouth, Mich.	7	May 16	May 11, 1892
Ottawa, Ont.	9	May 24	May 14, 1905
Southern Iowa	7	May 10	April 30, 1899
Central Iowa	5	May 19	May 17, 1886
Lanesboro, Minn.	4	May 24	May 20, 1892
Central Kansas	4	May 6	May 2, 1906
Aweme, Manitoba	..	.....	May 26, 1903
Ft. Resolution, Mackenzie	..	.....	June 19, 1903
Carlisle, N. M.	..	.....	April 16, 1890
Ft. Lyon, Colo.	3	May 12	May 9, 1884
Yuma, Colo.	3	May 21	May 18, 1905
Los Angeles, Cal.	..	.....	May 4, 1895
Southern British Columbia	3	May 22	May 18, 1889

FALL MIGRATION

On the return migration in the fall, the first was at Washington, D. C., August 16, 1886; the average date of arrival in southern Mississippi, August 30, earliest August 27, 1896. Some dates of the last seen are: Yuma, Colo., September 10, 1906; Lawrence, Kans., September 10, 1905; Grinnell, Ia., average September 5, latest September 10, 1889; Ottawa, Ont., September 4, 1905; Beaver, Pa., average September 2, latest September 7, 1887; Washington, D. C., September 17, 1890, and Raleigh, N. C., September 21, 1893.

LEAST FLYCATCHER

This species spends the winter farther north probably than any other of the eastern members of its genus. It is found at this season in Yucatan and in northern Mexico. Indeed, it may possibly winter occasionally in southern Texas, since one was taken February 7, 1880, near the mouth of the Rio Grande. It migrates earlier in the spring than the other small Flycatchers, and that it is well known is attested by the large number of notes that have been contributed concerning its movements.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
White Sulphur Springs, W. Va.	7	April 24	April 19, 1896
Waverly, W. Va.	..	.....	April 25, 1904
Washington, D. C.	16	May 2	April 20, 1881
Beaver, Pa.	7	April 20	April 22, 1891
Englewood, N. J.	11	May 2	April 30, 1905
Alfred, N. Y.	19	May 3	April 29, 1902
Ballston Spa, N. Y.	13	May 3	April 30, 1905
Hadlyme, Conn.	9	May 1	April 26, 1899
Hartford, Conn.	15	May 1	April 27, 1902
Providence, R. I.	9	May 1	April 27, 1905
Taunton, Mass.	6	April 29	April 26, 1889
Melrose, Mass.	9	April 30	April 25, 1897
West Roxbury, Mass.	7	May 1	April 25, 1897
Beverly, Mass.	8	May 5	April 30, 1899
Eastern Massachusetts	20	April 30	April 25, 1897
South Randolph, Vt.	6	May 3	May 1, 1896
St. Johnsbury, Vt.	9	May 4	April 29, 1902
Southern New Hampshire	21	May 3	April 29, 1898
Southern Maine	18	May 4	April 29, 1902
East Sherbrooke, Quebec	..	.....	May 6, 1905
Scotch Lake, N. B.	5	May 9	May 8, 1905
New Orleans, La.	..	.....	March 30, 1902
Biloxi, Miss.	..	.....	April 9, 1904
San Antonio, Tex.	3	April 16	April 14, 1885
Central Kansas	4	May 2	May 1, 1906
St. Louis, Mo.	6	April 30	April 26, 1888
Oberlin, Ohio	9	May 1	April 27, 1897
Waterloo, Ind. (near)	8	May 2	April 22, 1902
Petersburg, Mich.	10	May 2	April 29, 1892
Southwestern Ontario	14	May 3	April 28, 1900
Kearney, Ont.	5	May 11	May 9, 1901
Ottawa, Ont.	17	May 13	May 5, 1905
Hillsboro, Iowa	5	May 2	April 24, 1897
Central Iowa	15	May 4	April 28, 1888
Lanesboro, Minn.	6	May 4	April 30, 1888
Minneapolis, Minn.	10	May 7	May 2, 1905
Aweme, Manitoba	9	May 16	May 11, 1906
Indian Head, Sask.	..	.....	May 12, 1906
Yuma, Colo.	..	.....	May 13, 1905
Huntley, Mont.	..	.....	May 13, 1886
Red Deer, Alberta	..	.....	May 16, 1893
Fort Simpson, Mackenzie	..	.....	May 24, 1904

FALL MIGRATION

In view of the fact that it is to winter but a short distance south of the United States, it starts early on its fall migration. The average of the last seen at Ottawa, Ont., is August 22, latest August 30, 1888; Scotch Lake, N. B., average September 6, latest September 10, 1906; Chicago, Ill., average September 17, latest September 30, 1895.

The Massachusetts Audubon Society's Bird Lists

THE Massachusetts Audubon Society continues to develop in its members a practical interest in birds by supplying them with blanks on which to record the species observed during the year in Massachusetts. The best ten lists received by the secretary of the Society for the year ending December 31, 1907, were made by the following members: Lidian E. Bridge, West Medford, 201 species; James L. Peters, Jamaica Plain, 191 species; William L. Barker, Jamaica Plain, 153 species; Barron Brainerd, Brookline, 134 species; Bertha Langmaid, Boston, 128 species; Louise Howe, Brookline, 122 species; Samuel Dowse Robbins, Belmont, 120 species; Frank Seymour, Waverly, 83 species; Edith Seymour, Waverly, 79 species; W. Brooks Brown, Melrose, 43 species; Elizabeth K. Brown, Melrose, 32 species. The two lists first mentioned are published herewith:

	List of Birds observed by Lidian E. Bridge, West Medford, Mass., from January 1, 1907, to January 1, 1908.		List of Birds observed by James L. Peters, Jamaica Plain, from January 1, 1907, to January 1, 1908.	
Name of Species	Locality	Date	Locality	Date
Holbœll's Grebe	Nahant	Feb. 16	Ipswich	Nov. 16
Horned Grebe	Nahant	Feb. 16	Watertown	Jan. 5
Pied-billed Grebe	Middlesex Fells	Oct. 8	Franklin Park	April 19
Loon	Nahant	Jan. 11	Nahant	Oct. 11.
Red-throated Loon	Nahant	Oct. 10	Nahant	Oct. 11
Black Guillemot	Nahant	Oct. 10	Nahant	Dec. 27
Brünnich's Murre	Nahant	Dec. 20	Nahant	Nov. 2
Razor-billed Auk	Nahant	Jan. 11	Nahant	Nov. 23
Kittiwake	Nahant	Oct. 28	Ipswich	Nov. 16
Great Black-backed Gull	Nahant	Jan. 5	Boston	Jan. 12
Herring Gull	Medford	Jan. 4	Boston	Jan. 3
Ring-billed Gull	Nahant	Oct. 18	Nahant	Oct. 11
Laughing Gull	Nantucket	July 28		
Bonaparte's Gull	Ipswich	Aug. 17	Ipswich	Nov. 16
Common Tern	Nantucket	July 28	Boston	Sept. 19
Arctic Tern	Wood's Hole	July 27		
Roseate Tern	Nantucket	July 28		
Least Tern	Nantucket	July 29		
Wilson's Petrel	.....	.....	Mass. Bay	Sept. 19
Gannet	Ipswich	Oct. 12	Ipswich	Oct. 19
Double-crested Cormorant	Ipswich	Oct. 12	Ipswich	Oct. 19
American Merganser	Middlesex Fells	April 14	Middlesex Fells	April 19
Red-breasted Merganser	Nahant	Feb. 16	Nahant	Mar. 16
Hooded Merganser	Middlesex Fells	Oct. 20	Middlesex Fells	Oct. 20
Mallard	Middlesex Fells	Oct. 27	Middlesex Fells	April 19
Black Duck	Middlesex Fells	April 3	West Roxbury	Mar. 18
Red-legged Black Duck	Middlesex Fells	April 3	Cambridge	Mar. 9
Green-winged Teal	Middlesex Fells	Nov. 23	Middlesex Fells	Nov. 23
Pintail	Middlesex Fells	Oct. 19	Middlesex Fells	Nov. 30
Wood Duck	.....	.....	Brookline	May 19
Redhead	Jamaica Pond	Oct. 25	Jamaica Plain	Oct. 25
Scaup Duck	Nahant	Mar. 16	Nahant	Dec. 24
Lesser Scaup Duck	Cambridge	Nov. 14	Jamaica Plain	Oct. 23

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Name of Species	Locality	Date	Locality	Date
American Golden-eye	Nahant	Jan. 5	Boston	Jan. 5
Buffle-head	Nahant	Mar. 9	Nahant	Mar. 16
Old-squaw	Nahant	Jan. 5	Nahant	Mar. 16
American Eider			Vineyard Sound	Nov. 30
American Scoter	Nahant	Nov. 2	Nahant	Mar. 16
White-winged Scoter	Nahant	Jan. 11	Nahant	Mar. 16
Surf Scoter	Nahant	Nov. 2	Ipswich	Nov. 16
Ruddy Duck	Nantucket	July 29	Jamaica Plain	Oct. 19
Canada Goose	Medford	Nov. 18	West Tisbury	Nov. 29
American Bittern	Ipswich	April 19	Wayland	June 15
Least Bittern	Cambridge	June 11		
Great Blue Heron	Medford	April 28	Ipswich	Oct. 19
Green Heron	Cohasset	May 30	Franklin Park	May 11
Black-crowned Night Heron	Middlesex Fells	April 28	Cambridge	April 12
Virginia Rail	Cambridge	June 8	Cambridge	June 8
Sora	Cambridge	June 11	Cambridge	June 8
American Coot	Middlesex Fells	Nov. 24	Jamaica Plain	Oct. 6
Wilson's Snipe	Cambridge	April 15	Cambridge	April 12
Dowitcher	Ipswich	Aug. 24		
Knot	Ipswich	Aug. 17		
Pectoral Sandpiper	Ipswich	Aug. 24		
White-rumped Sandpiper	Ipswich	May 24		
Least Sandpiper	Ipswich	May 24	Ipswich	May 25
Red-backed Sandpiper	Ipswich	Oct. 30	Nahant	Sept. 28
Semipalmated Sandpiper	Ipswich	May 28	Ipswich	May 25
Sanderling	Ipswich	Aug. 17	Nahant	Sept. 28
Greater Yellow-legs	Medford	May 10	Ipswich	May 25
Yellow-legs	Ipswich	Aug. 17		
Solitary Sandpiper	Concord	May 18		
Spotted Sandpiper	Waverly	May 18	Newton	April 25
Black-bellied Plover	Ipswich	May 24	Ipswich	May 25
American Golden Plover	Middlesex Fells	Oct. 20		
Semipalmated Plover	Ipswich	May 28	Nahant	Sept. 28
Piping Plover	Nantucket	July 29		
Ruddy Turnstone	Ipswich	Aug. 17		
Bob-white	*Arboretum	June 22	Arboretum	April 21
Ruffed Grouse	Middlesex Fells	April 12	Arboretum	Jan. 1
Mourning Dove	Ipswich	Mar. 23	Bedford	May 18
Marsh Hawk	Ipswich	Mar. 23	Wayland	June 15
Sharp-shinned Hawk	Medford	April 26	Arboretum	May 5
Cooper's Hawk	Middlesex Fells	April 12	Franklin Park	May 12
Red-tailed Hawk	Cambridge	April 15	Natick	Mar. 30
Red-shouldered Hawk	Middlesex Fells	April 12	West Roxbury	Jan. 5
Broad-winged Hawk			West Roxbury	Mar. 24
Am. Rough-legged Hawk	Middlesex Fells	Jan. 20	West Tisbury	Nov. 28
Bald Eagle			Braintree	June 17
Pigeon Hawk	Squantum	Nov. 9	Waltham	Mar. 23
American Sparrow Hawk	Medford	Mar. 30	Franklin Park	Feb. 8
American Osprey	Middlesex Fells	April 14	Jamaica Plain	April 17
Short-eared Owl			Nahant	Oct. 26
Screech Owl	Medford	May 10		
Great-horned Owl			Concord	Dec. 28
Yellow-billed Cuckoo	Middlesex Fells	May 20	Arboretum	June 16
Black-billed Cuckoo	Middlesex Fells	May 23	Arboretum	May 18
Belted Kingfisher	Middlesex Fells	April 25	Franklin Park	April 14

*Wherever the word Arboretum occurs, it refers to Arnold Arboretum

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Name of Species	Locality	Date	Locality	Date
Ha ry Woodpecker	Middlesex Fells	April 7	Weston	Mar. 23
Downy Woodpecker	Medford	Feb. 17	Franklin Park	Jan. 1
Yellow bellied Sapsucker			Franklin Park	Oct. 5
Northern Flicker	Medford	Feb. 13	Franklin Park	Jan. 1
Whippoorwill			Jamaica Plain	May 18
Nighthawk	Medford	Aug. 31	Marlboro	May 30
Chimney Swift	Medford	May 16	Jamaica Plain	May 12
Ruby-throated Hummingbird	Medford	May 17	Jamaica Plain	May 12
Kingbird	Middlesex Fells	May 15	Jamaica Plain	May 12
Crested Flycatcher	Cohasset	May 30	Jamaica Plain	May 19
Phœbe	Middlesex Fells	Mar. 24	Weston	Mar. 23
Olive-sided Flycatcher	Greylock	June 15		
Wood Pewee	Middlesex Fells	May 12	Concord	May 18
Yellow-bellied Flycatcher	Greylock	June 15		
Alder Flycatcher	Greylock	June 15	Marlboro	May 30
Least Flycatcher	Middlesex Fells	May 12	Franklin Park	May 11
Horned Lark	Nahant	Jan 5	Nahant	Jan. 12
Prairie Horned Lark	Ipswich	Aug. 24	Ipswich	Oct. 19
Blue Jay	Medford	Jan.. 2	Franklin Park	Jan. 1
American Crow	Medford	Jan. 2	Franklin Park	Jan. 1
Bobolink	Medford	May 13	West Roxbury	Mar. 12
Cowbird	Medford	April 5	Franklin Park	Mar. 24
Red-winged Blackbird	Medford	Mar. 24	Franklin Park	Mar. 17
Meadowlark	Medford	Mar. 27	West Roxbury	Mar. 3
Orchard Oriole	Ipswich	May 28	Ipswich	May 25
Baltimore Oriole	Medford	May 13	Franklin Park	May 14
Rusty Blackbird	Medford	April 8	Waltham	April 6
Bronzed Grackle	Medford	Mar. 17	West Roxbury	Mar. 16
Canadian Pine Grosbeak	Medford	Jan. 6	Waltham	Jan. 5
Purple Finch	Medford	April 19	Franklin Park	Jan. 6
American Crossbill	Ipswich	Mar. 23	Jamaica Plain	Jan. 5
White-winged Crossbill	Middlesex Fells	Jan. 6	Franklin Park	Jan. 1
Redpoll	Medford	Feb. 17	Waltham	Jan. 5
American Goldfinch	Medford	Feb. 10	Arboretum	Jan. 1
Pine Siskin	Middlesex Fells	April 5	West Roxbury	Jan. 20
Snowflake	Nahant	Mar. 16	Nahant	Oct. 26
Lapland Longspur	Ipswich	Mar. 23	Ipswich	Nov. 16
Vesper Sparrow	Medford	Mar. 30	Belmont	April 12
Ipswich Sparrow	Ipswich	Mar. 23	Ipswich	Oct. 19
Savanna Sparrow	Medford	April 26	Cambridge	April 12
Grasshopper Sparrow	Concord	June 7	Concord	June 21
Henslow's Sparrow	Norwood	June 1	Norwood	June 1
Sharp-tailed Sparrow	Ipswich	May 24	Ipswich	May 28
White-crowned Sparrow	Concord	May 16	Franklin Park	Oct. 5
White-throated Sparrow	Medford	April 26	West Roxbury	Jan. 5
Tree Sparrow	Medford	Feb. 17	Franklin Park	Jan. 5
Chipping Sparrow	Medford	Mar. 30	Dover	April 4
Field Sparrow	Medford	April 12	Dover	April 4
Slate-colored Junco	Middlesex Fells	Feb. 17	Franklin Park	Jan. 7
Song Sparrow	Medford	Mar. 17	Arboretum	Jan. 1
Lincoln's Sparrow	Boston	May 20	Boston	May 21
Swamp Sparrow	Middlesex Fells	Mar. 30	West Roxbury	April 6
Fox Sparrow	Medford	Mar. 24	Franklin Park	Mar. 17
Towhee	Medford	April 26	Franklin Park	May 1
Rose-breasted Grosbeak	Medford	May 10	Jamaica Plain	May 14

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Name of Species	Locality	Date	Locality	Date
Indigo Bunting	Medford	May 19	Franklin Park	May 14
Scarlet Tanager	Medford	May 19	Franklin Park	May 14
Purple Martin	Concord	June 7	Concord	May 18
Cliff Swallow	Concord	May 16	Concord	May 18
Barn Swallow	Middlesex Fells	May 1	Franklin Park	April 27
Tree Swallow	Medford	April 25	Franklin Park	April 14
Bank Swallow	Concord	May 18	Jamaica Plain	May 12
Cedar Waxwing	Medford	Mar. 19	Roxbury	Jan. 25
Northern Shrike	Medford	Jan. 8	Franklin Park	Jan. 20
Red-eyed Vireo	Middlesex Fells	May 15	Franklin Park	May 14
Warbling Vireo	Medford	May 14	Concord	May 18
Yellow-throated Vireo	Medford	May 14	Franklin Park	May 16
Blue-headed Vireo	Middlesex Fells	May 12	Concord	May 18
White-eyed Vireo	Middlesex Fells	May 12	Braintree	June 17
Black and White Warbler	Middlesex Fells	April 28	Franklin Park	April 27
Golden-winged Warbler	Middlesex Fells	May 15	Franklin Park	May 18
Nashville Warbler	Middlesex Fells	May 15	West Roxbury	May 12
Northern Parula Warbler	Middlesex Fells	May 12	Franklin Park	May 18
Yellow Warbler	Medford	May 10	Franklin Park	May 5
Black-throated Blue Warbler	Middlesex Fells	May 19		
Myrtle Warbler	Middlesex Fells	Mar. 30	Arboretum	Jan. 6
Magnolia Warbler	Middlesex Fells	May 19	Franklin Park	May 16
Chestnut-sided Warbler	Middlesex Fells	May 12	Franklin Park	May 16
Bay-breasted Warbler	Middlesex Fells	June 2	Arboretum	May 26
Black-poll Warbler	Medford	May 18	Franklin Park	May 18
Blackburnian Warbler	Medford	May 21	Franklin Park	May 18
Black-throated Green Warb'r	Middlesex Fells	May 8	West Roxbury	May 12
Pine Warbler	Middlesex Fells	April 5	West Medford	April 19
Palm Warbler	Ipswich	Oct. 12	Franklin Park	Oct. 5
Yellow Palm Warbler	Middlesex Fells	Mar. 30	Natick	Mar. 30
Prairie Warbler	Arboretum	June 8	South Sudbury	May 30
Ovenbird	Middlesex Fells	May 12	West Roxbury	May 12
Water-Thrush	Medford	May 10	Franklin Park	May 21
Mourning Warbler	Greylock	June 15		
Northern Yellow-throat	Medford	May 17	Franklin Park	May 14
Yellow-breasted Chat	Newton	June 28	Braintree	June 17
Wilson's Warbler	Middlesex Fells	May 19	Franklin Park	May 18
Canadian Warbler	Middlesex Fells	May 23	Jamaica Plain	May 26
American Redstart	Medford	May 14	Belmont	May 17
American Pipit	Middlesex Fells	April 12	Ipswich	Oct. 19
Catbird	Middlesex Fells	May 15	Franklin Park	May 5
Brown Thrasher	Middlesex Fells	May 12	Franklin Park	May 5
House Wren	Medford	May 5	Belmont	May 17
Winter Wren	Greylock	June 15	Franklin Park	April 28
Short-billed Marsh Wren	Norwood	July 4	Wayland	June 15
Long-billed Marsh Wren	Cambridge	June 8	Cambridge	May 24
Brown Creeper	Middlesex Fells	Jan. 3	Waltham	Jan. 5
White-breasted Nuthatch	Middlesex Fells	Jan. 8	Franklin Park	Jan. 1
Red-breasted Nuthatch	Middlesex Fells	Jan. 6	Arboretum	Jan. 1
Chickadee	Medford	Jan. 3	Franklin Park	Jan. 1
Golden-crowned Kinglet	Middlesex Fells	April 3	Arboretum	Jan. 1
Ruby-crowned Kinglet	Middlesex Fells	April 7	Franklin Park	April 27
Wood Thrush	Medford	May 17	Concord	May 18
Wilson's Thrush	Middlesex Fells	May 1	Belmont	May 17
Gray-cheeked Thrush	Waverly	May 25	Franklin Park	Sept. 28

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Name of Species	Locality	Date	Locality	Date
Olive-backed Thrush	Waverly	May 18	Franklin Park	May 18
Hermit Thrush	Middlesex Fells	April 7	Franklin Park	April 6
American Robin	Medford	Mar. 17	Franklin Park	Feb. 10
Bluebird	Medford	Mar. 18	West Roxbury	Mar. 16
Ring-necked Pheasant	Medford	Feb. 17	Franklin Park	Jan. 1
Kumlein's Gull	Boston	Dec. 7	Boston	Dec. 31
Mockingbird	Medford	Nov. 20	West Medford	Nov. 21
Brewster's Warbler	Arboretum	June 4	Arboretum	May 26
Hoary Redpoll	Nahant	Mar. 16		
Migrant Shrike	Medford	April 14		
Shoveller	Middlesex Fells	Nov. 30		
American Widgeon	Middlesex Fells	Dec. 8		
Philadelphia Vireo	.....	.....	Marlboro	May 30
Northern Phalarope	.....	.....	Wayland	Oct. 5
Iceland Gull	.....	.....	Swampscott	Dec. 24
Heath Hen	.....	.....	West Tisbury	Nov. 28

Familiar Bird Names

The current discussion in BIRD-LORE ought to bear satisfying fruit for everyday bird-naming. The writer offers a few criticisms as regards the suggestions of both Mr. Dawson and Mr. Perkins (as given in late issues of BIRD-LORE). As for one of the titles in question, one might make a composite, and call the 'Louisiana Water Thrush' henceforth the Southern Water Thrush. Mr. Dawson's 'Western' Tanager is too inclusive: there are other western Tanagers than that so misleadingly called the 'Louisiana' Tanager. How would 'Red-headed Tanager' do?

Now, as to the titles suggested by Mr. Perkins: Can we not let 'Tree' Sparrow alone? The term 'Canadian' adds nothing; and is not distinctively definitive. Let Field Sparrow stand. The name is good; and ought to stand by right of prescription. Why change 'Nashville' Warbler to 'Birch'? The latter title can have but a merely local appropriateness. The other suggestions by Mr. Perkins, in March–April BIRD-LORE, are capital.

As a promoter of discussion, merely, the writer cites a number of possibly helpful changes in our popular bird-nomenclature:

The indigenous Rough-legged Hawks: Northern and Southern Rough-legs.
Kamchatkan Cuckoo: Siberian Cuckoo.
Arkansas King-bird: Western King-bird.
Restore Acadian Flycatcher.
Eastern Meadowlark (as a matter of pure distinction).
Mexican Cross-bill: Sierra Cross-bill (or, Bendire Cross-bill, or Mountain Cross-bill).
Tree Sparrow: Winter Sparrow.
Arctic Towhee: Spotted Towhee.
Pyrrhuloxia: Bull-finch.
Bohemian Waxwing: Greater Waxwing.
Prothonotary Warbler: River Warbler.
Nashville Warbler: Brown-capped Warbler.
Tennessee Warbler: Gray Warbler; (or, Green-gray Warbler).
Blackburnian Warbler: Orange Warbler.
Sycamore Warbler: White-browed Warbler.
Connecticut Warbler: White-eyed Warbler.
MacGillivray Warbler: Tolmie Warbler.
Canadian Warbler: Vested Warbler.
Sprague Pipit: Prairie Pipit.
American Robin: Eastern Robin.
Holboell Grebe: Red-necked Grebe.
Ani: Tick-Bird.
Leucosticte: Rosy Finch.
Junco: (let it *stand*, please, and convert the hyper-sentimentally nick-named 'Snow-flake' into plain, 'Snow-bird.')
Grass-hopper Sparrow: Sibilant Sparrow.
Cinereous Sparrow: Ashy Sparrow.
Hepatic Tanager: Ruddy Tanager.
Verdin: Golden Tit.
Siberian Yellow Wagtail: Alaskan Wagtail.

A number of the above suggestions are in no sense original. They are collated, here, to provoke discussion.—P. B. PEABODY, *Blue Rapids, Kansas.*

Notes from Field and Study

The Skylark, Pro Tem

The "Skylark, *pro tem.*" So, I named the Bobolink, one day, when my memories were still vivid of the Skylarks I had heard as they were sailing the air and singing above Chorley Woods, a broad, sunny heath not so many miles from old London itself. Yes, without prejudice to either songster, I still adhere to the inspiration of the moment, which recorded this impression of *spiritual* kinship between the English and the American feathered seraph (each aiming at Heaven's gate, in a June-day transport). Each was an embodied lyric. The former contained more stanzas, it is true; but the requisite of "simple, sensuous and passionate" could be applied equally to each of these poets-with-wings. While the rapture and ascent of the sky lasted, my Bobolink could contend, at every point, favorably with the darling of Shelley's adoring muse. Or so, a at least, I thought.

My Skylark, *pro tem*, sailed the air, and dropped earthward his astonishing and ecstatic barcarolle. Sometimes he traversed a distinct circle,—a circle which, probably, enclosed the previous spot of earth, where mate and nestlings were basking in the warm June sun. Again, he sailed about the little field, taking a lower range than before—seemingly with a rapturous uncertainty as to where his airy gyrations would "bring up." Sometimes he alighted for an instant on a stone wall, and once, upon the telegraph wire, where he told again all his heart-full of joys; or, rather, it was as though joy told itself through a bird's bill. A memory,—launched on an indignant mental protest came to me just then: "spink, spank, spink!" The wonderful performance to which I was listening, was no more like this syllabic burlesquery in sound, than a Nightingale's song would be attempted to be expressed by any like ridiculous combination of vowels and consonants in a human mouth. Up into the sky again the little lyrist flew, his voice yielding a pure, harp-like quality, with a flute at intervals miraculously interrupting the harp strain. As he made his ascent, he became, as it were, a whole faint, fine orchestra of delicious bird-music, combining, in delighted confusion, whistling, warbling, trilling, with a tender call-note running through the whole. But he had reached the top of his invisible, lofty Piranesi staircase, and must reel back to earth, somehow. His flight of celestial music had seemed to be too much for him. Having scattered it all, he came fluttering down, and sank for a moment's silent recollection of himself. With loosened wings (I could see the heave of his breast), he lighted and rested on the stone wall near where I watched. And another Bobolink close by, as if to improve the opportunity of such silence, rose to occupy the aërial auditorium, sailing and singing as his brother before him had done.—EDITH M. THOMAS, *New Brighton, S. I.*

Sea Birds as Homing 'Pigeons'

American ornithologists and bird-lovers will probably be surprised to learn that the Frigate Bird (*Fregata aquila*) is frequently employed by the natives of various parts of Polynesia as a carrier "Pigeon."

I have recently called attention to this fact in the Bulletin of the New York Zoölogical Society, and it seems desirable to make it known also to the readers of BIRD-LORE. During the past summer, Prof. John B. Watson made observations on the homing instincts of Terns, and Noddies during their nesting periods.

According to the report of Director A. G. Mayer, of the marine laboratory at the Dry Tortugas, Florida, where Prof. Watson studied the birds, "he demonstrated that if the Sooty Terns and Noddies were taken to Cape Hatteras and liberated, they would return to their nests on Bird

Key, Tortugas, a distance of 850 statute miles."

In the course of a winter's voyage on the U. S. S. "Albatross" in the South Seas, the writer found among the natives of the Low Archipelago many tame Frigate Birds. The latter were observed on horizontal perches near the houses, and were supposed to be merely the pets of the children who fed them.

They were entirely tame, having been reared in captivity from the nest. As our acquaintance with the people developed, we discovered that the birds were used by them after the manner of homing "Pigeons" to carry messages among the islands.

The numerous islands of Low Archipelago extend for more than a thousand miles in a northwest and southeast direction, and it appears that the birds return promptly when liberated from quite distant islands. They are distributed by being put aboard small vessels trading among the islands. The birds are liberated whenever there is news to be carried, returning to their perches sometimes in an hour or less, from islands just below the horizon and out of sight of the home base. Generally they are in no great hurry. As the food of the Frigate Bird may be picked up almost anywhere at sea, there is no means of ascertaining how much time the bird loses in feeding or trying to feed *en route*. It may also linger to enjoy its liberty with other Frigate Birds.

I did not observe tame Frigate Birds elsewhere in Polynesia, but Mr. Louis Becke, who is familiar with most of the South Sea islands, says they were used as letter carriers on the Samoan islands when he was there in 1882, carrying messages between islands sixty to eighty miles apart. When he lived on Nanomaga, one of these islands, he exchanged two tame Frigate Birds with a trader living on Nuitao, sixty miles distant, for a pair tame reared on that island.

The four birds, at liberty, frequently passed from one island to the other on their own account, all going together on visits to each other's homes, where they were fed by the natives on their old perches. Mr. Becke's pair usually returned to him within twenty-four to thirty-six hours. He tested the speed of the 'Frigate' by sending one of his birds by vessel to Nuitao, where it was liberated with a message at half-past four in the afternoon. Before six o'clock of the same day the bird was back on its own perch at Nanomaga, accompanied by two of the Nuitao birds, which, not being at their perch on that island when it was liberated, it had evidently picked up *en route*. Sixty miles in an hour and a half is probably easy enough for the Frigate Bird, as in Malayo-Polynesia it is said to have frequently returned a distance of sixty miles in one hour.

It becomes entirely tame and familiar when raised from the nest, and if given liberty returns regularly to its home perch at night.

The largest rookery of Frigate Birds I have seen is at Tekokoto, in the Low Archipelago.

Frigate Birds inhabit tropical and subtropical seas. The spread of wing is phenomenal for the size of the bird, being about eight feet, giving a wing power perhaps unequaled; although Walt Whitman has somewhat exaggerated its power of flight in the lines:

"Thou who has slept all night upon the storm,
Waking renewed on thy prodigious pinions,
Thou born to match the storm (thou art all wings),
At dusk thou look'st on Senegal, at morn America."

Judging from my South Sea experience, the 'Frigate' goes to roost at night, like many other sea-fowls.—CHARLES H. TOWNSEND, *New York City*.

Mortality Among Birds

Any observer who has visited large breeding colonies of birds is aware that there is a heavy death rate among the young birds, and that many eggs also are destroyed by causes over which man has but small control. For example, in Heron

colonies, the young frequently fall from the nests and are either drowned or become entangled in the twigs of the trees or on the edge of the nest and are hung. Crows in many instances destroy large numbers of eggs. In colonies of Terns, the writer has seen young which have become entangled in bunches of sand spurs and died, and still others which have been killed by crabs before they could free themselves of their shells.

Few, however, I suspect are aware of the great loss of life which annually occurs from the destructiveness of storms and high tides. On Royal Shoal island, North Carolina, in June, 1907, a hail storm killed over one hundred and sixty young Laughing Gulls; barely a dozen were left alive on the island. A few days later a high storm tide swept one end of the island, carrying with it into the Sound about 15,000 eggs, mostly of the Royal Tern. On another portion of the island, 1,000 eggs were carried by the water from their nests and left in a great windrow along the beach.

The wardens of the Audubon Society frequently report similar disasters to the breeding birds. In their annual reports, statements are made showing the number of eggs laid and also the number of young believed to have been raised. While their statements cannot be expected to be absolutely accurate, they are probably not very far wrong, as in some instances at least the figures are based on careful observations and a daily counting of the eggs and young.

SHOWING WINDROW OF ROYAL TERN'S EGGS

The beach on the left has been swept by the waves. On the right are seen young and eggs in the nests which were undisturbed. Photographed by T. Gilbert Pearson

Below are given the combined estimates of the Audubon wardens, showing the number of eggs deposited and the number of young raised by four species in the chief breeding colonies protected on the Atlantic and Gulf coasts, for the season of 1907:

	Eggs	Young
Laughing Gull	50,070	37,300
Herring Gull	71,018	46,600
Black Skimmer	28,350	21,050
Common Tern	32,300	19,025
Brown Pelican	3,500	750

Thus of 194,838 eggs laid, 70,103 were destroyed, chiefly through storms. In

other words, only about 64 per cent of the eggs laid produced young which matured sufficiently to leave the rookeries.

Much of this destruction of bird-life could probably be prevented, especially on the low-lying islands of the southern coasts, by the construction of sea walls, either of stone or low piling, to check the force of the waves and prevent them from running far up the sloping shores. This experiment is now being tried on one of the North Carolina islands.—T. GILBERT PEARSON, *Greensboro, N. C.*

Hummingbird Notes

On June 4, 1907, a female Hummingbird had been seen often around a larch near the house, and on this day the nest was started—a tuft of yellowish down on a twig about fourteen feet from the ground. At 9.30 the next morning, after an hour or more of feeding and playing with her mate around the weigela bushes, she was hard at work again. When it was possible to follow her flight, the particles of down, cobweb, etc., forming the body of the nest, seemed to be collected from among the young leaves of near-by trees, especially the elms; when after the scraps of lichen and moss she was more easily watched, for, darting over to an elm or chestnut, she flew up and down and around the trunk, here and there standing still in the air as she picked off some tiny bit, then back to the larch, alighting directly in the nest. It was most interesting to watch the bird at work; she paid no attention to me, though I stood so near that no opera glass was necessary save when trying to name some piece of building material. Flying directly on to the nest, she would reach over, place her scrap of lichen and give a touch here and there, or if it were down, fix that on the upper edge, pressing and shaping the nest with that tiny body; then in another instant she was off like a winged bullet. She lost but little time during working hours; in one-half hour she made thirty-one trips, the the busiest five minutes of that period including ten trips. Usually she brought down for several trips, then several pieces of lichen to bring the outer covering nearly to the top of the down. Yet several times she returned with nothing visible in her bill, but, after sitting in place a moment, reached over and worked a little with the lichens: is saliva used to aid in fastening these? During afternoon, the bird seemed to do little if any work, though sometimes seen perching near. Throughout, the male showed no interest in the work, and I seldom saw him near the tree.

By the 8th the nest looked compete, but the bird was still adding down to the upper edge and constantly shaping it. June 13, sitting had begun, but—the twig was dead, the wind high, and six days later nest and a broken egg lay under the tree.—ISABEL McC. LEMMON, *Englewood, N. J.*

Nest of Wood Thrush into Which a Cowbird Had Deposited Five Eggs

The nest which is the subject of the accompanying photograph was discovered in the crotch of a leaning box elder sapling, seven or eight feet up. When discovered it contained one egg of the Wood Thrush and one of the Cowbird.

The following day it was found that the Wood Thrush had laid another egg, and that there were three Cowbird's eggs instead of one there, which proved to me that there were at least two Cowbirds using the nest instead of one, for two Cowbird's eggs had been deposited in less than twenty-four hours.

I removed the Cowbird's eggs after photographing the nest. This was done on June 5. On the 13th another Cowbird's egg was found in the nest, but there had been no change in the number of the Thrush's eggs.

On the 20th the nest was again visited and one young Thrush was found, apparently two days old, but no traces of the other two eggs were seen. On the 25th the nest was again visited and another Cowbird's egg was removed. On July 1, both mother and nestling left the nest permanently.

In all probability, if the Cowbird's eggs—

five in all—had not been removed, the Wood Thrush would not have been able to hatch a single nestling, and, if she had, the lusty young Cowbirds would have smothered or crowded it out of its rightful home.—GEO. P. PERRY, *Sterling, Ill.*

Albino Flickers

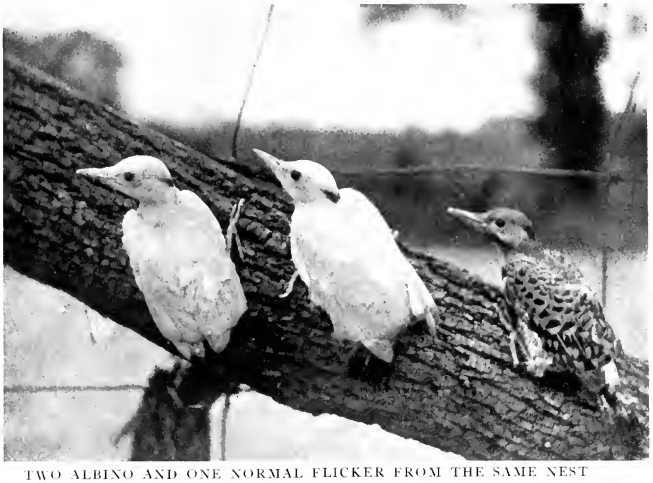
These Flicker photographs were taken June 15, 1907, in the southwestern part of Ohio, near New Paris. The nest was discovered about May 30, by Miss Ruth Petry, at which time the birds had been hatched some days. The nest was in a large basswood fence-post, with the opening only two feet from the ground. The nestlings were six in number, but only two of them showed any departure from the normal.

These two were creamy white in color, with the exception of the red crescent on the nape. The shafts of the tail feathers were yellow, as in the normal, and the eyes were pink, as is usual with albinos. The white birds were fully as large as the others, and quite as lively.

One week after the photographs were made, all the birds had left the nest, but one of the albinos was found on a small tree nearby. It was secured, and is now in the collection of the Biological Department of Earlham College, at Richmond, Indiana.

NEST OF WOOD THRUSH WITH THREE COWBIRDS' EGGS
Photographed by George P. Perry

The other bird remained in the neighborhood of the nest for about a month. From its behavior in flight, especially its tendency to circle about, it seemed probable that the light blinded it more or less. After some weeks, nothing more was seen of it. It is likely that it paid the penalty of uniqueness, and fell a victim to some predatory Hawk.—LOREN C. PETRY. *Haverford, Penna.*



TWO ALBINO AND ONE NORMAL FLICKER FROM THE SAME NEST
Photographed by Loren C. Petry

Identification Sketches

I wonder if any of your readers has ever tried the following method of taking notes on birds. I pass it on in the hope that it may, perhaps, help some ambitious beginner, especially in the task of bringing order out of the delightful chaos of his first Wood Warbler observations.

On a dozen slips of paper sketch the rough outline of a bird. With these slips in your note-book, and a box of colored crayons in your pocket, seek a favorable spot, sit down and wait. Then, when the Warbler flock begins to gather about, take notes by filling in your outline sketches. For example, if a Chestnut-sided Warbler appears, you can, with a bit of black crayon, record in half a second the peculiar V-shaped mark on the face that would have taken a number of seconds to describe in writing. And after your next glimpse of him, a blur of yellow on his head, a smear of chestnut along his side—and lo! already you have a sketch that may not be an artistic triumph, but which will surely serve later to identify your bird. Not alone in the recording of observations is time saved by this method. Often it is necessary to refer hastily to some one of your incomplete records. It would take some time to read and form written words from the mental image required; whereas it takes but a glance at the crayon sketch. And when there are Warblers about one, appearing and disappearing and reappearing, elusive as fairy-folk, among the leaves, who does not grudge every second's attention that so prosaic a thing as a note-book demands?
—Marian Warner Wildman.

A Prothonotary Warbler in Central Park

While sitting by one of the inlets of the lake in Central Park on May 8, 1908, I was attracted by an unfamiliar song which awakened my curiosity and put me on the alert to watch for the singer. Very soon I saw what looked like a little gold ball flying toward me from the opposite bank, and lighting in a bush not four feet from me, it poured forth the song I so wanted to hear. I looked, and looked, and my heart gave a bound when I thought of a skin of a Prothonotary Warbler I had cherished

for years, every feather of which I knew. "It is without doubt the bird," I exclaimed, "but how did it get so far away from its range?" I remained some time watching it fly back and forth, then went to the American Museum and reported it, and examined specimens to make sure I was right. So far as I know it has never been seen in the park before.

On May 5, Mr. Chubb and Dr. Wiegman both saw this bird.—ANNE A. CROLIUS, *New York City.*

Tufted Titmouse in Central Park

A Tufted Titmouse spent nearly two weeks in May of this year in Central Park. It was not shy but, on the contrary, rather enjoyed getting near and surprising you by a loud whistle continuing five minutes or more. I think this is the only record of this species for Central Park.—ANNE A. CROLIUS, *New York City.*

Briars as Nest Protectors

I have heard of a way of preventing cats from climbing trees for birds that was new to me, and possibly may prove of value. Take stalks of rose-bushes, or others with briars—dead ones will do. Tie them together strongly and put them round the trunks of trees too high up, of course, for a cat to jump above it. It is said that a cat will not cross them.—M. A. AYERS, *Fitzwilliam, N. H.*

The Prairie Horned Lark in Fairfield County, Connecticut.

On March 25, I heard of a nest containing four eggs which had been found in Great Plain district, Danbury, by Miss NeSands, a bright school-girl of fourteen years, who is very much interested in birds. I visited the nest on the next afternoon and was very much surprised to find it a nest of the Prairie Horned Lark.

The nest, a neat and well-made structure of fine, soft dead grass, was placed in a hollow, caused by the removal of a small stone, on the gravelly western slope of a large round-topped sandhill. To the northwest from the foot of the hill stretches a small valley with an old cornfield and pasture lot. No houses can be seen from the immediate vicinity of the nest, although there are several just over the surrounding hills.

On the morning of March 27, Mr. H. C. Judd, of Bethel, and Mr. Jesse C. A Meeker, of Danbury, went with me to the nest in order to establish the identity of the birds beyond all possible doubt, but were very much disappointed to find that

NEST OF PRAIRIE HORNED LARK
Photographed by Robert S. Judd

three of the eggs had hatched during the night.

I was unable to visit the nest again until April 6, and was very fortunate to find one of the young still at home, although he was perfectly able and willing to leave. In fact, after I first took him from the nest, he would make a break for liberty as fast as his legs could carry him every time I put him down. Once I let him run just to see what would happen. He went about a rod, then crouching close to the ground remained perfectly still until I put my hand over him, seeming to have great faith in his protective coloration. It was indeed remarkable how well the grayish

brown-tipped black feathers of his back matched the general tone of the sidehill.

The old birds were somewhat shy, never coming nearer than thirty or forty feet, excepting once when the young one called while I was holding him; then the female lit for a moment on the ground within a few feet and showed all the signs of motherly anxiety which a bird can. At other times she was flying back and forth at some distance with a peculiar jerky flight, seeming to punctuate each wingbeat with a sharp whistled note, only occasionally alighting on the ground, or on a fence post for a few seconds. The male kept himself for the most part in the background.

Just before leaving I placed the young one in the nest and started to look over the sidehill, in the hope of finding another of the family. In the meantime the female lit on the top of the hill and commenced to whistle. When I returned to the nest it was empty, nor could I find the young one after searching thoroughly. She had evidently whistled to very good purpose.

The whole family had disappeared completely, leaving only a trampled nest to show where these hardy little birds had reared their young in spite of the cold, blustering March weather.—ROBERT S. JUDD, *Bethel, Conn.*

What the Starling Does at Home

In view of the reports concerning the habits of the Starling which have appeared in recent numbers of BIRD-LORE, the notes given below, which show what the bird does when at home, may be of interest. These notes are from an article entitled: "Birds in Relation to the Farm, the Orchard, the Garden, and the Forest," which is to be found in the August (1907) number of the "Agricultural Students' Gazette," a periodical published at Cirencester, England.

"The Starling is a splendid bird on grass land, foraging for leather jackets (larvæ of cranefliés), wire-worms, etc., rids the sheep of a few of their ticks, but in a fruit district it comes in droves into the strawberries and attacks the cherries wholesale (Hereford); peas, apples, plums, as well as cherries (Kent), also raspberries. Very valuable insect-destroyers, but getting too numerous (Nott). In my fruit-fields (between Marden and Colchester), I do not suffer very much from Blackbirds and Thrushes, nor do I grudge them their toll in return for their song. Only one bird is dangerous to my crops—that is the Starling. He threatened the utter destruction of our strawberry, raspberry, cherry, gooseberry, and currant, and some other crops. These birds are said to come to us from the marshes as soon as the young are hatched. And they come in millions; in flocks that darken the sky. Their flight is like the roar of the sea, or like the train going over the arches. Their number increases rapidly each year. I can look back to the time when there were few, and have watched their increase for forty years, till now it is intolerable (Essex). The Starling is a terror, and life around here is hardly worth living; you must have a gun always in your hand, or woe betide the cherries—they come in thousands. (Sittingbourne, Kent)."

Such reports—though doubtless exaggerated somewhat—coming from different localities, and from the people who have suffered loss, are certainly suggestive of what may happen in this country, as the Starling increases in numbers. For more than twenty years after their introduction, English Sparrows had many staunch defenders.—S. H. GOODWIN, *Provo, Utah.*

A Southern Starling Record

A pair of Starlings have wintered at 47th and Baltimore Avenue, West Philadelphia, and I am told they nested at 46th and Baltimore, on the Twaddell estate last summer.—THOMAS R. HILL, *Phila.*

Information Wanted

The undersigned desires to make studies of the home-life of the Hummingbird and Chickadee, and would be grateful for information in regard to the whereabouts of nests of these species situated within fifty miles of New York City.—F. M. CHAPMAN, *Englewood, N. J.*

Book News and Reviews

THE BIRD OUR BROTHER; A CONTRIBUTION TO THE STUDY OF THE BIRD AS HE IS IN LIFE. By OLIVE THORNE MILLER. Houghton, Mifflin & Co. 1908. 12mo. ix + 331 pages.

This is a very readable volume. There is not a word of padding, but from her own extended experience with birds and bird literature, Mrs. Miller has drawn only such material as is pertinent to her chapters on the individuality, intelligence, language, education, affections, courtship, amusements and usefulness of birds. The authority and place of publication for all quotations are given in an appendix of 285 references, a feature which in itself makes the book of much value.

With much of what Mrs. Miller says of the bird's individuality and mental equipment we are in accord, but Mrs. Miller, we fear, loves birds too well to be an altogether impartial judge of their real place in nature, by which we mean their degree of mental development and their relations to other forms of life. She presents, therefore, only such facts as tend to confirm her point of view, ignoring those which show that birds have the faults as well as the virtues of man, Her subtitle, consequently, should read "A Contribution to the Study of the Bird as I Believe Him to Be in Life," and with this modification the book may be accepted as a fair presentation of Mrs. Miller's side of the case.

Mrs. Miller's definition of a bird student is so admirable that we quote it in full: "When I speak of bird-students or of observers, I do not mean the stroller who who passes leisurely through fields and woods, pausing now and then to notice a bird more or less casually, while the bird on his part is perfectly aware of the scrutiny, and fully on guard. . . . By a bird student, or an observer, I mean one who gives hours and days and weeks and months to the closest observation of one bird or one species, watching to see how he lives and moves and has his being. . . ."—F. M. C.

THE POLICEMEN OF THE AIR. AN ACCOUNT OF THE BIOLOGICAL SURVEY OF THE DEPARTMENT OF AGRICULTURE. By HENRY WETHERBEE HENSHAW, NATIONAL GEOGRAPHIC MAGAZINE. XIX. 1908. pp. 79–118, numerous illustrations.

We have here an authoritative statement of the work of the Biological Survey by its Administrative Assistant presented as an attractively written essay on Economic Ornithology and Mammalogy, Faunal Geography, Game Protection, Bird Reservations and Wild Animal Refuges. In summing up the value of birds to agriculture Mr. Henshaw remarks: "What would happen were birds exterminated no one can foretell with absolute certainty, but it is more than likely —nay, it is almost certain—that within a limited time not only would successful agriculture become impossible, but the destruction of the greater part of vegetation would follow." This paper cannot have too wide a circulation and to any one desirous of materially aiding the cause of bird protection we suggest the donation of half a million copies of it to the National Association of Audubon Societies for free distribution.—F. M. C.

CATALOGUE OF A COLLECTION OF BOOKS ON ORNITHOLOGY IN THE LIBRARY OF FREDERIC GALLATIN, JR. New York. Privately printed, 1908. 8vo. 178 pages, 3 photogravures.

Ornithological bibliographers who pursue 'first' or 'limited' editions as keenly as one would a rare bird, will be interested in this record of 'specimens,' so to speak, in the collection of Mr. Frederic Gallatin, Jr. It contains the complete works of Audubon and Wilson, and the larger works of Dresser, Elliot, Gould and others, as well as many less elaborate but more useful publications. Such, for example, as the British Museum Catalogue of Birds. There are also complete sets of 'The Ibis' and 'The Auk,' in short, the library is one of the notable collection of bird books in this country.—F. M. C.

FOOD HABITS OF GROSBEAKS. By W. L. MCATEE. Assistant Biological Survey, Bulletin No 32; Bureau of Biological Survey, United States Department of Agriculture, Washington, 1908. 8vo. 92 pages, 4 plates, 3 colored, 40 text figures.

The methods by which the vast amounts of data given in this paper were acquired, the manner in which they are arranged, and the judgment shown in their form of presentation and illustration from the book-makers point of view, are above criticism. We have space here only for Mr. McAtee's conclusion: "The five Grosbeaks studied consume, on the average, nine times more weed seed than grain and fruit. Moreover, they devour nineteen times more injurious than useful insects. Consequently, since their subsistence is about half animal and half vegetable, their food habits are about fourteen times more beneficial than injurious."—F. M. C.

The Ornithological Magazines

THE AUK.—The April number of 'The Auk' opens with a paper by Mr. C. C. Adams on 'The Ecological Succession of Birds.' It is a philosophical treatise of considerably more volume than substance, for old ideas concerning the struggle for existence are here so tricked out in the modern finery of biological language that they fairly dazzle the eye and bewilder the brain. We can agree with the writer that "environmental evolution and biotic succession are of great value," but we confess to a feeling of doubt when he tells us "It is quite probable that one of the main conditions which prevents a more rapid advance along evolutionary lines is in a large measure due to the almost utter failure to analyze dynamically environmental complexes!"

Mr. Wm. L. Dawson has a paper on the 'Bird Colonies of the Olympiades,' rocky islets off the coast of Washington which are now set apart as bird preserves with an estimated population of 100,000; Messrs. Beyer, Allison and Kopman continue their list of the birds of Louisiana; Mr. H. G. Smith has extensive notes on the birds of Colorado; and Mr. E. Seymour Woodruff presents 'A Preliminary List of the Birds of Shannon and Carter counties, Missouri' with accompanying map. Mr. Woodruff is to be congratulated on so concise an account of the fauna of a rather inaccessible part of the state. We only regret seeing new scientific names for some of our common birds for we believe in the temporary stability attained by sticking to old names until the American Ornithologists' Union's Nomenclature Committee sanctions new ones.

More Auduboniana is furnished by Mr. R. Deane who has already been the source of much valuable historical material gleaned from old letters and documents. He also contributes an account of 'The Passenger Pigeon (*Ectopistas migratorius*) in Confinement,' which is a fitting obituary notice of the last survivors of a bird that in Audubon's time, and much later, darkened the sky in countless multitudes. The passing of the Pigeon is unique, so far as we know, in the annals of ornithology, although other birds have met or will meet its deplorable fate.

The general notes show active field work on the part of a large number of careful observers and the reviews show ornithological activity the world over.—J. D., JR.

THE CONDOR.—Volume X of 'The Condor,' which began in January, contains 56 pages in its initial number (practically a double number) replete with interesting articles and notes. Among the papers most likely to attract the attention of the general reader are Finley's Life History of the California Condor,' Part II, containing the most complete resumé of the history and range of the bird thus far published, and Dawson's description of 'The New Reserves on the Washington Coast,' Three groups of rocky islands between Cape Flattery and Copalis Rock were set aside as bird refuges by executive orders on Oct. 23, 1907 (See BIRD-LORE, IX, pp. 292–294, 1907). For these islands, designated as the Flattery Rocks, Quillayute Needles, and Copalis Rock reserva-

tions, Dr. Dawson proposes the collective term Olympiades from their proximity to the Olympic Mountains. Here are the nesting grounds of twelve species of seabirds comprising, according to an estimate made in June 1907, some 60,000 Gulls, Cormorants, Puffins, Auklets and Murres, and 100,000 Kaeding Petrels.

Under the title 'Northwestern Colorado Bird Notes,' Warren gives a list of ninty-three species of birds observed during the spring and summer of 1907; and in 'Notes from the Diary of a Naturalist in Northern California,' Ferry mentions about one hundred species observed while engaged in work for the Biological Survey, in 1905, at various points chiefly in Mendocino, Trinity, Siskiyou, Del Norte, and Humboldt counties. The nesting habits of the Western Horned Owl in Colorado are described by Rockwell and those of the Tawny Creeper in Washington by Bowles.

Dr. D'Evelyn contributes a popular account of the principal 'Locust-destroying Birds of the Transvaal'; Grinnell describes 'The Southern California Chickadee' from Mt. Wilson as a new subspecies (*Parus gambeli baileyæ*); and Willard in 'An Arizona Nest Census' gives a striking illustration of the manner in which birds sometimes breed in close proximity. At Tombstone, Ariz., in a space only 120 x 150 feet twenty-eight pairs of birds, representing ten distinct species, nested and reared one or more broods of young.—T. S. P.

Book News

Nearly every issue of 'Country Life in America' contains one or more illustrated articles on birds, but the lesson of the much-discussed 'fake' Grouse pictures, which appeared in that magazine some years ago, appears not to have born fruit, and on page 612 of the May number there are some notable examples of stuffed-bird photography. Here also we find a Yellow-billed Cuckoo labelled "Seaside Finch!"

In 'Some Records of Fall Migration of 1906' (Ninth Annual Report Michigan Academy Science, pp. 166–171) Mr. Norman A. Wood gives a synopsis of daily observations made at Portage Lake, Washtenaw county, Michigan, from September 9 to October 21.

The birds of probably no portion of South America are better known than those of the island of Trinidad, but in spite of the long-continued work of collectors in this comparatively restricted area, Mr. George K. Cherrie (Vol. I, No. 13, Science Bulletin Museum Brooklyn Institute Arts and Science), adds four species to the list of Trinidad birds as a result of field work there during March, 1907. Of these, however, two were previously known from Monos island, adjoining northwest Trididad, while *Chætura cinereicauda*, given by Cherrie as a first record for Trinidad, had already been recorded as "Common" at Caparo in the central part of the island by Chapman (Bulletin American Museum Natural History, vii, 1895, 324), on whose specimens Hellmayr (Bull. Brit. Orn. Club, XIX, 1907, 62) has since based his *Chætura cinereicauda chapmani*.

The name of Denis Gale appears so frequently in Bendire's 'Life Histories of North American Birds' that bird students will read with interest an account of the work of this "early Colorado naturalist" published by Junius Henderson in the 'University of Colorado Studies' (Vol. V, No. 1, Dec. 1907.

In the 'Museum News' of the Brooklyn Institute (Vol. 3, No. 7, April 1908) George K. Cherrie makes an important addition to our knowledge of the habits of the Giant Stork or Jabiru based on his study of this bird in Venzuela, where he tells us the bird's wings and tail feathers are in demand "as ornaments for ladies' hats."

The 'Nature-Study Review' for April (pp. 133–137) contains an article by C. F. Hodge entitled 'Nature-Study and the Preservation of American Game Birds' in which the author offers to coöperate in the artificial propagation of the Wild Turkey, Bob-White, Ruffed Grouse, Passenger Pigeon, and Prairie Hen. Professor Hodge's address is Clark University, Worcester, Mass.

Bird-Lore

A Bi-monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
Published by THE MACMILLAN COMPANY

Vol. X Published June 1, 1908 No. 3

SUBSCRIPTION RATES

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

Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

We have before referred to the studies of Noddies and Sooty Terns by Prof. John B. Watson on Bird Key, Tortuags, during the nesting season of 1908, and in the annual report of Dr. Alfred G. Mayer, Director of the Department of Marine Biology of the Carnegie Institution, under the auspices of which Professor Watson's researches were made, there appears a preliminary report of this work. The final report will appear during the year, and we will call attention here, therefore, only to Professor Watson's supremely interesting tests of the homing instincts of Noddies and Sooty Terns. Fifteen marked birds were taken from the Key and released at distances varying from about 20 to 850 statute miles, thirteen of them returning to the Key. Among these thirteen were several birds which were taken by steamer as far north as Cape Hatteras before being freed.

This experiment is by far the most important in its bearing on bird migration of any with which we are familiar. It was made under ideal conditions. Neither the Noddy nor Sooty Tern range, as a rule, north of the Florida Keys. There is no probability, therefore, that the individuals released had ever been over the route before, and, for the same reason, they could not have availed themselves of the experience or example of migrating individuals of their own species; nor, since the birds were doubtless released in June or July, was there any marked southward movement in the line of which they might follow. Even had there been such a movement, it is not probable that it would have taken the birds southwest to the Florida Keys, and thence west to the Tortugas. This marked change in direction, occasioned by the water course, which the birds' feeding habits forced them to take, removes the direction of the wind as a guiding agency, while the absence of landmarks over the greater portion of the journey, makes it improbable that sight was of service in finding the way. Professor Watson presents, as yet, no conclusions, but, while awaiting with interest his final report, we cannot but feel that his experiments with these birds constitute the strongest argument for the existence of a sense of direction as yet derived from the study of birds. With this established, the so-called mystery of migration becomes no more a mystery than any other instinctive functional activity.

'The Guide to Nature Study,' Mr. E. F. Bigelow, presents an editorial in which we quote at length: "The most difficult task that has thus far come to me in the establishing of 'The Guide to Nature' has been the returning of manuscripts, as I have had to do, even to some of the magazine's best friends. The announcement that this is to be a magazine of helpfulness, to inspire and increase an interest in nature, has brought forth an immense number of essays on what, for lack of a better term, I must call 'glittering generalities' about the beauty and suggestiveness of nature. This is to be a magazine not of preaching on 'The Beauty and Interest to be Observed in Insects,' 'The Fascinations of Ornithology,' 'Wonders of the Plant World,' or similar general essays; but each article is to have a specific statement of what has been actually seen or done, not what the author's point of view may be. . . ." If Mr. Bigelow can produce a magazine which will meet this standard (and he makes an excellent showing in his first two numbers), he will benefit his contributors as well as his readers.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

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

Bird Houses and School Children

OUR Northwest field agent, Mr. Finley, writes: "We have a great deal of interest in bird study worked up in various schools about the state. Wherever there is a manual training department, they are making many bird-houses. Superintendent Alderman at Eugene writes that they are making Eugene a bird city. The school children are arranging for a bird day a little

MANUAL TRAINING CLASS AT WORK ON BIRD HOUSES, PORTLAND, OREGON PUBLIC SCHOOLS. Photograph by H. T. Bohlman

later and they have bird-houses up in every tree and back yard in the town. At the recent annual exhibit of school work, they had 443 bird-houses on display. We have an exhibition of bird-houses now in Portland that were made by the children of the manual training department here. It is attracting much attention.

"We are doing considerable bird work in the schools by getting the children to make observations in the field and write compositions on the various phases

BIRD-HOUSES—SCHOOLBOY AT WORK
Photograph by H. T. Bohlman

of bird life. Two contests for prizes are being carried on now in this county and Yamhill County for the best written accounts of the observations made."

Good Work in a Pennsylvania School

THE annual public meeting of the Audubon Society of the Darlington Seminary was held Saturday evening. Mrs. Bye opened the program with an account of the objects of this Society, and read a letter received from Wm. Dutcher, President of the National Association, New York, acknowledging the receipt of the fee, which entitles the school to sustaining membership, also $5 for a subscription to BIRD-LORE, a delightful work on ornithology. Mrs. Ball read an instructive paper on 'The Background of Ornithology.'

Mrs. Bye then made an earnest appeal to every woman especially to con-

sider this subject and realize the destruction of bird life that [illegible] on these occasions. Every year large numbers of birds are killed to supply milliners.

The hall was appropriately decorated with greens and great quantities of violets. Birds were in evidence everywhere, a number having been painted by the art students. The birds were sold by auction at the close of the meeting, which caused much merriment and netted a neat little sum for the benefit of the Society, which will swell the annual contribution that the seminary branch makes annually to the National Association.

American Nature-Study Society

The American Nature-Study Society was organized at Chicago, Jan. [illegible], 1908, for the advancement of all studies of nature in elementary schools. The Council for 1908 consists of: *President*, L. H. Bailey (N. Y.); *Vice-Presidents*, C. F. Hodge (Mass.), F. L. Stevens (N. C.), V. L. Kellogg (Cal.), W. L. Cheat (Canada), F. L. Charles (Ill.); *Directors*, D. J. Crosby (D. C.), C. R. Mann (Ill.), S. Coulter (Ind.), H. W. Fairbanks (Cal.), M. F. Guyer (O.), O. W. Caldwell (Ill.), G. H. Trafton (N. J.), F. L. Clements (Minn.), Ruth Marshall (Neb.), C. R. Downing (Mich.); *Secretary*, M. A. Bigelow (N. Y.). The Council will publish *The Nature-Study Review* as the official organ, and send it free to members whose annual dues ($1.00) are paid in advance. Teachers and others interested in any phase of studies of nature in schools, are invited to send applications for membership; simply write, 1) name, 2) official position or occupation (for directory to be printed), 3) permanent address, and mail to Secretary, American Nature-Study Society, Teachers College, New York. For full information see the official journal for January, 1908.

A Course In Bird Study

The Cold Spring, Long Island, Biological Laboratory of the Brooklyn Institute of Arts and Sciences announces a course in bird study by Mrs. Alice L. Walter, which will treat of classification, with particular reference to the birds of eastern North America; ancestry; anatomy; adaptation of structure to environment; plumage and moults; nesting habits, geographical distribution; migration; economic value and bird protection; methods of study in the field, garden or restricted areas, together with practical suggestions for bird study in schools.

THE BARN SWALLOW

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies
EDUCATIONAL LEAFLET NO. 32

Once upon a time, all country children knew a Barn Swallow as well as they knew the chickens they fed or the cattle they drove to pasture; while, if they could only call a half dozen birds by name, this Swallow was sure to be one of them.

Now, one may live in a small town, on the outskirts of a village, or even in the real open farming country, without having the Barn Swallow as a neighbor, and only know it as it perches on the telegraph wires by the roadside, or flies in great flocks, in company with others of its tribe, to its roosts in marsh meadows in the fall migration.

Why should this be when the Barn Swallow is not widely distributed over our continent, but, being a bird of the air and feeding upon the wing, it runs fewer risks in getting its living than do the birds of the trees or ground?

You cannot tell, doubtless, and yet you may also have noticed their scarcity; so let us spend a few minutes with the bird itself, as well as the conditions that surround it.

His Family

The Barn Swallow belongs to the family of Hirundinidæ (equivalent of Swallow). There are over eighty species of these birds, quite generally distributed throughout the world, while nine are to be found at some time of the year within the borders of the United States. The Purple Martin, of the glistening purple-black coat, is the largest of our Swallows, being a trifle larger than either Wood Thrush or Catbird, while the dust-colored Bank Swallow, whose coat blends well with the bank of clay or loam in which he burrows his nest tunnel, is the smallest, being less in size than our Chipping Sparrow.

Though there is considerable variety in the plumage of these Swallows, all but the Bank Swallow show more or less metallic luster in the feathers of the back, all have pleasing mellow voices that are heard in the simplest sort of a song, which (if we except the Martin's rather plaintive notes) sound more like rippling bird laughter than an attempt at singing. In addition, they are all strong and swift of wing and weak of feet; going to prove, as one of the Wise Men puts it, that their wings have been developed at the expense of their claws, and for this reason when they are forced to perch they must choose some very slender perch, such as the telegraph wires.

In a family noted for its beauty and grace, our Barn Swallow is well able to hold his own; and his chief mark of identity, the deeply forked, white-spotted tail, tells his name, whether on the wing or at rest, so that there should be no difficulty in naming him. Then, again, as seen in the accompanying picture,

BARN SWALLOW

[illegible]

they are always upon the wing, now following some insect high in air, now skimming low over the meadows, with a motion peculiar to themselves,—a flight that resembles swimming or rowing in the air—so swiftly does the rudder-like tail keep the balance in the rapid gyrations of the body propelled by the long oar-like wings.

His Home and Country

The Barn Swallow is found not only in all parts of North America, but in Alaska and Greenland as well, and it breeds in the greater part of its range *where suitable sites* are to be found. Now, this question of nesting-sites is of great importance when we are trying to account for, at least, a local decrease in the number of these birds, and for the cause and its remedy. What is necessary in order to make this Swallow feel at home?

We associate him with the comfortable old-fashioned barns, with open rafters, doors that could not be tightly shut, and windows with many panes lacking. Here the birds nested, either in single pairs or more often in colonies, fastening their cup-shaped clay nests, made of mud balls well reinforced with straw, after the fashion of human brick-makers, to the side of the hay-loft timbers or other convenient places. This nest is usually so well lined with the various feathers picked up in the barnyard below that before use has worn it down it looks very much like some sort of furry cap turned inside out.

Now-a-days, the new farming demands that barns and other outbuildings should be tight and neat with paint, instead of covered with mossed and weathered shingles; so that, as the new replaces the old in their haunts, many a pair of Swallows drop from their sky-high wooing to find closed doors and tight roofs staring them in the face. So they move on,—Where? that is the question,—for there is no reason to suppose that there has been a greater mortality among these birds during the last ten years than in the decade that preceded it. That Barn Swallows existed before there were barns, goes without saying; consequently, if this were all, a return to a barnless condition should only be a matter of time. Caves are known to be used to a limited extent; but may it not be possible that in settled places the Barn Swallow may become even further domesticated, form the habit of coming under the roofs of the porches and piazzas of those who are not too particular about a little mud and litter, as does the Phœbe, who was originally a cliff-dweller? I have heard of several individual cases of this kind, and it would be very helpful if the readers of this leaflet would be on the lookout this summer for any unusual nesting-places of this bird, and make a report of them.

As the Barn Swallow covers a wide summer range, so does it travel far in the migrations, wintering as far south as Brazil; and, as it takes first rank among a family of birds famous for their power of flight, so is also this flight and the preparation for it a matter of great interest.

In the middle states, the Barn Swallow appears after the first week in April,—a time when the flying insects, upon which it feeds, may be expected to be plenti-

ful. Its first appearance, as well as its last in autumn, is usually in the vicinity of water, and before pairing, the nightly roost of the birds is in the low bushes of some marshy meadow. Two broods are reared in a season, the first nest being built in early May and the second in June, and on two occasions we have had a third nest in our barn in the middle of August.

The Eggs

The sets of eggs vary from four to half a dozen; the ground color is white, and they are thickly spotted with various shades of brown. The young birds at first are dull and brownish looking, much like Bank Swallows, and even the forked tail is not well developed in the very young.

Food

During the nesting season the food flight of the Barn Swallow is incessant, and, as the birds are of a sociable nature, they often go out in groups when in search of food, their happy twittering song when on the wing being one of the sounds we should miss sadly. In addition to killing myriads of mosquitos and their kin, flies are taken, small beetles and several species of winged ants.

Every one who, on a cloudy day or late in the afternoon, has stood by a mill-pond or other large body of forest water, must have noticed these Swallows skimming low over the water, taking the gnats that swarm there, upon wings that never tire. It was often the habit of boys, idle and worse, to throw sticks and other missiles at these low-flying birds, to see how many they could kill,—this game being played in the nesting as well as the flocking season. This sort of thing is, of course, mere wanton cruelty, as there can be no pretence of eating the birds. Be the cause what it may, this Swallow is decreasing rapidly here in southern Connecticut, and one day this spring, in a drive of twenty miles through the real farming country where there was a fair proportion of old-fashioned weathered barns, I saw only three small colonies of the birds.

Barn Swallows were also one of the first 'Bonnet Martyrs' among our familiar birds that attracted the attention of bird lovers, more than twenty-five years ago, to the necessity of bird protection. The breast and wings of these beautiful birds were used to such an extent for millinery that an editorial appeared in 'Forest and Stream' entitled 'Spare the Swallows.' This agitation resulted in the organization of the first Audubon Society, in 1886.

Fall Migration

In the latter part of August, the family groups break up and the general flocking begins. From this time on until their final disappearance, the Barn Swallow and his brothers, the Bank and the Tree Swallow, lend life and beauty to the autumn landscape, whether they perch upon wayside wires, pluming themselves, or whether they flock and wheel over sand dunes and meadows, as if preparing for the flight of migration, which, according to my own observation, begins, at least, by daylight.

The season of the Barn Swallows' disappearance varies doubtless according to season and locality. Mr. Chapman gives October 1–10 for its time of leaving the vicinity of New York. Here in southern Connecticut we have a good sprink-

ling of them until the third week of October, both as individual and as parts of the mixed flocks in which the Swallow family travels. Everything concerning the life of a Barn Swallow is simple, innocent and suggestive of the dawn of things, before wild nature had learned to be wily to protect itself against the wiles of man, yet this Swallow is quick of wit as of wing, where the care of its young is concerned, and I well remember the expedient resorted to by a pair of Swallows who could not coax their belated nestlings to leave, on a rafter in our hay-loft.

The brood was ready to fly one warm day in the early part of August, or the parents at least thought so, but the nestlings were perfectly content where they were; the table was good and the view unexceptional. Coaxing did not avail, so the next day the parents pushed them out on the hay, and there they stayed for two days more. But they either could not or would not fly.

The third day, the parents refused to come further in than the window-sill, where they uttered a lisping chirp, fluttered their wings and held out insects temptingly. In this way the young were lured up, and finally spent the night on the sill, cuddled together.

Next morning the youngsters were coaxed to the limbs of a hemlock, the nearest tree to the window, but one that offered perilous perching for their weak feet. Two of the four went in the green of the most steady branches, but two grasped twigs and swung overhead downward, having no strength of grip with which to retain an upright position. Under one bird were tiers of soft green branches, under the other, a stone wall.

The old birds gave a few sibilant twitters and darted almost invisibly high. In a few moments the sky was alive with Swallows, who fluttered about the bird who was suspended above the wall. To and fro they wheeled, keeping always above the little one, as if to attract its attention. The parents stayed nearer, one with a small moth in its beak, and seemed to urge an effort to secure it. Still above the wall the little bird hung motionless, except that its head was slowly drooping backward more and more, and the circling birds became more vociferous. Suddenly the parent who held the butterfly lit on the branch at the spot where the bird was clinging, while its mate darted swiftly close beneath. Whether the darting bird really pushed the little one up, or only made the rush to startle it to sudden action, I could not discover, but in a flash the deed was accomplished and the bird righted. The visiting Swallows wheeled and lisped for a minute, and then were engulfed by the sky, as mist in the air blends with the sun-light.

Questions for Teachers and Students

What is the range of the Barn Swallow? Is it common in your vicinity? Is it increasing or decreasing? What are the causes of increase or decrease? How many species of Swallows are there in the world? In North America? Wheredoes the Barn Swallow winter? When does he come in the spring? How late does he remain in the fall? Describe a Barn Swallow's nest. How is the mud gathered and carried? What does the Barn Swallow feed upon? Is it injurious or beneficial?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

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

TWO NEW BIRD RESERVATIONS

The Tortugas Reservation

Since the year the Thayer fund was established, special protection has been given to the large bird colony on Bird Key in the Tortugas, with the result that, from a very small colony of Sooty and Noddy Terns, this island now supports very large numbers of these interesting birds, as shown by the report of Prof. John B. Watson, published in December (1907) BIRD-LORE. Recently, application was made to President Roosevelt to have the entire Tortugas group set aside as a bird reservation, and, with his usual willingness to help this Association in its bird protection, he issued the following:

Executive Order

It is hereby ordered that all islands embraced within the group known as the Dry Tortugas, located in the Gulf of Mexico, near the western extremity of the Florida Keys, approximately in latitude twenty-four degrees, thirty-eight minutes north, longitude eighty-two degrees, fifty-two minutes west from Greenwich, and situated within the area segregated by a broken line upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding-ground for native birds; but the reservation made by this order is not intended to interfere with the use of these islands for necessary military purposes under the Executive Order of September 17, 1845, creating the Dry Tortugas Military Reservation, nor to, in any manner, vacate such order, except that such military use shall not extend to the occupation of the islet known as Bird Key. This reservation to be known as Tortugas Keys Reservation.

THEODORE ROOSEVELT.

The White House,
April 6, 1908.
(No. 779)

The Niobrara Reservation

In September, 1907, one of our valued correspondents wrote as follows: "The Government has in the Fort Niobrara Military Reservation, Nebraska, about 55,000 acres of sand plains and sand hills, the natural home of the Prairie Chicken and Sharp-tailed Grouse. The land cannot be used for farming purposes and only part of it can be used for grazing. There is feed for these birds the entire year, as, in the last seven years, the sunflower has taken hold in the bare places and will, in time, cover the entire reservation, affording abundant feed when the ground is covered with snow. The Niobrara river runs through the reservation and nearly every four hundred yards on the river is a cañon with a stream of water running its entire length, affording bird shelters in plum thickets, evergreen trees, willows and sumac." I suggest that this be set aside as a bird refuge.

Pursuant to this suggestion, the following application was made to President Roosevelt:

January 17, 1908.

Hon. THEODORE ROOSEVELT,
President United States,
White House, Washington, D.C.

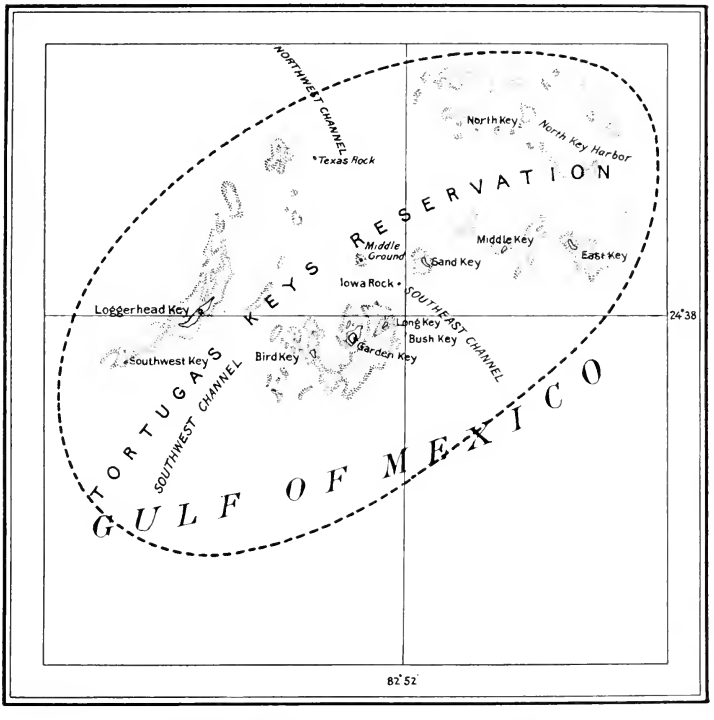
Honored and respected sir:—I enclose you herewith for your information, copies

TORTUGAS KEYS RESERVATION

For Protection of Native Birds

FLORIDA

Embracing all islands of the Dry Tortugas Group, Florida segregated by the broken line and designated "Tortugas Keys Reservation"



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
Fred Dennett, Commissioner.

of two letters regarding the Military Reservation of Fort Niobrara, Nebraska, showing the status of the birds there.

This Association was informed that the Government was to abandon Fort Niobrara, and we were going to apply to have it made into a bird refuge, but, subsequently, we were informed that it would be retained by the War Department as a Utilization Depot for the Remount System.

The object of this letter is to ask your Excellency whether it would not be possible to issue an order to prevent all shooting of birds and game on this Military Reservation, in order that it may become a bird refuge in fact. If it is not within the province of the Chief Executive to do so, will you kindly refer me to the proper officer of the War Department to whom I may take this important matter?

The 55,000 acres in question are admirably located for a breeding ground for game birds that are now fast disappearing, and such an order will in no way conflict with the proposed use of the reservation.

It is vitally important that as many reservations and harbors of refuge for game birds shall be made while we have any of them left; a few years from now will be too late.

You are so heartily in sympathy with our work that I do not hesitate to apply to you for help in this special case.

Very truly yours,
WILLIAM DUTCHER,
President.

The application was promptly and favorably acted upon by the Chief Executive, as detailed in the following correspondence and official notice.

The White House, Washington
April 1, 1908.

My dear Mr. Dutcher:—Referring to your letter of recent date, I beg to send you for your information the enclosed

NOTICE!

OFFICE OF CHIEF QUARTERMASTER,
DEPARTMENT OF THE MISSOURI, U. S. ARMY,
Omaha, Nebraska, March 5, 1908

By Order of the President of the United States.

All persons are hereby prohibited from Shooting, Trapping, Catching, or taking, dead or alive, by any device, on the

Fort Niobrara Military Reservation in Nebraska,

any Sharp or Pintail Grouse, Prairie Chicken, Quail (Bob White), Wild Ducks or Geese of any variety; any Woodcock, Snipe, Wilson-Snipe, Jack-snipe, Plover, Curlew, Virginia-rail, King-rail, Sora, Doves, Meadow-larks, Robins, or any birds of any species; any Beaver, Otter, Jack-rabbit, Cotton-tail-rabbit, Grey, Fox or Red squirrels, or any other game or wild animals; or any Fish, of any species.

THE VIOLATION OF THIS, WILL SUBJECT OFFENDERS TO ARREST AND PROSECUTION IN THE UNITED STATES COURTS.

D. E. McCARTHY,
Major and Quartermaster, U. S. Army,
Chief Quartermaster

report from the War Department, with accompanying copy of a notice in regard to the killing of game on the Fort Niobrara Military Reservation.

Sincerely yours,
WM. LOEB, JR.,
Secretary to the President.

War Department, Office of the Chief Clerk, Washington. March 30, 1908.

My dear Mr. Loeb:—In connection with previous correspondence concerning the communication of Mr. William Dutcher, President of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, in regard to the preservation of game on the Fort Niobrara Military Reservation, I transmit, herewith, copy of public notice prohibiting the shooting, trapping, or catching of wild game, etc., on said reservation, with the information that copies of the same have been posted at various places on and around the reservation.

Very respectfully,
JOHN C. SCOFIELD,
Chief Clerk.

Hon. William Loeb, Jr.,
Secretary to the President.

Bird Refuges

The importance of bird refuges and reservations is so great that every opportunity is taken to secure them, and, to that end, a five years' lease has just been taken of an island, containing thirty-six acres, in the Connecticut river, near Portland. In a future number of BIRD-LORE we hope to present a good photographic view of this new bird refuge and a short account of it from Mr. John H. Sage, one of our members.

Negotiations are now pending, looking to the purchase of a marsh island containing some five hundred acres, on the New Jersey coast. This marsh contains the only colony of Laughing Gulls left in that state. If negotiations are successfully concluded, a diagram and account of the purchase will be furnished. Funds are being raised by school children.

Field Work

Our field agent, Mr. H. H. Kopman, is now conducting a bird survey along the west coast of Florida. He started from Pensacola late in April, and will make a critical examination of the Florida coast as far south as the mouth of the Caloosahatchee river, for the purpose of locating all of the bird colonies in the territory covered. It is hoped that this survey will enable us to make application for several more bird reservations.

Our Northwest field agent, Mr. William L. Finley, accompanied by Mr. H. T. Bohlman, photographer, is now conducting a bird survey through northern California and southern Oregon, which will extend as far east as Klamath Lake, in order to discover whether there are any large colonies of birds that need special protection. It is hoped that some new reservations may be established in this territory, based on the results of the expedition now going on. If the survey is concluded in time, Messrs. Finley and Bohlman will re-visit the Three Arch Rocks Reservation on the Oregon coast, to compare the present condition of the colonies of birds there with the numbers found when they visited the islands in the summer of 1904, since which date this reservation has received special warden protection.

Mr. Herbert K. Job will make a visit, extending over a period of three weeks, to the Breton Island Reservation and the Louisiana Audubon Islands, and, possibly, to the Tern Islands Reservation, about the first of June. His trip will be made on the patrol boat, 'Royal Tern,' in charge of Captain Sprinkle and his assistant.

In a future number of BIRD-LORE we expect to have a comprehensive report of the condition of the bird colonies at the several places visited, together with some good photographs of the birds.

Reservation News

Warden Kroegel, at Pelican Island, Florida, reports that the Pelicans have had a good season so far; about 1,500 young

Pelicans being raised, and there still being 400 occupied nests.

Warden Small, of Old Man Island, Maine, reports the largest colony of Herring Gulls on the island that he has ever seen, and also twenty-five pairs of Eider Ducks. Our colony of these birds bids fair to become a very large one in time.

WARDEN SPRINKLE AND PATROL BOAT "ROYAL TERN"

Warden Eastgate, of Stump Lake Reservation, reports: "We have not had so many Ducks in the sloughs on the prairie as are here now; Mallards and Pintails have good-sized nests of eggs. Think there will be a large number of local birds breed this year. Pinnated and Sharp-tailed Grouse are everywhere; the Pinnated much thicker than ever before."

The above reports show the very great value, in actual results secured, of bird refuges. More of them are needed.

Legislation

VIRGINIA.—The legislative results secured during the present season have been, in the main, rather disappointing; principally, however, because we were unable to secure all of the improvements in bird and game laws that were desired. In only one instance, however, was any decided setback experienced. This was in Virginia, where the legislature amended the model law by removing protection from Owls, Hawks, Eagles, Blackbirds, Ricebirds, Bobolinks and Doves, and amended the game law by removing all protection from Wilson's Snipe and Robin Snipe. Such legislation is retrograde in character, and it is hard to understand how legislators of intelligence are willing to enact such statutes in view of the present general

knowledge of the economic value of birds. This is a case where prejudice seems largely to have been a compelling force. For instance, why should the Ricebird be placed in the unprotected list in Virginia, where no rice is now, nor has it ever been grown. When the Bobolink becomes the Ricebird on its southward migration, it is found in the same territory where Rail are hunted, and it is likely that the Rail shooters instigated the removal of protection from the Ricebirds in order that these birds might be shot without restriction; and, as there was little knowledge of or interest in birds among the legislators, this bad legislation was enacted.

MISSISSIPPI. — The Legislature adjourned without the bill introduced by this Association having come to a vote. It was favorably reported by both the House and Senate Committees, and was on the calendar for final passage when the Legislature adjourned. Field Agent Kopman reports that the time he spent upon the bill was not wasted, as the Governor will recommend its consideration at the next special session of the Legislature.

SOUTH CAROLINA.—A bill to improve the game law of this state was introduced by the Audubon Society, but, owing to the short session ot the Legislature—only forty days—it was not enacted before adjournment. The bill will be reintroduced promptly at the next session of the Legislature in January, 1909.

MARYLAND.—No changes of moment were made in the Maryland bird and game laws. A large number of local bills were introduced, but failed of passage.

NEW JERSEY.—A strenuous fight took place for the January first water-fowl and shore-bird law in this state, but it was only partially successful. Every possible legitimate pressure was brought to bear to have this necessary law adopted, but the large majority of the citizens of the state who wished to have this law adopted were again over-ruled by the small minority.

There were several important gains made, as follows: Summer Woodcock shooting is prohibited. The open season for Ducks, Geese, Brant, and Swan is from October 15th to January 1st in ten of the twenty-one counties in the state. Unfortunately, these are the ten counties where there is very little water-fowl shooting. In the other eleven counties, which include the entire coast, the open season for Ducks and Swan is from November 1st to March 15th, and for Geese and Brant from November 1st to March 25th. While this shortens the seasons materially, yet it still permits the killing of these fast-disappearing birds after January 1st.

There was no change in the shore-bird law, and they may still be killed in May and June; which is, in view of their rapidly decreasing numbers, an outrage.

A resolution was introduced and adopted in the Senate, appointing a commission with four members to consider the subject of the game laws of the state, with orders to report a proper law at the next session of the Legislature. The commission consists of William J. Harrison, Senator from Ocean county; Everett Colby, Senator from Essex county; Prof. Alexander Hamilton Phillips, of Princeton University; George Batten, President of the Association of New Jersey Sportsmen.

NEW YORK.—The entire bird and game law of the state was revised at the suggestion of Governor Hughes. The revision was made by the President of the Forest, Fish and Game Commission, and the bills known as the Cobb-Mills bills were adopted by the Legislature almost unanimously.

While there were several amendments to the revision bills which were strongly urged by this Association, yet only one of them was adopted, namely, "There shall be no open season at any time for Wood Duck." This was an important and valuable amendment, and New York is the third state to adopt a close season for this species of wild fowl.

The hunting-license feature was adopted by the state. This is a very decided gain

and goes far to allay the feeling of disappointment among the members of the Audubon Society and the New York members of this Association. It will provide a large fund for the use of the game commission in protection and education, and will be a very potent factor in suppressing illegal shooting and enabling the game wardens to identify violators of the law. Hereafter, any one found hunting must have his license upon his person at the time, and must show it to any officer *or other person* on demand. The fact that a hunter has not a license on his person constitutes a violation of the law.

The amendments that the Audubon Society of New York and this Association desired, were as follows: To stop the shooting of Brant on January first, making the law for this species of wild fowl the same as for Ducks, Geese and Swan, and also to prohibit the possession of wild fowl, except during the open season, instead of for sixty days thereafter; to make uniform open seasons throughout the state for shore birds; to give protection to the valuable species of Hawks, and to prohibit the sale of wild birds' plumage, irrespective of whether said bird was captured or killed within or without this state.

Commissioner Whipple was urged to admit these suggested and necessary amendments in the revision bill, but he was unwilling to hazard the passage of the bill as originally introduced, providing, among other things, the license feature, and he refused to have them made a part of the revision. He, however, is in sympathy with the proposed amendments, and has promised to give his support at the next session of the Legislature to a further effort for their adoption.—W. D.

MASSACHUSETTS.—Early in the legislative session in Massachusetts, we were put on the defensive by a bill, introduced by Senator Treadway, of Berkshire, to abolish the commission on fisheries and game. This bill was defeated in committee, and the petitioners were given leave to withdraw.

A bill was introduced by the State Board of Agriculture for the purpose of establishing the position of State Ornithologist. The Ornithologist of the Board of Agriculture has been an unpaid official. This bill establishes an official ornithologist with a salary and an appropriation for travelling expenses, apparatus, etc. The bill passed both Houses without opposition, and was approved by the Governor on March 19th.

House Bill No. 1,321 (new draft), protecting gray squirrels at all times until October, 1910, passed and received the signature of the Executive on March 23.

A local statute (House, No. 510), prohibiting the use of boats in the pursuit of wild fowl in certain Edgartown waters, was passed, and, on March 31, was approved by the Governor.

The attempt to secure a law giving deputies or game wardens the right of search without a warrant, which has failed for so many years, was renewed this year. This privilege is essential if the bird and game laws are to be enforced. The bill was reported by the Committee on Fisheries and Game, but was defeated overwhelmingly in the House. The commissioners on fisheries and game consulted with the legislative committee and a new draft was framed and substituted, which passed both Houses. This bill (House, No. 1,279) was signed by the Governor on April 20th. It gives the officers power to request those suspected of violating the law to exhibit any bird, fish, or other animals in their possession. Upon the refusal of the suspect to comply with the request, the officer may arrest without a warrant. The passage of this Act was largely due to the persistency of Dr. George W. Field, chairman of the commissioners on fisheries and game.

The scarcity of upland game birds gave rise to a sentiment in favor of a close season of one year or more and several close-season bills were introduced. Finally, a bill (House, No. 505), introduced by the Massachusetts Fish and Game Protective Association, was passed as a compromise measure, and on April 24 it received the signature of the Governor.

A bill repealing the open season on introduced Pheasants, was championed by Senator Treadway, and was finally passed in a new draft (Senate, No. 330), which gives land owners engaged in propagating Pheasants the right to shoot a limited number of birds on their own premises. This received the Executive's approval May 1.

Two bills to require and provide for the registration of hunters were introduced. These bills were rather hastily drawn, and contained some unnecessary provisions. Representatives of the Commissioners on Fisheries and Game, the Patrons of Husbandry, the State Board of Agriculture, the Massachusetts Fish and Game Protective Association, and the National Association of Audubon Societies, met with some interested members of the House and agreed upon a re-draft combining the best features of the two bills. This bill (House, No. 1,386), which had the active support of the Massachusetts Audubon Society, was reported after a favorable hearing by the legislative committee on fisheries and game, passed both Houses and was signed by the Governor on May 2. The bill passed the House of Representatives by a large majority, largely owing to the good work of Representative Leslie K. Morse, of Haverhill; but it was so strenuously opposed in the Senate by Senator Treadway and others that the most earnest efforts of the friends of the bill were required to secure its passage. The opposition came largely from the western part of the state. Senators Abbott, Stevens, and Jenney were among the strong friends of this bill.

House, No. 507, a bill intended to prohibit all killing of shore birds and wild fowl from January 1 to September 1, was introduced by Representative Gates, of Westboro, and was supported by the Massachusetts Audubon Society. No bill for the protection of birds has excited so much interest as this. The hearing was the largest held before the legislative committee on fisheries and game, and many people appeared in favor of the bill who could not be heard. Among those who spoke in its favor were many sportsmen and bird protectionists, including Mr. Dutcher, President of the National Association, and Honorable Herbert Parker, former Attorney-General of Massachusetts. But a strong opposition developed, coming mainly from market men, Brant shooters and Duck shooters, and as the majority of the members of the legislative committee on fisheries and game were residents of cities and towns on or near the shore, the influence exerted by gunners and market-men on these members prevented favorable action on the bill and the committee reported reference to the next Legislature. A fight against this report may be made in the Senate. The end is not yet.

The most important legislation secured thus far this year, is the bill for the registration of hunters, which provides money for the enforcement of the game laws and bird laws, and makes possible the enforcement of the license laws against non-resident and alien hunters.

Rhode Island.—Much time was spent by your agent in Rhode Island in the attempt to induce various organizations and individuals to support legislation for the protection of birds. All interested agreed that a bill for the registration or licensing of hunters was the greatest immediate need, for the state appropriates only a few hundred dollars for the enforcement of the game and bird laws. In consequence, the enforcement of the law is lax. A bill (Senate, No. 60), was introduced by the Senate committee on the Judiciary after a large and favorable hearing, but it was laid on the table in the Senate. It appears that a majority of the Senators preferred, instead, a bill for a close season of one year on upland game birds. It was argued that it would be more effective protection to stop all inland shooting for one year than to restrict and regulate shooting by registration and license. It was also argued that, should a close season be established, there would be little revenue from hunting licenses, because there could be no legal shooting of upland game.

The close-season bill (Senate No. 76) passed the Senate and, at this writing, is in the hands of the House Committee on the Judiciary.

A bill was introduced in the Senate to establish a close season on Ducks, Brant, Geese and Swans, from January 1 to September 1. Another was introduced to protect shore birds from January 1 to August 1. These bills have been favorably reported in the Senate and have passed that body. They are, at present, in the House. Another Senate bill (No. 53), intended to repeal the law establishing a bounty on Hawks, Owls and Crows, is still in committee. The adjournment of the Legislature is expected soon. All these bills, with the exception of the bill for the protection of wild fowl, are in accord with the recommendations of the Bird Commissioners of the State of Rhode Island.

EDWARD HOWE FORBUSH.

Another Reason for Wild Fowl Protection

The following is quoted from the Third Report of the Provincial Game and Forest Warden of the Province of British Columbia: "Ducks have again been noticeable by the smallness of their numbers, and the quantity shot has not even compared well with last year, which was a very poor year. Weather conditions were certainly unfavorable during the early part of the season, but lately this cannot be the reason. Year after year, the number of Ducks visiting our coasts get less and less, and, at the present rate of decrease, it simply means that in a few years no Ducks will come at all. There is little doubt that there is too much shooting. Every year there is a greater demand for ducks in the market, and every year there is a larger increase in the number of men out with guns; day after day it is one incessant fusilade, and a Duck no sooner appears on the scene than he is shot at, no matter what distance he is away. Then, too, shooting at night is still carried on in places, and this does more harm than anything else.

The only solution of the question is establishing sanctuaries for the birds to rest in and the adoption of the tag system, whereby the limit of Ducks killed by market hunters could be enforced."

A Good Example and Good Advice

"I enclose check for five dollars as my first annual fee to the National Association, of which I would like to be made a sustaining member. I am very much interested in the preservation of those species of our birds that are nearest to extermination, and I wish to urge that no effort be spared to give such birds as the Willet and Least Tern absolute protection all the time, so far as it is within the power of the Society to do so. A species once lost can never be restored, and we have none to spare."

An Active Game Warden

W. L. Giddings, a deputy in Ohio, says: "I have made a raid on the milliners of Columbus, and have convicted four firms for having aigrettes in their possession; three of which were fined $25 apiece, with costs, and one $50, with costs. They say they will not handle them any longer, and have cancelled their orders with New York firms for all bird plumage. I also have three cases in Cincinnati. I will give the other cities a visit as soon as possible, as the New York wholesalers are drumming trade out here at present. I also seized all aigrettes found in the above places of business, condemned them and turned them over to the State."

The Value of the Nighthawk

Recently the stomach of a Nighthawk that was shot in Texas was examined by the experts in the Biological Survey at Washington, and in it were found 300 mosquitoes. Any bird that will destroy such a large number of mosquitoes at one meal is worth to any locality at least $1 a day, and any person who is willing to kill a Nighthawk should be arrested

and confined in a county jail for at least thirty days. A recent case of vandalism has been called to the attention of this Association: A salesman in one of the western states was traveling in a buckboard and, to amuse himself, he carried a 32-caliber rifle with him, with which he shot Nighthawks from the fences at the roadside. One evening he boasted that in a twenty-mile drive that day he had killed thirty-four Bull-bats, not one of which had he taken the trouble to pick up, but allowed them to lie where they had fallen. If each of the Nighthawks had eaten at one meal 300 mosquitoes, they would have destroyed 10,200 of these vicious insects, and the least punishment that could be wished for such a vandal is that the whole number of mosquitoes could prey upon him at one time.

The Destruction of Plume-Birds*

It is probable that a bill will shortly be introduced into Parliament with the object of preventing the destruction of wild birds for their plumage. A conference on the subject, called by Lord Avebury, was held on March 13, when representatives were present from the British Museum (Natural History Department), Royal Society, Linnæan Society, Zoological Society, Selborne Society, and the Royal Society for the Protection of Birds. The general provisions of the proposed bill were practically agreed upon.

The Destruction of Lapwings

The National Association of Audubon Societies urgently calls the attention of the officers of the Royal Society for the Protection of Birds to the imperative necessity for some action to be taken to stop the killing of large numbers of Lapwings in England and their export to the United States to be served in the hotels and restaurants of the large cities. Recently, 18,000 Lapwings were found in one cold-storage house in Jersey City, N. J.; such an abnormal drain on a single species of birds cannot be maintained for any great length of time without the extinction of the species.

What is needed as much as anything at the present time is an International Bird Protective Association, in order to present to the proper authorities of all the leading countries of the world the necessity for the suppression of the inter-country traffic in the wild birds of each country.

*From 'Bird Notes and News' organ of the Royal Society for the Protection of Birds, London, England. Spring number, 1908.

AN INTERESTING AND VALUABLE COMPETITION

The President of the National Association feels that he is barred from entering into the competition proposed below by The Royal Society for the Protection of Birds from the fact that he spends a goodly portion of his time in procuring legislation for the protection of birds, and his knowledge of the subject would be a serious handicap to other competitors. He, however, hopes that some of the bright young Americans who are known to be interested in the legal aspect of bird protection will enter the competition and will succeed in bringing to America the gold medal of the Royal Society.

Regulations for International Competition, 1908

The Gold Medal of The Royal Society for the Protection of Birds (Great Britain) and Twenty Guineas are offered for the best Essay or Treatise on "Comparative Legislation for the Protection of Birds." The essay should take the form of an epitome of the legislation in force in the various countries of Europe (Great Britain excepted), together with a comparison of such legislation with: (*a*) The law and regulations in force in Great Britain.* (*b*) The proposals of the International Convention for the Protection of Birds Useful to Agriculture, signed at

*Acts of 1880 (43 & 44 Vict., c. 35), 1881 (44 & 45 Vict., c. 51), 1894 (57 & 58 Vict., c. 24), 1896, (59 & 60 Vict., c. 56), 1902 (2 Edw. VII., c. 6), 1904 (4 Edw. VII., c. 4), 1904 (4 Edw. VII., c. 10), copies of which may be obtained from the Society, 3, Hanover Square, London.

Paris on March 19, 1902. (*c*) The model law of the Audubon Societies adopted by certain of the United States of America. (The comparisons to be made in the order as set out above.)

In comparing enactments of Legislatures, the following points should be dealt with in the order named, and may be accompanied by suggestions and criticisms: 1. The close time appointed for all wild birds, or its limitation to certain species. 2. The protection afforded (*a*) to birds throughout the whole or part of the year; (*b*) to what birds; (*c*) to nests and eggs; (*d*) to special areas or sanctuaries. 3. The prohibition of the sale or possession of protected birds, eggs, or plumage. 4. The schedules of "useful" or "injurious" birds published by any government or under protective laws, and the basis upon which such lists are and should be drawn up and published. 5. The local option allowed for the adoption or modification of the law of a country within its several states, provinces, districts, or municipalities. 6. The working of the existing laws for the preservation of wild birds, and their enforcement by the police and courts, nature of penalties, forfeiture of nets, guns, etc. 7. The permission to take specimens for public museums. 8. The injury caused by the wholesale destruction of migratory birds when on migration. 9. The comparative economic value attached to particular species of birds in different countries.

Essays, which may be written in either English, French, or German, should consist of not less than 10,000 nor more than 25,000 words. They should be printed or typed on one side only of foolscap paper (22 x 32 meters), and be sent, postpaid, not later than December 31, 1908 (with the writer's name and address in a sealed envelope) to the Honorable Secretary the Royal Society for the Protection of Birds, 3 Hanover Square, London, England. Unsuccessful essays will be returned after the award has been made, but the Society reserves the right of printing the whole or part of any of the essays sent in.

Judges will be appointed by the Council of the Royal Society for the Protection of Birds, and their decision as to the merits of the essays must be regarded as final.

The writers of essays adjudged first, second and third, may be recommended by the Judges for election as Honorary Life Members of the Society.

The Gold Medal will be presented at the Annual General Meeting of the Society, in March, 1909.

By order of the Council,

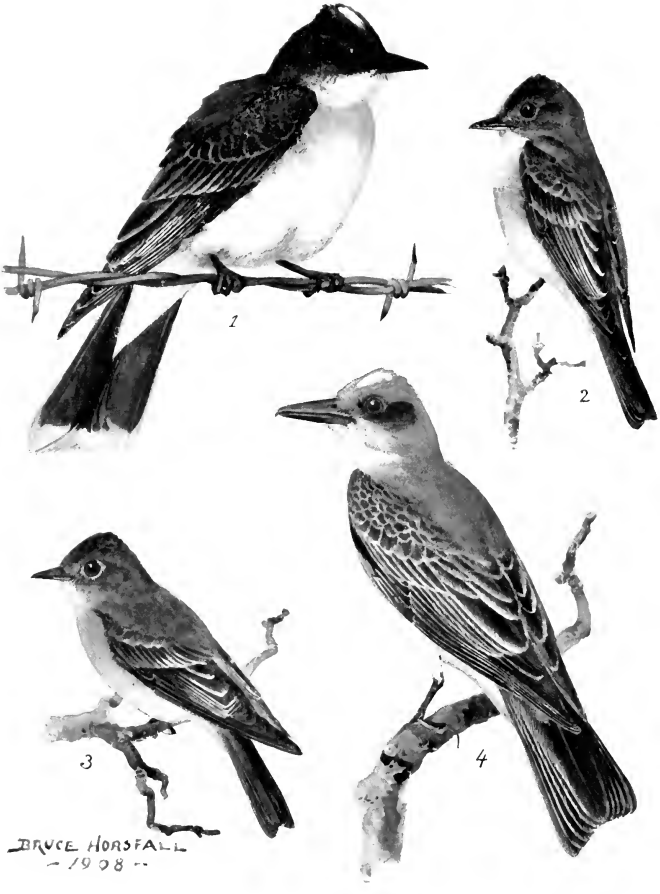
(Signed) MONTAGU SHARPE,
Chairman.

FRANK E. LEMON,
Hon. Secretary.

3 Hanover Square, London, W.,
January 24, 1908

Helpful Audubon Work

A strong local Audubon Society has been organized at Riverside, Cal., and affiliated with the state Society. Francis Cuttle is president, A. N. Wheelock, S. C. Evans and Dr. Louise Clarke, vice-presidents, Leonard Coop, secretary and L. C. Waite, treasurer. The board of directors include the county and city school superintendents, the mayor of the city, the president of the board of education and other leading men and women of the city. Game- and song-bird protective conditions in Riverside county have greatly improved, and the strongly favorable public sentiment now made effective by organization, promises to practically stop such violations as have been too common in the past. Among the first acts of the new Society will be an effort for a city ordinance prohibiting sling-shots and air-guns, and an appeal to the county supervisors for an ordinance prohibiting all shooting on the public highways. A very efficient and active county game warden is now regularly employed, and the County Game Protective Association, of which W. A. Correll is president, and which is working along advanced protective lines, has closely co-operated with the State Audubon Society during the past year, in the interest of both game- and non-game-bird protection.



1. Kingbird
2. Wood Pewee
3. Western Wood Pewee
4. Gray Kingbird

(one-half natural size)

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. X JULY—AUGUST, 1908 No. 4

The Fish Hawks of Gardiner's Island

By FRANK M. CHAPMAN

With photographs by the author

SINCE the publication of Alexander Wilson's 'American Ornithology' the Fish Hawks of Gardiner's Island have figured in the literature of ornithology, and it is characteristic of their delightful home, that, owing to the preserving influences of insular life, the birds are apparently nearly as abundant there today as they were a hundred years ago.

The volume (Vol. V) of Wilson's work in which the Fish Hawk is treated appeared in 1812. In it the Mr. Gardiner who was then proprietor of the island, is quoted as saying that there were at "least three hundred nests of Fish Hawks that have young. . . ." Today I estimate the number at between one hundred and fifty and two hundred, but the difference between these figures and those of 1812 may be less real than due to errors in estimate. In any event, Gardiner's Island holds the largest Fish Hawk colony in this country—possibly the largest in the world—and the conditions under which many of the birds nest offer exceptional opportunities for a study of their habits.

In BIRD-LORE for December, 1903, I gave a brief account of some studies made on Gardiner's Island early in June 1901, and in July 1902, and this is now supplemented by the results of observations made on June 17–20 of the present year.

Mr. Gardiner tells me that the Fish Hawks arrive on the island March 20, and depart on September 20. That the same birds return year after year to the same nest is commonly believed, and in at least one instance this belief was proven true by Mr. Gardiner's grandfather who placed a metal band on the tarsus of a Fish Hawk which for many seasons occupied a certain nest.

Mr. Gardiner does not confirm current statements to the effect that the Fish Hawks repair their nests in the fall; but in the spring there is much activity in nest-building even by birds whose homes are apparently already habitable. The birds gather sticks from the ground and, as I noticed in June last, they also break them from the trees by flying at or dropping on branches and grasping them with their talons. Eel grass is a favorite nest-lining and the birds

often fly about with four- or five-foot lengths of this grass streaming out behind like a long tail.

While most of the Gardiner's Island Fish Hawks select normal nesting sites in trees, about ten pairs of birds place their nests on the ground, and these ground-nesting birds as a rule build on the beach. All the pictures here shown

THE OBSERVATION BLIND IN POSITION

are of these beach nests. Some, it will be observed, are small while others hold several cartloads of sticks. Such variation is in part individual and in part due to the age of the nest. In the BIRD-LORE article before referred to I have expressed the belief that these nests are built by birds which have not inherited the tree-building instinct common to their species, but which, nevertheless, succeed in rearing a family because of the absolute protection afforded by their insular environment. I do not observe that the number of beach nests has increased since 1901 and the ground-nesting habit does not, therefore, appear to be hereditary.

The love of Fish Hawks for their nest-site has often been commented on and there are many illustrations of it on Gardiner's Island. Nests built in cedars in time often break the tree, when a new nest is constructed on the ruins of the old one. In one instance, a tall tree standing alone in a field had held a Fish Hawk's nest for as many years as any one could remember. During a storm it fell and the nest was scattered over the ground. The birds then attempted

to build a new nest on the nearly horizontal trunk of the tree at its junction with the stump, to which it was still slightly attached; but as fast as the sticks were brought they fell to the ground a few feet below where a pile of them bore testimony to the birds' failure to comprehend the new conditions by which they were confronted.

FISH HAWK RETURNING TO NEST

Eggs are not laid until seven or eight weeks after the birds' arrival from the south; a delay which, in view of the abundant (formerly, at least) food supply it is difficult to explain. The period of incubation is said to be four weeks, June 2, being the earliest date on which I have found young.

The young are in the nest about six weeks. So far as I have observed, they are under the immediate care of the female who is almost constantly with them while the male occupies a perch near by. While both birds whistle shrilly when one is near the nest, it is exceptional for them to make any show of defending their young by actual attack. I have never been threatened by the beach-nesting birds, but one which occupied a tree dove at me repeatedly when I climbed to the nest, coming uncomfortably near at each swoop.

FISH HAWK RETURNING TO NEST

The young are reared on the restricted diet of their parents, and so far as my observations go the fish is captured and brought to the nest by the male, usually after he has

FISH HAWK RETURNING TO NEST

satisfied his own appetite by eating part of it. Incidentally it may be remarked that the Gardiner's Island birds secure most of their fish from the numerous fish traps which, during the summer, are set about the island. They sit patiently on one of the poles to which the net is attached until opportunity offers, when they jump down to the water for their prey,—a far less interesting method of feeding than the thrilling plunge from the air.

FISH HAWK ALIGHTING ON NEST
Note the great length of the 'egs

Until the present year I had not seen the Fish Hawk feed its young; when, after several hours' waiting, the act was seen many times in two different nests. It is explained by the accompanying photograph in which the female, after tearing small pieces from a fish in the nest, offers it to her young, usually turning her head on one side while the young birds pick the food from her bill.

Young Fish Hawks are models

in behavior. Their obedience is instant and enduring. At the complaining alarm whistle of the parent, they squat flat in the nest and hold their position, possibly for hours, or until the old bird is reassured and permits them to raise their heads. Unlike young Terns, Gulls, or Skimmers, they make no effort to move when touched, doubtless because they have no means of escape. They therefore not only look, but act like dead birds. One can turn them on their backs or place them in any position; putty-like they will remain, their only movement being a rare wink of the half-closed but staring yellow-brown eye. When, however, the parent's suspicions are allayed, and the young are permitted to move, they are often surprisingly alert and active.

FISH HAWK ALIGHTING

The nest held three young (compare picture of feeding scene), which are squatting low and are not visible

The beach nests are exceptionally well situated for the purposes of bird photography, and three of these nests furnished the subjects of my recent studies.

FISH HAWK FEEDING YOUNG

These were conducted from the umbrella blind which I find indispensable to success in any effort to gain an insight into the home-life of birds. Both nests and blind were conspicuous objects on the beach and, as in many other instances, it proved to be important to have a coöperator whose departure, after I had entered the blind, apparently reassured the owners of the nest within thirty

FISH HAWK LEAVING NEST
An Audubon Society Warning Notice at the left

feet of which the blind was placed. To enter the blind alone, is to invest it with your personality, when the bird will not return to its nest until the impression created by your presence has become dimmed. At the best the blind itself is regarded with much suspicion, and although the bird may return to her nest before your companion is two hundred yards away, she regards the blind intently, peering with a sinuous motion of the neck as though her gaze would penetrate the cloth itself. Some birds are satisfied more easily than others and after half an hour accept the blind without further question. Others keep it under close surveillance for two hours and during this time the slightest sound or movement of the cloth is greeted with the complaining alarm whistle, which, if the cause be continued, arises to a shrill crescendo.

In studying the life of the second nest here figured, the blind was entered at eleven o'clock, when the male was seen flying about with a bit of fish which he was evidently about to bring to the nest. The female returned to the nest within ten minutes after my companion left me, but it was not until 12:50 that she ceased to regard the blind with more or less alarm. During this time the male flew about rapidly with the bit of fish still grasped in his left foot, or perched

on the ground a hundred yards away. At 12:50 the female dropped all caution, and the previously often repeated alarm note was replaced by a wholly different call, a high, rapidly uttered *tweet-tweet-tweet*, which proved to be a food call to the male. At one o'clock, in response to it, he came to the nest, but the blind was too near, and, taking wing almost as he alighted, returned to his perch on the beach. Again the female uttered her food call and the young were now permitted to move about the nest. Finally the male came, but, as before, his fears overcame him and he departed quickly, taking the fish with him. Three times this performance was repeated, and on the fourth, the female, losing patience or prompted by hunger, attempted to take the fish from his foot with her bill, when, as the male arose, the fish was pulled from his grasp and dropped over the edge of the nest to the sand at its base. This was a catastrophe with which neither bird was prepared to cope. The male made no move to get another fish, but went back to his perch in the meadow. The female repeated her food call more loudly and the young apparently asked for food, but no experience had fitted her to deal with this chain of events and the fish at the foot of the nest was left where it fell.

YOUNG FISH HAWKS FEIGNING DEATH

The Return of the Snowy Heron

By HERBERT RAVENEL SASS

THAT the Snowy Heron (*Egretta candidissima*) would ever reëstablish itself in its former breeding places on the South Atlantic coast north of Florida seemed, until very recently, a possibility so remote as to be unworthy of serious consideration. Twenty-five years ago, it is true, this species was common in the South, breeding in thousands on small islands or 'hammocks' in the salt marshes—a race so strong in numbers, so beautiful, and so harmless to man that none could foresee the doom which was so shortly to overtake it. Yet, when once Fashion had decreed that the Snowy Heron's delicate nuptial plumes be used to ornament women's hats, this loveliest of all our marshland birds was in a very short time almost blotted out of existence. Along this coast—which for excellent reasons shall be nameless—where formerly it nested in such multitudes, it was considered, up to a few weeks ago, practically, if not absolutely, extinct.

On May 15, 1908, while exploring certain marshes and sea-beaches in quest of breeding colonies of birds, I was informed of a certain small island or hammock in the marsh which was a favorite resort of white and blue 'Cranes.' Supposing that these 'Cranes' were merely Little Blue Herons—an abundant species—in the immature and adult phases, this information seemed of slight importance; but, as the hammock referred to lay close to the river down which our launch was proceeding, we decided to land and have a look at it. The river, which is here a broad tide-water stream, is bordered on either side by wide areas of salt marsh; and presently, when we were still some miles distant, the skipper pointed out the island where he had seen the 'Cranes.' Watching it idly as the launch sped swiftly down the river, we could see a few Herons —some white, some dark in color—flying about above the dense bushes covering the island. At that distance, however, we could distinguish nothing to arouse my suspicions that the birds were other than Little Blue Herons; and it was not until we had left the launch and were ploughing our way through the gummy 'pluff' mud toward the 'hammock'—which was situated in the marsh about one hundred and fifty yards from the river—that I suddenly realized that we had discovered a strong breeding colony of the supposedly vanished Snowy Heron, and that the dark birds which I had thought were Little Blues were in reality Louisiana Herons.

To describe in detail my first visit to this heronry is inadvisable for several reasons. In the first place, we discovered later another heronry where a still larger colony of Snowies is established; and moreover I made several subsequent visits to the two hammocks which were in some respects more satisfactory than my first visit. It seems best, therefore, to describe collectively the results of my various trips to these most interesting localities.

The two little islands or hammocks upon which we found the Snowy Herons

breeding resemble each other quite closely. Both are surrounded by marsh or 'pluff' mud and both are clothed with a dense cover of bushes or low trees, few of them more than fifteen feet in height. The first hammock discovered has an area of about three acres, while the second is somewhat larger. The smaller hammock is completely covered by a thick growth of 'sparkleberry' bushes, yuccas, and palmettoes, while on the other island the yuccas and palmettoes are absent or inconspicuous and the sparkleberries form almost impenetrable clumps or thickets surrounding a number of small grass-grown, open spaces.

The bird population of these two little marsh-land strongholds is remarkably large considering the small size of each hammock. The Herons observed belong to five species—Snowy, Louisiana, Little Blue, Green, and Black-crowned Night Heron; and in addition hundreds of Boat-tailed Grackles, a few Red-winged Blackbirds, a pair of Carolina Doves, and a few Nonpareils are rearing their young in close proximity to the nests of their larger long-legged neighbors.

Disregarding the smaller birds and considering only the Herons, we estimated the population of the smaller hammock at between six hundred and seven hundred, and of the larger at not less than a thousand. On each island the Louisiana and Green Herons outnumber the other species, though, especially on the larger island, the Night Herons are well represented. We saw only a few Little Blues—almost all of them immature birds whose white plumage was flecked here and there with slate.

All these, however, are common species, mentioned only because we found them breeding in close association with their rare kinsman, the subject of this article. The number of Snowies observed at the smaller heronry we estimated at between one hundred and one hundred and fifty, while the number seen at the larger island was hardly less than two hundred. These figures, however, may be either considerably too large or too small, for actual counting was an impossibility.

At each island, as we approached, the birds would rise from the bushes in successive waves or clouds, so rapidly that, by the time we had counted forty or fifty Snowies among their number, we would have to give up the attempt. At the larger heronry, the Snowies were very wild, and after flying about in the air for a few minutes, most of them betook themselves out into the marsh and alit about a quarter of a mile away. At the other island they are much tamer—though not nearly so tame as the graceful Louisianas which would pass and repass close above our heads or alight on the tops of the bushes less than twenty feet from us. The Night Herons also were rather shy, most of them raising high in the air and sailing about well out of range. The scene was always one of great animation. Hundreds of birds were continually wheeling about above the bushes, Louisianas and Greens for the most part, but with a good sprinkling of Snowies and Night Herons. Others fluttered from place to place, while others again perched on the tops of the bushes around us, eyeing us with the greatest

curiosity. The Snowies, so far as I observed, remained absolutely silent, but the Louisianas constantly uttered their queer calls, sounding like the quacking of ducks, while the Green and Night Herons were especially noisy, and the scores of young Grackles flitting from bush to bush were never silent for a moment.

Among the hundreds of nests on each island we found only one which we could say positively belonged to a pair of Snowy Herons. The nests and eggs of the Snowy, Louisiana and Little Blue are practically indistinguishable from one another; and I was not aware of any differences by which we could separate the downy young of these three species, I was unable to form any estimate of the number of Snowy Heron nests on either island. Moreover, the parent birds would not visit the nests while we were nearby, although they often perched on the tops of the bushes in which the nests were situated. On all three of my visits—May 15, 22, and 29—I saw many nests which contained young birds covered with yellowish white or cream-buff down; and some of these must undoubtedly have been young Snowies, though most of them were probably Louisianas. Probably, also, some of the nests which contained eggs still unhatched belonged to the Snowies. It is surprising, however, that we found no Snowies among the nestlings which had passed beyond the downy stage. I can explain this only on the assumption that the Snowies laid their eggs later than the Louisianas and Little Blues and that none of their young had begun to acquire feathers at the time of my last visit on May 29. In only one instance did we find evidence which clearly proved a nest to be the property of a pair of Snowies. This nest was found on the smaller island on May 15 and upon it sprawled a dead Snowy Heron with one unbroken egg beneath the lifeless body.

Definite measures are being taken in coöperation with the National Association of Audubon Societies, to ensure the protection of these colonies against plume-hunters. Owing to their situation, the problem of safeguarding the two little islands should not be a difficult one; and there seems to be good reason to hope that the Snowy Heron will succeed in reëstablishing itself along the coast.

GRAY KINGBIRD
Photographed on Ragged Island, Bahamas, April, 1907,
by George Shiras, 3d

A Little Blue Heron Rookery

By M. HARRY MOORE

ABOUT nine miles northeast of DeFuniak Springs, Florida, is a beautiful body of water called Lake Cassidy. It is fringed by magnificent cypress trees draped in long "moss,"—a border necessarily narrow on account of the abrupt sloping of the banks upward to the surrounding forest of the stately long-leaved pines. A small portion of the northern part of this lake is being filled up by nature and is now in the intermediate stage between lake and swamp. Many shrubs grow here in the shallow water, as well as an abundance of white and yellow pond-lilies, and other water plants. In the shallower places among the bushes, sphagnum has transformed it into a bog. It is in this marshy part that the Little Blue Herons nest during the warm days of spring and summer. Having visited the place three years before, and knowing that it was a favorite place for these Herons, we decided to visit the lake again and make a fuller study of their early nesting habits, for it was late in July when I was at the rookery before.

On May 1, 1908, we started and reached the lake a short time before sunset. We saw several little Green Herons and a few Little Blues flying about. However, it was too late to go to the rookery, for it was nearly a mile distant from the landing. We concluded to wait and take an early start next morning. So, we built a camp-fire, and disregarding the "redbugs," or "chiggers," we lay down to sleep on the ground near the fire. As day was dawning over the lake we were making ready, and by the time it was light we were on our way in a small boat. We had not gone far when we observed a large flock of ducks near the center of the lake, but they took flight before we got near enough to identify them. After our effort to get near the ducks, we once more started for the rookery. A little farther on the way, our attention was attracted by a large alligator floating ahead, but it sank out of sight as we approached.

As we got near the rookery, we could see the Herons flying in every direction,—some flying in toward their nests and others leaving for their feeding-grounds. Seeing that it was almost impossible to reach the rookery by boat, we landed and walked around to the point of the shore nearest it. From here we decided to wade to the rookery which was about one hundred yards distant. This was not easy, for the water was about three and one-half feet deep, and the bottom was not firm, and all the time we were half expecting to see an alligator rise to the surface. We reached the rookery in safety, however, and found what more than repaid us for our trouble.

Here, in a dense thicket of shrubs of the Heath Family (*Leucothoe racemosa*), less than a half-acre in extent, we found two or three hundred nests of the Little Blue Heron. The bushes were standing in water about two feet deep, and the nests were in the bushes about three or four feet above the water. The nests were built of twigs, being little more than mere platforms of sticks. They

were very close together, being only a few feet apart. In the nests were found both eggs and young. The eggs were blue, and four was the prevailing number in each nest. A very few sets of five were noticed. May 2 seemed to be the very height of the hatching period. Probably a third of the eggs were hatched, and none of the young were more than a few days old on this date. The young have

YOUNG LITTLE BLUE HERONS

considerable white down on them when hatched. After examining the rookery to our satisfaction, we made a few kodak pictures of the nests and their contents. During our little stay, the young kept up an almost continuous noise which reminded one of the squawks of the old birds, although not nearly so loud. On our approach the parent birds had taken flight and had retreated to the cypress trees in the edge of the lake. A few, however, kept flying over the rookery uttering their alarm notes. A few white (immature) Herons were among the adults, and a few that were changing from the immature plumage to that of the adult.

Almost as soon as we left the place, the old birds returned and settled down as though nothing had occurred.

On May 9 we again visited the rookery and found nearly all of the eggs hatched, and many of the young large enough to climb up the bushes, and this they do by the use of their bills as well as their feet. Another visit on May 15 found many of the young birds sitting up on top of the bushes..

In the vicinity surrounding the rookery, is an excellent place for marsh-loving birds, and among its tenants were Red-winged Blackbirds, Least Bitterns, Purple Gallinules, Florida Gallinules, and a pair of Wood Ducks. Two or three species of Swallows were flying about. A Cormorant and several Anhingas flew over that part of the lake while we were there. We found several nests of the Red-winged Blackbird, some containing eggs and some young. A Least Bittern's nest was also found in the bushes, and a nest of the Southern Parula Warbler in the long 'moss' (*Tillandsia*) on a cypress tree.

The Herons approach their nests by flying as much as possible over water. They come in flying rapidly, and alight near their nests,—then with a few peculiar squawks they approach the nest and feed their young, and then fly away in search of food again. After a great deal of watching, we failed to see the adult Herons feeding in the lake. This, we thought, was strange because to us the immediate vicinity seemed to afford good feeding grounds. We heard lots of frogs, and saw bream, or sunfish, swimming in the shallower parts of the lake.

The young Herons have one habit in common with the vultures,—although not so well developed,—and that is, when handled or disturbed too much they sometimes eject the contents of their stomachs. On account of this habit, we learned that their food consisted of frogs, fish, and crayfish.

There are two birds which cause the Herons a great deal of annoyance. One is the Kingbird which will pursue a Heron every time one comes close to his perch, and he gives him quite a chase, the Heron squawking and doing his best to get away. Another tormenter is the Red-winged Blackbird which will angrily chase a Heron if it gets near his nest, and this the Herons can hardly avoid doing in going from and coming to the rookery.

These Herons are not nearly so plentiful at this place as they were three years ago. Either some have changed their nesting places, or they are decreasing in numbers,—probably the latter.

The Migration of Flycatchers

FIFTH PAPER

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

With Drawings by Louis Agassiz Fuertes and Bruce Horsfall

KINGBIRD

The Kingbird winters south of the United States and comes north in the spring across the Gulf of Mexico, in a path much less than a thousand miles wide, whence it ranges northeast, north and northwest, until it reaches the northern limit of the breeding range, which extends for nearly three thousand miles in width from Newfoundland to British Columbia.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Atlantic Coast—			
Northern Florida	11	March 24	March 14, 1907
Southeastern Georgia	8	March 29	March 27, 1906
Southern South Carolina	12	April 5	March 28, 1878
Raleigh, N. C.	17	April 18	April 13, 1900
Asheville, N. C. (near)	4	April 24	April 22, 1891
Variety Mills, Va.	20	April 25	April 17, 1888
New Market, Va.	13	April 25	April 18, 1896
White Sulphur Springs, W. Va.	8	April 24	April 18, 1896
French Creek, W. Va.	5	April 24	April 19, 1891
Washington, D. C.	23	April 29	April 18, 1896
Renovo, Pa.	12	May 2	April 26, 1903
Caldwell, N. J.	10	May 5	April 28, 1885
Southeastern New York	13	May 5	April 29, 1891
Alfred, N. Y.	17	May 9	May 2, 1887
Ballston Spa., N. Y.	12	May 8	May 1, 1890
Jewett City, Conn.	17	May 3	April 26, 1895
Portland, Conn.	7	May 5	May 2, 1894
Hartford, Conn.	10	May 7	May 3, 1906
Hadlyme, Conn.	14	May 7	April 26, 1896
Providence, R. I.	8	May 8	May 3, 1905
Eastern Massachusetts	18	May 5	April 30, 1896
Randolph, Vt.	7	May 10	May 5, 1890
St. Johnsbury, Vt.	12	May 10	May 5, 1894
Milford, N. H.	7	May 8	May 4, 1904
Hanover, N. H.	7	May 9	May 3, 1889
Southwestern Maine	25	May 9	May 3, 1904
Sherbrooke, Que.	4	May 17	May 15, 1904
Scotch Lake, N. B.	7	May 17	May 13, 1902
Chatham, N. B.	11	May 21	May 12, 1907
Pictou, N. S.	6	May 22	May 16, 1894
Prince Edward Island	11	May 23	May 19, 1894
Godbout, Que.			May 27, 1891
Mississippi Valley—			
Southern Louisiana	9	March 25	March 19, 1894
Southern Mississippi	11	March 29	March 24, 1890

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Mississippi Valley—			
Sewee, Tenn.	6	April 19	April 17, 1899
Eubank, Ky.	12	April 19	April 12, 1889
St. Louis, Mo.	6	April 19	April 15, 1888
Odin, Ill.	9	April 19	April 16, 1896
Brookville, Ind.	7	April 25	April 18, 1889
Waterloo, Ind.	13	April 20	April 22, 1896
Wauseon, Ohio	11	April 27	April 20, 1889
Oberlin, Ohio	11	April 27	April 22, 1902
Petersburg, Mich.	12	April 30	April 23, 1885
Southwestern Ontario	22	May 3	April 28, 1905
Ottawa, Ont.	19	May 9	May 3, 1896
Keokuk, Iowa	12	April 25	April 23, 1903
Central Iowa	26	April 26	April 22, 1897
Chicago, Ill.	16	May 1	April 24, 1897
Southern Wisconsin	23	May 2	April 20, 1896
Lanesboro, Minn.	8	May 7	April 24, 1891
Kerrville, Texas	5	April 26	April 22, 1902
Northern Texas	12	April 17	April 10, 1885
Manhattan, Kans.	8	April 24	April 21, 1891
Onaga, Kans.	15	April 25	April 19, 1891
Syracuse, Nebr.	8	April 26	April 25, 1900
Rapid City, S. D.	3	May 9	May 8, 1906
Larimore, N. D.	7	May 17	May 10, 1904
Aweme, Manitoba	14	May 15	May 10, 1904
Reaburn, Manitoba	7	May 16	May 12, 1900
Indian Head, Saskatchewan	6	May 18	May 14, 1906
Osler, Saskatchewan			May 17, 1893
Southeastern Colorado	3	May 6	May 3, 1905
Denver, Colo. (near)	7	May 11	May 7, 1889
Cheyenne, Wyo.	3	May 11	May 9, 1889
Terry, Mont.	7	May 16	May 13, 1905
Columbia Falls, Mont.	4	May 21	May 15, 1896
Rathdrum, Idaho	7	May 27	May 20, 1900
Edmonton, Alberta (near)	4	May 24	May 21, 1903
Southern British Columbia	4	May 24	May 16, 1906
Fort Simpson, Mack.			June 1, 1904

FALL MIGRATION

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Southern British Columbia	3	September 6	September 8, 1889
Columbia Falls, Mont.			September 11, 1895
Aweme, Manitoba	8	September 5	September 17, 1907
Ottawa, Ont.	10	August 26	August 29, 1897
Southwestern Ontario	7	September 2	September 9, 1891
Oberlin, Ohio	7	September 9	September 17, 1906
Wauseon, Ohio	5	September 10	September 28, 1894
Chicago, Ill.	6	September 6	September 25, 1895
Central Iowa	13	September 8	September 30, 1888
Onaga, Kans.	11	September 7	September 11, 1905
Bonham, Texas			October 17, 1885
Biloxi, Miss.			October 20, 1905

FALL MIGRATION, continued

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Southern Louisiana	4	October 3	October 23, 1903
Prince Edward Island	7	August 31	September 4, 1899
Scotch Lake, N. B.	3	September 6	September 16, 1901
Southwestern Maine	14	September 5	September 12, 1900
Durham, N. H.	3	September 7	September 11, 1900
Providence, R. I.	7	September 4	September 12, 1899
Renovo, Pa.	6	September 6	September 15, 1901
Berwyn, Pa.	4	September 5	September 10, 1904
Washington, D. C.	5	August 20	September 23, 1905
French Creek, W. Va.	3	August 27	September 20, 1890
Raleigh, N. C.	5	September 1	September 18, 1893
Frogmore, S. C.			September 19, 1886
Tallahassee, Fla.			September 11, 1904

South of the United States the arrival of the first Kingbird has been noted in southern Mexico September 3, in southeastern Nicaragua September 8, and in northern Colombia September 19.

WOOD PEWEE

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Atlantic Coast—			
Whitfield, Fla.			April 4, 1903
Coosada, Ala.			April 9
Southeastern Georgia	3	April 15	April 14, 1905
Southern South Carolina	3	April 15	April 14, 1889
Raleigh, N. C.	13	April 23	April 21, 1888
Asheville, N. C. (near)	6	April 29	April 27, 1902
Variety Mills, Va.	18	May 3	April 23, 1889
French Creek, W. Va.	5	May 4	April 25, 1889
Washington, D. C.	21	May 5	April 29, 1900
Waynesburg, Pa.	4	May 5	May 2, 1892
Beaver, Pa.	5	May 8	May 6, 1902
Renovo, Pa.	11	May 9	May 3, 1899
Germantown, Pa.	4	May 14	May 12, 1889
Englewood, N. J.	12	May 17	May 10, 1900
Southeastern New York	10	May 16	May 10, 1890
Ballston Spa., N. Y.	11	May 18	May 15, 1900
Hartford, Conn.	14	May 18	May 14, 1899
Hadlyme, Conn.	8	May 19	May 11, 1900
Providence, R. I.	10	May 21	May 16, 1899
Eastern Massachusetts	20	May 18	May 12, 1899
Randolph, Vt.	8	May 24	May 19, 1896
Southwestern Maine	12	May 22	May 14, 1903
Montreal, Canada	6	May 23	May 18, 1889
Scotch Lake, N. B.	5	May 27	May 23, 1902
Prince Edward Island			May 26, 1887

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrivals	Earliest date of spring arrival
Mississippi Valley—			
Bay St. Louis, Miss.			March 25, 1906
Southern Louisiana	9	April 10	March 27, 1897
San Antonio, Texas (near)	9	April 20	April 9, 1890
Northern Texas	7	April 26	April 18, 1885
Helena, Ark.	13	April 22	April 12, 1897
Athens, Tenn.	6	April 25	April 23, 1902
Eubank, Ky.	10	April 28	April 26, 1892
St. Louis, Mo.	6	April 29	April 28, 1885
Brookville, Ind.	6	May 7	May 4, 1892
Waterloo, Ind. (near)	8	May 8	May 5, 1905
Oberlin, Ohio	10	May 6	May 2, 1905
Plymouth, Mich.	6	May 10	May 6, 1896
Petersburg, Mich.	10	May 10	May 6, 1887
Southwestern Ontario	15	May 14	May 8, 1884
Keokuk, Iowa	10	May 9	May 4, 1902
Central Iowa	20	May 10	May 3, 1905
Chicago, Ill.	15	May 12	May 5, 1885
Lanesboro, Minn.	6	May 15	May 10, 1887
Onaga, Kans.	15	May 19	May 9, 1902

FALL MIGRATION

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Aweme, Manitoba			August 30, 1901
Lanesboro, Minn.	5	September 14	September 23, 1888
Central Iowa	17	September 19	September 28, 1898
Chicago, Ill.	6	September 21	October 3, 1885
Southwestern Ontario	8	September 20	September 27, 1905
Oberlin, Ohio	7	September 19	September 27, 1899
Wauseon, Ohio	9	September 26	October 4, 1890
Waterloo, Ind.	9	September 24	October 1, 1889
Eubank, Ky.	7	October 9	October 15, 1888
Athens, Tenn.	5	October 17	October 22, 1902
Southern Louisiana	7	October 24	November 2, 1900
Prince Edward Island			August 25, 1889
Scotch Lake, N. B.	3	August 25	September 13, 1906
Montreal, Canada	4	September 6	September 11, 1887
Southwestern Maine	8	September 15	September 27, 1898
Renovo, Pa.	6	September 22	September 29, 1902
Englewood, N. J.			September 28, 1885
Washington, D. C.	5	October 4	October 12, 1906
French Creek, W. Va.	3	October 9	October 13, 1891
Raleigh, N. C.	7	October 9	October 13, 1891
Punta Rassa, Fla.			November 23, 1885

The Wood Pewee begins its southward migration so early that it was seen in southeastern Nicaragua August 21, 1892, and arrived August 21, 1889 at San Jose, Costa Rica.

WESTERN WOOD PEWEE

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Southern California	5	April 19	April 15, 1907
Southern Arizona			April 27, 1885
Southern British Columbia	4	May 17	May 9, 1889
Beulah, Colo	4	May 17	May 15, 1906
Columbia Falls, Mont	5	May 27	May 20, 1897
Aweme, Manitoba	7	May 27	May 22, 1904
Red Deer, Alberta			May 22, 1892
Skagway, Alaska			May 3, 1899

FALL MIGRATION

Some dates of the last seen are: Aweme, Man., September 13, 1902; Columbia Falls, Mont., September 9, 1895; Beulah, Colo., September 5, 1903; Southern California, September 30, 1894.

FEMALE NIGHTHAWK
Photographed by Warren C. Tudbury, May 26, 1906, at Golden's Bridge, N. Y.

Notes from Field and Study

Observations on a Tame Loon

A Loon, or Great Northern Diver, was received at the New York Aquarium in September, 1907, where it was kept in one of the large salt-water pools for about a month, when it was sent to the Zoölogical Park. It came from the United States Fisheries Station at Woods Hole, Mass., where it had been kept all summer in a large salt water basin adjoining the wharf piers.

The Aquarium pool, which is twenty-eight feet long and three feet deep, contained at the same time a collection of dogfish (*Squalus*), skates and sculpins. Although the Loon was supplied with an abundance of live killifishes, its activity led it to strike frequently at the large fishes, and it succeeded in swallowing one of the sculpins with a head larger than its own. The other sculpins were too large to be swallowed.

Although supplied with a dry platform on which to rest, it never left the water of its own accord. Its breast plumage showing a tendency to become water logged, the attendants removed it each evening to a box of dry excelsior, where it spent the night. It never *sat up* in any way, either on the platform or in the box, always resting on its breast except when it rolled upon its side for the purpose of preening its under plumage. When in the water the bird frequently turned almost on its back when dressing its breast feathers. Rolling over on one side, with one foot still submerged, it swam slowly in a circle during the process, the other foot being held entirely clear of the water.

In exploring the bottom of the pool, or in pursuit of killifishes, it swam under water *with the wings closely folded*—never in use, and it spent much time swimming on the surface *with the eyes submerged*, watching the large fishes below. The Loon frequently shook the water from its feathers by rising to a vertical position, as Ducks do, and flapping the wings, while its feet beat a lively tattoo in maintaining the position.

Although apparently full grown, the characteristic black neck-ring had not yet appeared.

Its only note was a low murmur when the attendants approached. The bird never made any attempt to fly and was quite tame, not attempting to bite when handled.

In referring to the bird's ability to sit erect or stand on its feet, Audubon writes of a Loon wounded by his son, that "it immediately rose erect on its feet and, inclining its body slightly forward, ran or stumbled, rose again and getting along in this manner, actually reached the water before my son." He says that the female, frightened from her nest, "makes at once for the water in a scrambling and sliding manner, pushing herself along the ground."

Audubon's remark on the female Loon corresponds with my own observation on the wild bird leaving its nest.

Montagu says of Loons, "in swimming and diving only the legs are used and not the wings." While Audubon writes: "having myself seen Loons pass and repass under boats . . . and propel themselves both with their feet and their half-expanded wings, I am inclined to believe that when not wounded and when pursuing their prey they usually employ all the limbs."—C. H. Townsend, *New York City*.

When Doctors Disagree

Ornithologia Faceta

About May 12, 1908, I had the good fortune to secure three specimens of a bird whose identity was unknown to me. These specimens were taken on lower Broadway, New York City, a locality peculiarly rich in puzzling forms. To establish the position of the species in our avi-fauna, and to place the specimens

where they would be most available to science, I sent one to each of the three leading museums of the country, at the same time requesting information from three of our leading ornithological experts, located at the respective institutions to which the specimens were sent.

It may be of interest to here state that the birds were at this time active and in full song, the latter having a marked individuality.

I quote replies in the order in which they were received: "The specimen presented by you to the Museum arrived safely and we are greatly indebted for same. As it is undoubtedly a new species and genus, I have named it *Bowdishia americana*. The specific name being on account of the striking red, white and blue coloration of its wings. If you do not think the specimen will fade, we will be glad to put it on exhibition provided you will present us with a suitable case."

"After serious consideration I do not think that I care to hazard an identification of your bird We have the song, it is true, but species of this group are so involved that sexual and seasonal plumages are absolutely necessary for correct determination. It is obviously one of the *Christmas volans* group, probably of the genus *Fakir iferus*, but further than this I cannot go."

"The bird you send for identification proves to be an *Umslophagus Angelicus*, in very fresh plumage. It is a very rare bird in these parts, and appears only at distant intervals.

"Some birds, as you know, portend rainy spells, or hard winters, or even famines, but not so with the *Umslophagus*. He is a sure sign of extraordinary upheavals in the American Ornithologist's Union Check-list, with a special leaning toward ripping the nomenclature of the Owls and Sparrows wide open. I judge from the date of the arrival of the *Umslophagus*, that the upheaval will occur in the month of July."

In view of the variance of opinion indi-

BOWDISHIA AMERICANA

cated by the foregoing letters, I leave it to the learned reader to decide for himself the position which the discovery should occupy in our avi-fauna, also what its advent may portend to American ornithology.—B. S. BOWDISH, *New York.*

A Pair of Blue-gray Gnatcatchers That Moved Their Nest

On April 5, 1908, I found a pair of Blue-gray Gnat-catchers building their nest. They had begun it upon a dead branch of a mulberry tree about twelve feet from the ground. Both male and female worked at the nest, always giving a sharp note while at work. In gathering lichens from the trees, the little bird would catch a piece with its bill and then flap its wings and pull until the lichen came off. The work on the nest continued for ten days, at the end of which time there seemed to be a lull, and the nest was apparently abandoned.

Two days later I heard them at the nest again, and noticed that they seemed to be tearing it to pieces. I found that they were moving it to a nearby thicket—a distance of about fifty yards. By watching them, I soon discovered that they were rebuilding the nest in a small oak, only about three and one-half feet from the ground. Here they completed it and covered it with lichens, so that it was almost impossible to be noticed. The female began laying eggs, but after she had laid three, something began to take the eggs one by one. Although she continued to lay an egg each day for four days, she at last became discouraged, and the pair quit the neighborhood.—ANGUS MCKINNON, *De-Funiak Springs, Florida.*

A Humming Bird's Toilet

On May 30, 1908, I was walking up Eagle Rock Canon, just north of this city, collecting botanical specimens. I had stopped near a small pool in the little rivulet and, while standing there, a Hummingbird darted down to the water. Her movement was so swift that I could not tell whether she entered the water or not, but she flew up and perched on a small twig, not more than six feet from my face, and began preening herself. First, with her bill, she would arrange her back and tail feathers, and then, standing on one foot, she would arrange the feathers of her neck and head, continuing clear down to the tip of her bill. Then with the other foot she would do the other side. This continued some two or three minutes, when the male flew up and they darted away together. I was so very close that I could distinctly see the whole interesting performance.—GEO. L. MOXLEY, *Los Angeles, Cal.*

Bird Notes From Chicago

CARDINAL.—A pair of Cardinals in Sheridan Park built a nest in the latter part of May, but the young were killed by our noted lake breeze soon after they hatched. Last year, Cardinals were very common in this vicinity. There was one pair in Sheridan Park and one in Argyle Park. On one day I also saw two more pairs at the Desplaines River, west of Dunning, while I think there were five or six at Riverside. There are still three or four at Riverside, owing to the protection given them, but the others, I fear, have been killed by boys and gunners.

TUFTED TITMOUSE.—On February 8 I saw five Tufted Titmice at Riverside. They were quite tame and we watched them for some time. On April 11, I again saw three at the same place, the last record of them that I know of. They were seen between these two dates several times by other members of the E. W. Nelson Society.

ROBIN.—Frank C. Gates and William Gerberding, individually, saw a Robin in Graceland Cemetery on January 1, and I saw two at the same time on January 20.

SONG SPARROW.—On January 18, Dr. H. S. Pepoon and I saw three Song Sparrows near Bowmanville. Song Sparrows never wintered with us before, to our knowledge.

PRAIRIE HEN.—April 12, Dr. H. S.

Pepoon and I saw a flock of about twenty within a mile of the city limits, where, I dare not say, for fear some gunner will get word of it. They seemed to be in a wild state, but they may have been introduced, for all I know.

CHICKADEES.—Chickadees have been remarkably scarce here this year. Glencoe, Millers (Ind.), Willow Springs and Half Day have been the only places I have found them.—NEWTON L. PARTRIDGE, *Chicago, Ill.*

A FLICKER'S NEST SITE

A Flicker's Home

"Shooting on these premises is strictly prohibited under penalty of the law." A wise Demarest (N. J.) Flicker has selected a home which is at this date (June 8) occupied, and which bears the above legend in lieu of a name-plate on the door. Such seeming sagacity should be rewarded by success in the rearing of a large and happy family.—B. S. BOWDISH, *Demarest, N. J.*

Two Sparrow Episodes

A friend in this town, who is a close observer of birds and is thoroughly reliable, has just told me the following incidents. A Robin was gathering angleworms in the lawn, and had filled her bill with a fine bunch of them for her little ones in the nest near at hand. Several English Sparrows were hopping about close to her, evidently intent on trickery. As the Robin lifted her head and was getting ready to fly, one Sparrow at her right, and another in front, were chirping and threatening in a way to divert her attention; then, just at the right moment, a third Sparrow darted up to her from the right side and a little in the rear and nabbed the bunch of worms, pulling them all from her beak. Poor Madam Robin stood looking puzzled, as if she scarcely knew what had happened.

My informant also says that the Purple Martins, as a rule, seem to be quiet and peaceably inclined just as long as the English Sparrows keep their distance. But more than once he has seen one of the Martins turn like a flash on a Sparrow that was getting too bold and coming too near, seize it by the feathers of the nape, give it a twist and a snap, and send it whirling to the ground. This will help to explain how the Martins manage to hold their own against the Sparrow clans.—LEANDER S. KEYSER, *Canal Dover, Ohio.*

A Correction

The notice of a Prothonotary Warbler in Central Park, in the June number of BIRD-LORE gave, by *my* mistake, the date of identification as May 8, instead of May 4. The bird was not seen after May 5.—ANNE A. CROLIUS, *New York City.*

Book News and Reviews

PRELIMINARY REPORT OF AN INVESTIGATION ON THE SEASONAL CHANGES OF COLOR IN BIRDS. By C. WILLIAM BEEBE, American Naturalist, XLII, 1908, pp. 34-38.

In continuing his important and novel studies of the causes affecting the colors of birds, Mr. Beebe gave himself this interesting problem, "What is the cause of, or what factors determine, the seasonal change in the males of the Scarlet Tanager and the Bobolink?"

To give Mr. Beebe's answer would be to reprint his paper, which, as a preliminary report, is largely an abstract of his experiments. Briefly, male Scarlet Tanagers and male Bobolinks in full plumage and in full song were confined in cages where the supply of light was gradually diminished and the amount of food gradually increased. The birds began at once to gain in weight, and to lose in activity, and shortly to discontinue singing, and when the time for the fall molt arrived not a feather was shed.

"From time to time a bird was gradually brought into the light for a week or two and meal-worms were added to its diet. This invariably resulted in a full resumption of song. Even in the middle of winter a Tanager or a Bobolink would make the room ring with its spring notes, and with this phenomenon was correlated a slight decrease in weight."

Early the following spring Tanagers and Bobolinks which were gradually brought under normal conditions molted as wild birds of the same species do, into spring breeding plumage. Wild Scarlet Tanagers, however, change at this season from olive to scarlet, and male Bobolinks exchange a plumage resembling that of the female to the familiar black, white and buff. With Mr. Beebe's birds, however, the fall molt having been suppressed, the change in the Tanager was from scarlet and black to scarlet and black, and in the Bobolink from black, white and buff to black, white and buff.

Mr. Beebe's experiments are still in progress and for the present he attempts to make no attempt to explain the significance of the results already achieved.—F. M. C.

DESTRUCTION OF THE COTTON BOLL-WEEVIL BY BIRDS IN WINTER. By ARTHUR H. HOWELL. Circular No. 64, Bureau of Biological Survey, United States Department of Agriculture.

Mr Howell's investigations have raised the number of species of birds known to feed on the cotton-boll weevil from twenty to fifty-three. Of these, thirty species prey upon the weevil during the winter, when, Mr. Howell remarks, it is far more important to kill them than in summer, since their death at this season "prevents the production of a very numerous progeny during the early summer. Brewer's, Rusty and Red-winged Blackbirds, Meadowlarks, Savanna, Vesper, Field, Swamp, White-throated and Fox Sparrows, American Pipits, Carolina, Bewick and Winter Wrens, Tufted Titmice and Carolina Chickadees are among the more important winter-bird enemies of the weevil.—F. M. C.

CASSINIA: PROCEEDS DELAWARE VALLEY ORNITHOLOGIST'S CLUB, XI, 1907, 8vo. 98 pages, 4 half-tones.

'Cassinia' for 1907 opens with one of Witmer Stone's admirable biographical sketches of America's early ornithologists, the subject being Adolphus L. Heermann, whom we know chiefly through the two birds which were named for him—Heermann's Song Sparrow and Heermann's Gull. Mr. Stone's remark that the practice of naming animals and plants after collectors and students is justified by the perpetuation of the memory of men who might otherwise be forgotten, meets with our hearty approval. It is the naming of species after men who are not even remotely connected with or interested in scientific pursuits that has brought this practice into disrepute.

Other papers in this number relate more directly to the region to which the club devotes its special attention; Cornelius Weygandt writing of 'Some Birds of Brown's Mills, N. J., Spencer Trotter on 'Type Birds of Eastern Pennsylvania and New Jersey,' Charles J. Pennock on 'Bird-life of the Indian River Country of Delaware,' and Chreswell J. Hunt, presents 'A Pensauken Diary.'

Members of the club at forty-three different localities contribute data on the spring migration of 1907, which are compiled by Mr. Stone in the usual valuable annual report of this subject.

The abstract of the proceedings at Club meetings shows that from January 3, to December 19, 1907, sixteen meetings were held with an average attendance of twenty-three members; the number ranging from fifteen to thirty-five. Judged by this record the D. V. O. C. continues to be the most active local ornithological society in this country.—F. M. C.

List of the Birds of the New Haven Region. Compiled by a Committee of Freeman F. Burr, Chairman, Philip L. Buttrick, Alfred W. Honywill, Jr., Dwight B. Pangburn, Aretas A. Saunders, Clifford H. Pangburn. Advisory Committee, Louis B. Bishop. Bulletin No. 1 New Haven Bird Club, May, 1908. 8vo. 32 pages.

This list is a good example of the results of coöperative bird study. Various members of the committee describe the more favorable places for birds and bird students about New Haven and then give us a briefly annotated list of 217 species of birds "that can be seen during any year in the immediate vicinity of New Haven." This list is based mainly on the observations of the members of the committee, and being designed to represent the present status of the species treated, should be of practical value to bird students in the region covered. A nominal list of rare or extirpated species is appended. Without in any way reflecting on the accuracy of the work of the members of the committee, we congratulate them on their good judgment in securing the coöperation of their fellow-townsmen as an Advisory Committee.—F. M. C.

A Catalogue of the Birds of Prince Edward Island. By John MacSwain, Proc. and Trans., Nova Scotian Institute, xi, pp. 570-592.

This list is based mainly on the field work of its author from 1895 to 1907, during which time he has identified 203 species of birds.

Under the head of "Species Reported by Other Writers," 13 species are added from Macoun's 'Catalogue of Canadian Birds,' and four from Bain's "Birds of Prince Edward Island." While it might destroy the record of personal achievement, it would add greatly to the reference value of the list if these 17 additional species had been included in it. Mr. MacSwain does not appear to be familiar with Dwight's 'Summer Birds of Prince Edward Island' (The Auk, X, 1893, pp. 1-15), a list of 80 species, seven of which are not contained in the body of his paper, but are included in quotations from other authors.

It is hoped that the edition of reprints of Mr. MacSwain's paper is large enough to supply local students with this useful check-list.—F. M. C.

The Ornithological Magazines

Journal of the Maine Ornithological Society.—The June, 1907, number of this 'Journal' opens with a brief history of the society, followed by an account of the Redstart from O. W. Knight's, 'Birds of Maine,' the 1906 migration report and numerous local notes. In the September number W. H. Brownson describes a visit to a colony of Laughing Gulls near Bristol, Maine, and also reports on the great Common Tern colony on Bluff Island. The autumn migration report of 1906 and the usual local notes complete the number. For December we have 'Observations on the Nesting and Feeding of the Loon,' by Dr. W. C. Kendall, 'The Wood Duck and its Danger,' by A. H. Norton, 'Scarcity of the Ruffed Grouse,'

by Walter H. Rich, and some interesting extracts from the journals of Mr. Geo. A. Boardman.

The March, 1908, number is largely devoted to Christmas bird lists and the proceedings of the annual meeting of the society held at Portland, November 29–30, 1907, marking the twelfth year of the existence of this flourishing organization, while there is also an account of a Bank Swallow colony, by H. H. Cleaves, illustrated by a plate. In the June number O. W. Knight discusses the Faunal Areas of Maine,' P. B. Rolfe writes of 'Fish Hawks Forty Years Ago,' and W. H. Brownson contributes extended migration notes from Cape Elizabeth, Maine, for May, 1908. There is also a portrait and obituary notice of Prof. Leslie A. Lee, late president of the society.—W. S.

Wilson Bulletin.—In the September number of the 'Bulletin,' Taverner and and Swales continue their valuable 'Birds of Point Pelee.' F. L. Burns reprints the preface to the fourth volume of Wilson's Ornithology, containing his list of birds breeding at Bartram's Garden in 1811, and compares it with his own list at Berwyn, not many miles away. Lynd Jones discusses the spring migration of 1907, and presents some additional lists of 'Birds from a Car Window.' A briefly annotated list of birds of western Lyman county, South Dakota, by A. Larson, completes the number.

For December, Lynd Jones has an illustrated paper on 'June Birds of the Washington Coast,' while there is a large installment of the Point Pelee list, and papers by J. H. Fleming on 'Birds of Hawkins County, Tennessee' and by F. L. Burns on 'The Ruffed Grouse in Pennsylvania.'

The March, 1908, number comes to hand with a new cover representing Wilson's Warbler, while the main article is by F. L. Burns, discussing at length the so-called Wilson-Audubon Controversy.

Lynd Jones continues his 'Birds of the Washington Coast,' and John F. Ferry presents a detailed study of the phenomenal spring migration of 1907, as observed in the vicinity of Chicago. Other papers are on 'A Migration Flight of Purple Martins in Michigan in the Summer of 1905,' by Frank Smith, 'The Acquaintance of Individual Birds,' by W. E. Saunders, and 'Summer Birds of Lake Geneva, Wis.,' by B. H. Wilson.—W. S.

Book News

The Annual Report of the Superintendent of the Yellowstone Park for 1907 contains (pages 15–23) "Notes on the Summer Birds" of the Park, by T. S. Palmer, in which seventy-four species are listed, largely as a result of observations made from August 7 to 21, and September 9 to 14, 1908.

Number three of Volume I of the ornithological publications of the Field Museum is a 'Catalogue of a Collection of Birds from Guatemala,' by Ned Dearborn. The paper is based mainly on Dr. Dearborn's work in Guatemala from January 4 to April 15, 1906, and contains notes on 305 species of birds.

DeWolfe & Fiske Co., of Boston, announce the publication in two volumes, the first of which is ready, of a work on the Birds of Guiana, by Frederick Paul Penard and Arthur Philip Penard. The work, which is written in Dutch, treats of about 1,000 species.

In 'The Century' for June, Gerald H. Thayer presents an article entitled 'The Concealing Coloration of Animals,' in which we have a concise general statement of the discoveries of Abbott H. Thayer in regard to this subject. We understand that the Macmillan Company has in press a volume in which Mr. Thayer's work is fully elaborated, but, while awaiting its appearance, the 'Century' article should be read as an introduction to a book which is certain to arouse much interest among students of animal life. July 10, Mr. Thayer demonstrated some of the results of his studies before the Biological Laboratory at Woods Hole.

Bird-Lore

A Bi-monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
Published by THE MACMILLAN COMPANY

Vol. X Published August 1, 1908 **No. 4**

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

Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

WHAT an overwhelming catastrophe was the introduction into America of the House Sparrow! Its harsh, insistent, incessant chirp is now the dominant bird voice about our homes, where we may never again hope to hear a chorus of native bird music unmarred by the discordant chatter of this pest. It is as though some foul odor had forever defiled the fragrance of our fields and woods.

THE contents of the June issue of the National Geographic Magazine demonstrates convincingly the value of the camera to the sportsman as a substitute for the rifle, and its importance to the naturalist as an aid in recording observations in tangible form.

Virtually the entire number is given to an article by the Hon. George Shiras, 3d, entitled 'One Season's Game-Bag with the Camera.' To be exact, for "Season's" we should substitute Year's, since the work of several seasons is here included; but, even with this amendment, the contents of the game bag is sufficiently remarkable, especially when we learn that it represents only the best specimens of the hunter's skill. Here are photographs of the Booby, Man-o'-War Bird, Sapsucker, Florida Screech Owl, Canada Jay, Brown Pelican, Florida Bob-white, Catbird, and Thrasher, the moose, caribou, Virginia deer, timber wolf, weasel, mink, and gray squirrel,—all of which show the animal in its haunts and tell more or less of its habits, while the accompanying text, which is far more interesting as a narrative than the simpler story of the man with the gun, contains also much valuable biographical matter.

In New Brunswick Mr. Shiras employed a famous guide, who for over forty years had hunted with the rifle; but, after his experience as an assistant in camera hunting, he said: "In my varied experience and with many scenes before me, I can only say in all sincerity that the hunt of the past week has proved more interesting, more exciting, and of more real value in the study of animal life than all that has gone before." Such a tribute from a naturalist would not be surprising, but that a professional hunter should so quickly yield to the fascination of camera hunting is eloquent evidence of the camera's inherent superiority over the gun for the sportsman as well as the scientist.

Mr. Shiras's story is illustrated by seventy photographs, selected from 250 taken between April 9, 1907, and April 1, 1908. It is perhaps needless to add that among them one looks in vain for a picture of the author standing proudly behind a string of dead birds, or beside a hung deer carcass.

A WORK now appearing in England comes nearer to the ideal presentation of a bird's biography than any with which we are familiar. It is entitled 'The British Warblers,' and is by H. Eliot Howard (R. H. Porter, publisher, 7 Princes street, Cavendish Square, London). The author has devoted years to the study in life of the subjects of his monograph and the results show what may be accomplished by specialization and continuous, definitely directed observation.

WHEN this number of BIRD-LORE reaches its readers, the southward migration of birds will already be under way; but how many of us will know anything about it? Show us a bird student with a journal well filled with August notes, and we will show you an ornithologist who was born, not made.


BRUCE HORSFALL
1908

THE TREE SWALLOW

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies
EDUCATIONAL LEAFLET NO. 33

"She is here, she is here, the Swallow!
Fair seasons bringing, fair years to follow!
Her belly is white,
Her back black as night."
—*Greek Swallow Song. J. A. Symonds, Trans.*

This bird, known also as the White-bellied Swallow, may be easily distinguished from his brethren by his dark back, lustrous with glints of metallic blue and green, and his pure white under-parts that extend quite up to the bill; a white marking so precise that the dark head marking, at a short distance, looks like a cap pulled low. The tail is bluntly forked, while the sharp-pointed wings exceed it in length,—this being very noticeable when the bird is at rest upon the wayside telegraph wires—his favorite post of vantage.

If the sight of the Barn Swallow arranging his stucco-work home on the rafters is one of the signs of coming summer in the real country, so the April return of the Tree Swallow is one of the first authentic signs of spring; for, being an insect eater, it cannot live until winged insect life abounds. The Phœbe, also a feeder upon winged insects, comes in March, it is true, but locating as it does about barnyards and outbuildings, where manure is stored, it is more sure of its food-supply than the Tree Swallow, who naturally belongs to the remoter region of wooded pond edges, where the frost lingers.

Time was when the Tree Swallow was evenly distributed through its range, which extends in the northeast as far as Alaska, and could be found nesting in the major part of it, but now it has become much localized as a summer resident, on account of the difficulty of finding suitable nesting places. Like the Bluebirds and Woodpeckers, this Swallow's natural home is a tree-hole, and, as land comes under cultivation, the hollow trees quickly disappear, except in swampy regions where the inaccessibility as well as the half-rotten condition of the timber has saved it.

His Home

In many places, the Tree Swallow, like the Purple Martin, will adapt itself to a bird-box, artificial hollow in a post, or even a hollow gourd, such as may be found in the south, suspended for the Martins. But, unlike this latter bird, or the Barn Swallow, the Tree Swallow does not seem to be gregarious, to any great extent, in the nesting season. The coming of the English Sparrow has been as disastrous to the semi-domesticated Tree Swallow as to the Martins and Bluebirds; so that those who clung to their old haunts and adapted them-

selves to new conditions have been obliged to shift ground, and hereabout I have only known of one pair nesting during the past five years.

The nest, or rather hole-lining, is made of dried grass and a few feathers, put together without the plaster used by the Barn Swallow, and the half-dozen eggs are paper-white like those of the Woodpeckers. This total absence of color in the eggs of some notable tree trunk nesters is one of the arguments used by the holders of the color-protection theory,—being in a hole the eggs do not need the protection of color to conceal them.

The Tree Swallow is a notable insect-eater and has many attractive domestic habits; it is not in the nesting season, but in the long period of the fall migration, that we are the most familiar with it. Indeed, this event, spread as it is from July to late October, is one of the great spectacular features of bird life; for, though the large flocks are made up of both Barn and Bank and Cliff Swallows, the Tree Swallows are greatly in the majority.

By day, these Swallows skim over the meadows and country at large with a wide circling flight, easy to distinguish from the more angular course of the Barn Swallow. Toward night, they gather either in the marsh reeds or in the low bushes of some region of ponds, or the back-water of rivers, where they roost, coming forth again in clouds at dawn.

This fact, that during the migration Swallows invariably roost near water, gave rise to the absurd old idea that they dive into the water and spend the winter in the muddy bottom in a state of hibernation. From roosting in the bushes on the sandy bars above marshes and along creeks where the bayberry (*Myrica cerifera*) is common, the Tree Swallow, kept in cover by storms, was doubtless driven by necessity to feed upon the waxy bayberries; for certain it is that this berry is the one exception to its insectivorous diet. Miss Lemmon has told in BIRD-LORE of one of these flockings at Englewood, N. J.:

"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.

Manoeuvres

"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 one hundred, 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."

The Tree Swallow not only comes earlier and stays longer with us than any one of the clan, but it is the only one of the family to winter in the United States, from South Carolina and southern California to the tropics. By its hardihood, it is exposed to the danger of starvation when a sudden drop in the temperature not only impairs its vitality but cuts off its food supply. Of one of these tragic incidents Mrs. Slosson tells us,—for with these seeming careless birds of passage, as with ourselves, it is not always either summer or good living.

"The cold wave reached us at Miami, on Biscayne Bay, Florida, in the night of February 12, 1899. It was preceded by severe thunder storms in the evening. On the 13, Monday, it was very cold all over the state, with snow and sleet as far south as Ormond and Titusville. Our thermometers at Miami ranged from 36° to 40° during the day. As I sat in my room at the hotel, about four in the afternoon, I saw a bird outside my window, then another and another, and soon the air seemed full of wings.

"Opening my window to see what the visitors could be, I found they were Tree Swallows. Several flew into my room, others clustered on the window-ledge, huddling closely together for warmth. There were hundreds of them about

the house seeking shelter and warmth. They crept in behind the window blinds, came into open windows, huddled together by dozens on cornices and sills. They were quite fearless; once I held my hand outside and two of them lighted on its palm and sat there quietly. As it grew dark and colder their numbers increased. They flew about the halls and perched in corners, and the whole house was alive with them. Few of the guests in the hotel knew what they were; some even called them 'bats,' and were afraid they might fly into their faces or become entangled in their hair. One man informed those about him that they were Humming Birds, 'the large kind, you know,' but all were full of sympathy for the beautiful little creatures, out in the cold and darkness. A few were taken indoors and sheltered through the night, but 'what were these among so many?'

"The next morning the sun shone brightly though the weather was still very cold—the mercury had fallen below 30° during the night. But as I raised the shade of one of my eastern windows I saw a half-dozen of the Swallows sitting upon the ledge in the sunshine, while the air seemed again filled with flashing wings. I was so relieved and glad. Surely the tiny creatures, with their tints of steely blue or shining green contrasting with the pure white of the under parts, were more hardy than I had feared. But alas! it was but a remnant that escaped. Hundreds were found dead. Men were sent out with baskets to gather the limp little bodies from piazzas, window ledges and copings. It was a pitiful sight for St. Valentine Day, when, as the old song has it, 'The birds are all choosing their mates.' "

Questions for Students and Teachers

When does the Tree Swallow reach your vicinity in the spring? Does it remain during the summer? If not, when does it return in the fall. When is it last seen? What is the range of the Tree Swallow? On what does it feed? What is the character of its nest? Describe its eggs. What other Swallows are found in North America?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

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

Important Notice

Many of the members of the National Association write that they receive two copies of BIRD-LORE. The reason for this is that BIRD-LORE, as the organ of the Association, is mailed to all members of the Association, and they probably overlook this fact and subscribe to the magazine in addition to joining the Association. Members will please bear in mind that so long as their annual dues of $5 are paid BIRD-LORE will be sent to them without any further payment on their part. If extra copies of BIRD-LORE are desired by members, they can be secured of the publishers.

Legislation

MASSACHUSETTS.—This state has failed to shorten the open season for wild fowl and shore birds, as House Bill 507, which was drawn for the purpose, was finally referred to the next session of the legislature.

Two additional acts were passed, however, which will in time establish refuges or reservations for forest birds. The first was an act to provide for the purchase of forest lands and reforestation. It was introduced and ably championed by Senator Treadway. It was advocated by the agent of the National Association, but its final passage was largely owing to the earnest and efficient work of Representative Gates of Westboro, who has been active in all good bird and game legislation. It empowers the State Forester to purchase land or accept donations of land in any part of the state, appropriates $5,000 and carries an annual appropriation of $10,000, beginning in 1909. This bill will ensure a considerable number of small forest reservations which will be added to year by year.

A bill establishing a county reservation on Mount Everett, in Berkshire, was finally passed through the efforts of Senator Treadway. Thus far all forest reservations in Massachusetts have been so managed as to furnish protection to all desirable animals that inhabit them, and this policy will undoubtedly be carried out, eventually, in all reservations.—E. H. F.

RHODE ISLAND.—The net result of the legislation of the year in Rhode Island, so far as bird protection is concerned, consisted in the passage of a bill prohibiting the killing of shore birds from January 1 to August 1, and another making an increased appropriation for the use of the bird commissioners. This is a great advance when it is considered that shore birds previously had no protection whatever in the state and that heretofore it has been impossible to get an increased appropriation.

The bill providing a close season for upland game passed both houses by a large majority, but, on the last day of the session, it was referred to a Senate Committee for concurrence in a house amendment and the committee failed to report it back.

The Rhode Island Audubon Society took an active part in legislative work. Very effective assistance was rendered by the former Secretary, Mrs. H. T. Grant, as well as by the present Secretary, Miss Alice W. Wilcox.—E. H. F.

LOUISIANA.—The session of the legislature in this state has just closed and it

was a particularly brisk one, so far as the Audubon interests were concerned. Owing to the activity of the Louisiana Audubon Society in preventing the sale of the plumage of wild birds, especially that of White Herons, the New Orleans milliners combined and introduced through Senator Louque, former attorney for one of the millinery firms, Bill No. 110, which was intended to repeal that part of the Model Law which prohibited the sale of the plumage of birds or parts thereof whether taken within or without the state. The hearing on this bill, at which five members of New Orleans dry goods firms were present, occupied nearly two hours, but the milliners were unable to make out a case and the committee having the bill in charge voted against its progressing any further. The chief spokesman for the milliners tried to cloud the issue by referring to the possibility of confusing exotic plumage with that of species found in Louisiana. On the other hand, President Miller, of the State Audubon Society, and Mr. Kopman, field agent of this Association, kept prominently before the committee that it was necessary to forbid the sale of plumage of all birds whether exotic or local, in order to protect local birds. Preventing the repeal of the Model Law was a great victory and cannot fail to have its effect in other parts of the country.

President Miller has been advocating for many months, and by his educational work had gradually prepared the way for the passage of two bills, which, after a strenuous fight, are now laws and place the state of Louisiana among the leaders so far as good bird and game legislation is concerned. The bills were introduced in the House by Representative Ventress and were known as Numbers 82 and 83.

Bill No. 82 was to establish a Board of Commissioners for the protection of birds and game and fish, defining their duties and empowering them to employ game and fish wardens and to provide the means to carry this into effect. The legislature of Louisiana, through this bill, has done a great deal to protect one of the state's most valuable assets, for no matter how excellent the game laws of a commonwealth may be, if there is no one to see that the laws are enforced, they are practically valueless.

Bill No. 83 provides for hunters' licenses, resident, non-resident, and alien, and also fixes the open seasons. This is one of the greatest advances ever made in bird and game legislation in Louisiana, especially as it removes Robins and Cedar-birds from the game list. At one time it was not thought possible that this could be done, but, owing to the splendid educational work referred to above, this radical measure was passed, only by a bare majority, however.

The Louisiana Audubon Society was organized in 1904. Mr. Frank M. Miller was elected President and has remained in that important position up to the present time. When he took charge of the work, he found a commonwealth with practically no bird or game laws of any kind and, in consequence, song and insectiverous birds were commonly sold in the markets. The birds of the coast had been almost exterminated, and, in addition, the state of Louisiana, furnished a very large part of the Cardinals and Mocking-birds that were exported from this country. In contrast, it is but justice to Mr. Miller to call attention to the present conditions in Louisiana which are almost entirely due to his splendid educational work and his activities in other lines. Louisiana now has some of the best game laws in force in the country, has a self-supporting Game Commission, has entirely prevented the export of live birds, has prohibited entirely the sale of wild birds' plumage, irrespective of where the plumage comes from, and has a greater number of Federal Bird Reservations than any other state in the country, and, in addition, owns or controls a large number of bird-breeding islands; in this latter respect, it is the banner state in the country.—W. D.

Oklahoma.—At the close of the first session of the legislature of the new state of Oklahoma, the Audubon Societies

found that they had been defeated. Very early in the session of the legislature a combination bill was introduced contrary to the advice of this Association, which very strongly urged that the Model Law be introduced as one bill and a game law be introduced as a second bill. Unfortunately our advice was not taken and, as a result, the Model Law was defeated, owing to the fight over the fish and game portion of the bill. Probably there was a further reason why the bill was not passed, in that the National Association did not feel that it could afford to send an expert representative to the legislature in order to present to the legislators the importance of a statute to protect the birds and game of the state; but, owing to the condition of the finances of the National Association, an appropriation for this purpose could not be made. One of the contributory causes that prevented the enactment of a bird and game law was that the sportsmen's organizations were mistakenly opposed to that portion of the bill referring to open seasons and, as they were organized, they flooded both the Senate and House with typewritten arguments especially criticising the open season for Quail and the bag limit, insisting that the season was too short and the bag limit too small.

A second cause was the heavy penalties provided in the bill against the oil producers for allowing oil from their wells to run into creeks and fish streams. A third cause was the provision prohibiting shooting on the Sabbath day, which was vehemently opposed by the sportsmen's organization. In addition to the above causes, the conditions existing in that portion of Oklahoma, which was formerly Indian Territory were so unlike those in the other portions of the state that it was hard to frame a law satisfactory to the two sections.

The leaders in both houses, after the first two months of the session, saw, or pretended to see, the absolute necessity of subordinating all minor subjects, and they seemed to regard the matter of bird and game protection as one of these, to the enactment of laws necessary to put the provisions of the new state constitution in operation; and in this, again, the conditions in the two territories forming the state presented problems that called into activity the wisest thought and judgment of the legislature.

In the last four days of the session repeated conferences were held by the game committees of the two houses, but every effort to get the senate committee to agree to the house bill proved abortive, and the friends of the birds finally in sorrow and regret reluctantly gave up the fight.

Notwithstanding the fact that all bird and game legislation was finally defeated, yet there were a large number of senators and representatives who were very ardently in favor of the bills, and in this connection it is only proper to give the highest credit to General J. C. Jamison for the splendid work he did in advocating the bills although he was not a member of the legislature; much of the work he did was at the cost of serious physical discomfort.—W. D.

Georgia.—We now have before the legislature of this state a bill, almost a fac-simile of the Alabama law, which is one of the best in the country. It has passed one branch of the legislature already and it is hoped that it will become a law before the end of the session.

Secretary Pearson has already spent considerable time at Atlanta urging the passage of the bill, and early in July, by invitation, Commissioner John H. Wallace, Jr., of Alabama, addressed the legislature on the subject of game preservation, confining his remarks largely to the economic value of birds. At the conclusion of his remarks over half of the members of the House and Senate came forward and expressed themselves as being favorable to the bill. Commissioner Wallace went as the accredited representative of the National Association. The bill provides for the establishment of a game commission and also for the hunter's license feature, both being necessary in Georgia as elsewhere.

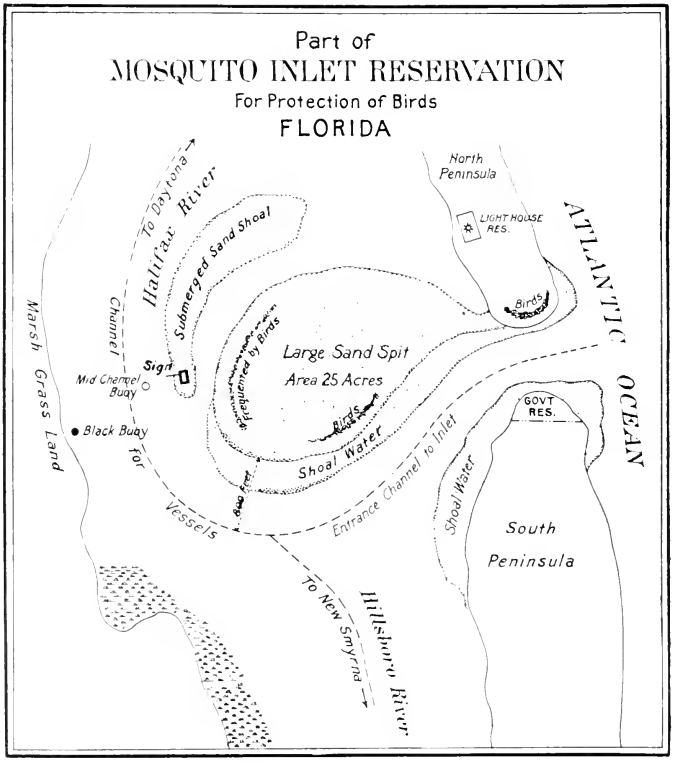
Reservation News

Mr. George N. Chamberlin writes concerning the Mosquito Inlet Reservation, the establishment of which was announced in BIRD-LORE for March-April, 1908 (p. 95), as follows:

MOSQUITO INLET RESERVATION.—"Before leaving Florida I called on Mr. D. D. Rogers, C. E., to ascertain the location of Township line 16, being the north line of the reservation, and was gratified to know that it is about 1,600 feet north of Port Orange Bridge, six miles north of the Lighthouse, taking in a small island close to the northern limit known as Pelican Island, Halifax River, the nesting place for hundreds of Blue Herons. The approximate length of the reservation from north to south is nearly thirteen miles. The south line crossing the Hillsboro River about two miles south of Hawke's Park, Florida."

PASSAGE KEY, FLORIDA.—Miss Eleanor P. Earle, one of our life members, writes as follows:

"When we were at Passage Key last Friday, there were four eggs in nearly all of the Skimmer's nests, and if not dis-



turbed they will soon have four of the sweetest little yellow-gray puff balls that you ever saw.

"A good many young Gulls are flying and we think by next month they all will be through nesting.

"The Little Blue Herons are just about beginning to hatch now; we have found eggs as late as July. The mangroves around the big pond must have become a little too crowded for the Louisiana Herons, for nearly half of them nested around the little pond, where the highest mangrove is hardly twelve feet. I wonder how the Red-wings and Grackles liked their new neighbors?

"Isn't it fine the way Great Blue and Ward's Herons have taken to Passage Key? The first year, 1906, there were only about six, and we don't know whether they nested or not; last year there were, after they had all hatched, about 130; this year nearly 400 on the Key. Of course, they may not all have nested but most of them did; I counted 78 nests. You understand that all the young raised are included in that 400.

"Passage Key is certainly beautiful now, but there's never a time when it is not, and there is one thing that we all wish all the time, and that is, for you to see it.

"We put up the new reservation notices on Passage Key, but have not gotten over to Indian Key yet; we think we may get there the last of next week. 'United States Bird Reservation' seems to make a great impression on everybody that reads it."

TORTUGAS, FLORIDA.—Prof. Alfred G. Mayer, who takes a deep interest in this reservation, writes as follows from the Marine Laboratory of the Carnegie Institution, on June 21.

"I am now happy to say that we have decidedly 'the upper hand' in the rat problem. The combination of azoa, strychnine, barium carbonate, cyanide of potassium and guillotine traps have rendered them rare both on Bird Key and on Loggerhead, so that the nesting Terns are now not appreciably interfered with.

"The *actual* number of rats on Bird Key appears not to have been more than 100–200. You know they breed every two months and often have ten young at a time.

"The Least Terns are having an unusual immunity on Loggerhead Key this season, and I have effectually checked the shooting and egg-eating propensities formerly indulged in by the lighthouse keepers.

"The Least Tern colony on Bush Key is larger than ever; there may be 1,000 birds there.

"Since I abolished shooting here the Herons and other transient visitors have become so tame that one may with care approach within ten feet of them; we have several on the island now.

"The lighthouse keeper desired to continue the shooting of Sharp-shinned Hawks, but I told him that *all birds* were protected. Undoubtedly every stray shot would have been at a 'Sharp-shinned Hawk.'

"Your man on Bird Key is an ardent rat-trapper and is doing well as a warden."

BATTLEDORE ISLAND, LA.—Through the courtesy of the National Association and of Mr. Frank M. Miller, President of the Louisiana Audubon Society, I was enabled to spend the first eleven days of June, 1908, on the Association patrol boat, 'Royal Tern,' on a cruise over the entire Breton Island Reservation, off the coast of Louisiana, and among all the islands owned or controlled by the Louisiana Audubon Society. In this brief general statement preliminary to a full report I have space only for some general remarks.

My main impression is of a vast area of shallow waters, low-lying islands of salt marsh, and outer sand-keys far to seaward, in all, hundreds of square miles, most of it teeming, sometimes swarming, with bird-life. I was too late to see the immense squadrons of wintering or migratory wild-fowl, which, after enjoying this peaceful haven of refuge where guns are outlawed, had departed for the far north. All but

ROYAL TERNS, BATTLEDORE ISLAND, LOUISIANA AUDUBON SOCIETY RESERVATION
Photographed by Herbert K. Job

the tag end of the shore-bird migration had also passed on, giving me only a few glimpses of lingering Dowitchers, Turnstones, Sanderlings, Yellow-legs, and Red-backed Sandpipers, and no sight of the hordes of Golden Plovers, the last flock having been seen by the warden the week before my visit. A few southern-breeding shore-birds—Wilson's Plovers, Oyster-catchers and Willets—were all that remained after my first week.

But other hosts were there,—wonderful, spectacular. Everywhere could be heard the cackle of the ever-present Laughing Gull, which bred by scores, hundreds, or thousands, as the case might be, on nearly every one of the numerous islands of the reservation, and on many others not yet protected. This species was the most abundant and widely-distributed of all. With them were occasional small colonies of Forster's Terns, perhaps a couple of dozen nests in each group, built on areas of drift-weed washed up on the marsh. Many of the inner marshy islands had strips of low mangrove bushes or clumps of weeds, in which, or on the ground by them, nested great numbers of Louisiana Herons. Occasionally there were with them a few Black-crowned Night Herons, locally known as 'Grosbecs.' On just one island was a pitiful remnant of former great colonies of the superlative Snowy Heron. Luckily I was able to secure a splendid series of intimate photographic studies of the home life of this exquisite but unfortunate possessor of the damning (to all concerned) aigrette plumes. A flock of some two hundred of the larger American Egrets seen by Warden Sprinkle in April did not return to breed.

On certain of the outer sand keys are immense breeding areas of Royal and Cabot's Terns, of the wonders of which even the accompanying photograph can give but an imperfect impression, as compared with the actual sights and sounds. Gales and high tides are now a worse enemy of these birds than man. A few days preceding my visit, a high tide, in calm weather at that, obliterated an area of probably from 1,500 to 2,000 nests. A few small colonies of the Caspian Tern were noted. The largest of these, with some 200 nests, had just lost all their eggs by raccoons. Save for a few Least Terns which one day flew by the vessel, I did not find the species on the reservation. No other Terns were noted than the above kinds.

Another abundant bird is the curious Black Skimmer, which lays in numerous groups of from a few dozen to a couple of hundred pairs just above high-water mark on the dry beaches of these outer keys. Brown Pelicans and Man-o'-war Birds had finished nesting, and, when not feeding, resorted to the outer keys and sand-bars to rest, the latter by thousands, acres and acres of them.

The abundance of bird-life here begins to suggest what it must have been in these waters in the palmy days before greedy millinery interests and brainless fashion started in unholy alliance to exterminate the wild birds of America. Much of the credit for the present encouraging conditions on this part of the southern coast is due to Frank M. Miller, as leader and instigator, and to the backing of the members of the Louisiana Audubon Society, as well as to many of the members of the Louisiana legislature, who have been broad-minded enough to realize the value of this great work and to close their ears to the clamor of selfish interests. In Capt. William M. Sprinkle, the warden, whom I found a delightful companion, and whose thorough acquaintance with every foot of those five hundred square miles of shallows was my perpetual amazement, the Audubon Societies and the National Government have a most faithful and efficient ally in guarding this great reservation.—HERBERT K. JOB.

WILLOW ISLAND, CONN.—Willow Island, the new bird refuge recently leased by the National Association of Audubon Societies, is situated in the Connecticut river between Middletown and Portland, Connecticut, and contains a little more than thirty-three acres. It is about three-quarters of a mile long and an eighth of

a mile wide. Much of this island is heavily wooded, willow, cotton-wood and elm trees predominating. Many of the cotton woods (poplars) are stately trees, being from seventy to ninety feet high. The open portion of the island is covered with grass, and a dense growth of underbrush contributes to its picturesqueness.

SOUTH END OF WILLOW ISLAND, NEAR PORTLAND, CONN.
Photographed by Miss Harriet Sage

Willow Island is a favorite nesting place for the Wilson's Thrush, or Veery, the Yellow Warbler, Baltimore Oriole, Rose-breasted Grosbeak, Scarlet Tanager, Redstart, Catbird, Maryland Yellow-throat, Song and Swamp Sparrows, and Spotted Sandpipers. In the early sixties, before the Rose-breasted Grosbeak was as common as at the present time, the writer used to think that the now restricted island was the best, and almost the only, local place in which to study this interesting bird.

During the migrations the island is the stopping place of innumerable Warblers, Sparrows and other birds that move north and south through the Connecticut valley. The rare Mourning Warbler has been observed there in the spring, and in the autumn it is not unusual to see the Connecticut Warbler.

Woodcock find the island a retreat; an occasional Ruffed Grouse is started from the thick undergrowth, and a bevy of Quail sometimes flies from the mainland to seek protection desired.

Deer stop on the island but do not violate the state laws as there are no gardens to destroy.

Willow island is a 'station' for many rare plants, some of them no doubt being deposited there during the spring freshets.

This island is one of the most beautiful and attractive pieces of land in the Connecticut river, and with the present desire for the wanton destruction of timber it is a relief and comfort to know that one spot is saved from devastation.—JOHN H. SAGE.

[The National Association has leased Willow Island for five years with the privilege of purchasing it for $3,500.

Plans are now being made to raise this amount through a popular subscription in Connecticut, especially among the school children, in order to purchase this island and make it a bird refuge in perpetuity.

According to recent statistics, there are in the state 227,547 children of school age, and a contribution of less than two cents each would more than provide the necessary fund for the purchase of Willow island. What a grand thing it will be for the children of the State of Connecticut to purchase and make Willow Island a perpetual home and refuge for birds].

A NEW PARK AND BIRD REFUGE.—Mr. Walmsley, the president of the Missouri Audubon Society, is also secretary of the Kansas City Zoological Society. He sends the following brief description of the new park:

"In reply to your request for information as to our Zoological Park will say that it is located in one of our city parks of over 1,300 acres and known as Swope Park. This park is full of wild life and the employees are already trapping wolves, foxes and other wild animals to be placed in the new Zoo. We have set aside sixty acres to be enclosed and on which to erect animal buildings for temporary quarters. The city has set aside $15,000 (and an additional $10,000 is available) for the purpose of erecting these buildings. They will be built of stone and cement quarried within the park. Through this sixty acres runs a little creek fed by several springs. Along this creek on either side rise minature rocky cliffs and it is the plan to hollow out these cliffs into dens with enclosures in front for such animals as live in rocky dens. A drive will pass over the tops of these dens and on either side of the creek in front of them so that all kinds of views can be had of the animals.

"The creek will be built into a series of cascades for about a thousand feet and in each basin will be placed aquatic animals, also plants and fish. To the west of this valley lies about 160 acres of level ground in which I hope in time to locate the Botanical Gardens. Through Swope Park and immediately bordering the sixty acres at present laid out, flows the Blue river, a beautiful little stream. Near the entrance at Swope Park, and immediately to the southwest of the sixty acres, is a stone building known as the shelter house which we hope to convert into a museum gathering therien all the private collections of this section; and here, the children can examine the mounted specimens and then go into the main park and become familiar with them in life.

"While we are only beginning in a small way we expect to have a Zoological Garden of which we can all be proud. Nature has certainly provided us with a location that could not be surpassed."

THE FARMINGTON MOUNTAIN RESERVATION.—Perhaps your readers may be interested to hear that the owners of the Farmington (Conn.) Mountains have agreed together to make the mountains a kind of Yellowstone Park reservation for all the wild life of the state; there is to be no hunting of any kind for ten years. And it is proposed to stock the reservation with the three or four game birds which have been exterminated. The Pinnated Grouse, the Wild Turkey, and, we might add, the Ruffed Grouse. The Farmington Mountains, which are really high trap ledges, are a continuation of the Green Mountains, and if the whole range of mountains running through New England

(with its outlying spurs) could be made a complete reservation for wild life, we feel sure that it would be of practical benefit to this section of the country. Or, in other words, the same intelligence used in keeping a chicken-coop, applied to the mountains and wild game birds, might surprise us all.—ROBERT B. BRANDEGEE.

Bahama News

"Late in May I found that seabirds' eggs were for sale all about the streets of Nassau, cooked and uncooked for twelve cents a dozen. I was assured by some of the merchants that they were a great luxury and to test the truth bought and ate them. They are decidedly inferior to hens' eggs and about two-thirds the size: I suppose they are eaten on every habitable island of the Bahamas. I do not think there will be an opposition to an amendment of the present bird law or the insertion of a clause prohibiting the sale of or taking of eggs. This will have some effect, necessarily slight, however. When foodstuffs are dearer, many of them at a premium, and the people who gather the eggs can neither read nor write, you will preceive that improvement must be slow. It will call for much missionary effort among the eggers, literature for the better class, etc., to make any impression on the situation. The only way to better conditions is to educate the people; this I am trying to do single-handed. If I had a little pecuniary assistance, I could accomplish a great deal more.

"By the most fatiguing labor I have succeeded in starting a new and well organized movement for industrial education. Since March the Governor has had the articles of Association under consideration, and I hope to hear by next mail that the Columbus Institute is incorporated. On this institute almost everything depends, the lives of the birds in particular. People who are ignorant and suffering cannot be made to protect anything. This school will be a sort of monument to the achievement of Columbus and on this ground I appeal for aid.

"I am writing this letter hurriedly, that you may know how matters stand. I will give you any further information you may wish. I hope the American people will respond to this call."—ALICE M. BOYNTON.

Government Aid

Prior to the present year thousands of Seabirds' eggs were brought from the Bahamas to the Key West market by spongers, turtlers and fishermen. This matter was brought to the attention of the Secretary of the Treasury who directed the Customs Officials at Key West to stop the traffic, as explained by the following letter:

"Port of Key West, May 29, 1908.

"Acknowledging the receipt of your letter dated the 25th inst., I beg to say that acting under the instructions of the Honorable Secretary of the Treasury, steps have been taken to prevent the bringing into this district eggs of Seabirds from the Bahamas.—Very respectfully, RAMON ALVAREZ, *Special Deputy Collector.*"

The Plume Trade

"The second and third of the year's feather sales were held at the Commercial Sale Rooms on April 14 and June 10. On both occasions there was a numerous attendance of buyers, and 'a good demand' is reported. At the former there were 338 packages of 'Osprey,' chiefly East Indian and Rangoon, and 270 Impeyan Pheasants. Some 6,800 Birds-of-Paradise were catalogued. Among the notable features of the sale were the great number of Parrots (8,299 entered by one firm), chiefly Indian paroquets; the Kingfishers (8,920), the Victoria and Coronata Crowned Pigeons (1937 from one firm, 5,350 by another), and over 15,000 Sooty Terns, the last named having the trade name of 'Dominoes.' At the June sale 15,500 Sooty Terns were again catalogued. This no doubt means that some breeding places of the species have been raided and all the birds killed. A number of other species of Tern were also on sale. Kingfishers were

in large supply, selling at $3\frac{1}{2}$d. to $3\frac{3}{4}$d. each. Impeyan Pheasants were 9s. 3d. each. Trogons 9d. to 2s. 7d., Orioles $1\frac{3}{4}$d., Tanagers $4\frac{3}{4}$d., Ruby Hummingbirds $1\frac{1}{2}$d. Victoria and Coronata Pigeons were represented by over 8,000 heads and crests. There were 205 packages of 'Osprey,' mostly from Asia; and 6,190 Birds-of-Paradise." (From Bird Notes and News,' London).

The above ghastly list of nature's finest gems was sufficient reason for the introduction of "The Plumage Prohibition Bill" into the House of Lords by Lord Avebury on May 5. The important provision is: "Any person who, after January 1, 1900, shall import or bring into the United Kingdom for the purpose of sale or exchange the plumage, skin, or body, or any part of the plumage, skin, or body of any dead bird which is not included in the schedule of exemption to this Act shall be guilty of an offence, and shall, on summary conviction, be liable to a penalty of not exceeding £5, and for every subsequent offence to a penalty of not exceeding £25, and in every case the court shall order the forfeiture and destruction of the articles in respect of which the offence has been committed."

The birds exempted in the schedule are "Ostriches, Eider Ducks and wild birds used as an article of diet." Names of foreign wild birds may be added or removed from the schedule by consent of the Privy Council. Lord Avebury said the Bill was introduced at the request of the Zoological Society of London, the Linnæan Society of London, the Selborne Society and the Royal Society for the Protection of Birds; further the bill had the support of the naturalists of the country, and especially of all lovers of birds. The bill has been most cordially and sympathetically received by the press.

The Manchester (Eng.) Guardian says: "The wail of the wholesale feather trade, which is beginning to be heard since the welcome to Lord Avebury's Importation of Plumage Bill, gives one unintentionally an excellent piece of news. For it is an item of their gloom that nearly all the raw skins and plumage used throughout the Continent come into the London market in the first instance.

"Of course, it is possible that foreign countries would obtain their supplies direct, but at least if the Bill passes, the deplorable trade would be so disorganized that it might never return to the present appalling statistics of slaughter."

The millinery trade is evidently greatly stirred up over Lord Avebury's Bill or they would not publish such a foolish statement regarding aigrettes as follows: "In regard to aigrettes, the people who collect these are not so foolish as to kill the goose that lays the golden egg, and in Venezuela, which produces the biggest lot of aigrettes, not one bird is killed, but the feather is picked up at certain seasons of the year when the bird casts its feathers."

This ancient but untruthful story has been shown up so often that it is fast becoming a joke. Why won't the millinery trade frankly acknowledge what they know to be true, that in order to obtain the plumes known as 'aigrettes' White Herons have to be killed while the plumes are in good condition. Why won't the milliners be honest and acknowledge that when the parent birds are killed the helpless nestlings must die of starvation.

Will the milliners please explain why there are no White Herons left in Florida now, while a score of years ago they could be found there in countless numbers? If "the feather plume is picked up at certain seasons of the year when the bird casts its feathers," why should the White Herons have disappeared? The Paris letter in The Millinery Trade Review (New York) for July says: "Black and white aigrette dyed in bright light shades is very much in it too, the favorite tints being rose-pink, maize, brown-yellow, apricot, old rose and steel-gray. Birds continue in considerable favor, Birds-of-Paradise taking first rank, white and brown Cockatoos and White Owls and Macaws coming next." It is evident that the millinery trade do not intend to abandon the use of the plumage of wild birds except so far as they are compelled to do

so by drastic laws, and it is therefore high time that laws similar to the Avebury Bill shall be enacted by all the civilized nations. An international convention should be held at an early date to urge such legislation or it will be too late to save many species of valuable and interesting birds from extermination.—W. D.

A Pleasant Letter

No letters ever reach the office of the Association that give greater pleasure than those received from young people, who not only give their sympathy and support to the work of bird protection but show from their letters that they are keen and intelligent observers of bird-life. The following is one of the best letters of this character that has ever been received.

"I wish to become a member of the Audubon Society. Enclosed please find five dollars dues. I am eleven years old and am very interested in birds. I have enjoyed BIRD-LORE very much for two years. I was much interested in reading about the Frigate Birds in the South Seas. We have made two voyages to the South Seas but I never heard of these birds being used like the Homing Pigeon. The story of the Petrel also gave me pleasure, as I saw many Albatrosses when we went around the Cape of Good Hope to New Zealand. I have asked several friends to join the Audubon Society.—Yours sincerely, HELEN GORDON CAMPBELL."

In Memoriam

Mrs. Emma F. Bush, a member of this Association, died December 7, 1907. Though a partial cripple she took up the study of birds about six years since and by her own unaided efforts made great progress. She gave bird talks to the local Audubon Society of which she was a prominent member. Mr. Bush writes: "Second to the work of forest preservation, comes to my mind the work of the Audubon Society. I send you my check for $10, and shall be pleased to send you at least this much each year as a continual contribution from Mrs. Bush."

Announcement

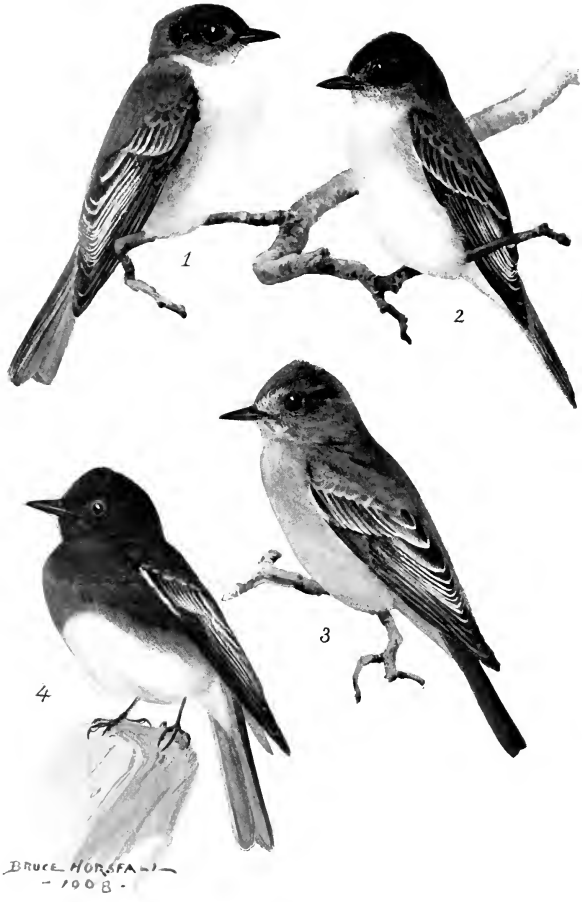
The Rev. Herbert K. Job, owing to the increasing public demands upon his time, and at the advice of his associates in the ministry, is shortly to try the experiment of devoting his time to writing and lecturing. Concluding a ten-years' ministry in Kent, Connecticut, the last of next October, he will locate in the suburbs of New Haven. He has accepted a position with The Outing Magazine, and, beginning with the January number, that periodical will publish his illustrated articles, written from the standpoint of the popularizing of bird study and of bird protection, thus making itself a useful ally of the Audubon Societies. Mr. Job is open to engagements for bird lectures during the coming season, and may be addressed for the present at Kent, but after Novemper 1, at 291 Main St., West Haven, Conn.

Women's Clubs

Mrs. May Riley Smith, of this city, attended the biennial meeting of the General Federation of Women's Clubs, which was held at Symphony hall, in Boston, the week of June 23, as the representative of the National Association of Audubon Societies, to present a paper on bird protection.

"It was my desire to have the delegates and representative members from the different parts of the country take this question home with them, to interest their clubs and friends, and to tell them the facts as I gave them in my paper, and also to impress upon the delegates the serious importance of prompt effort."

Mrs. Smith reports, "The audience was most attentive, giving me a hearty welcome and seeming to be *en rapport* with me in all I said. I did not mince the matter, but I presented the facts courteously and kindly and have had many enthusiastic congratulations since."



1. Phœbe, Spring
2. Phœbe, Fall
3. Say's Phœbe
4. Black Phœbe

(one-half natural size)

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. X SEPTEMBER—OCTOBER, 1908 No. 5

A Raven's Nest

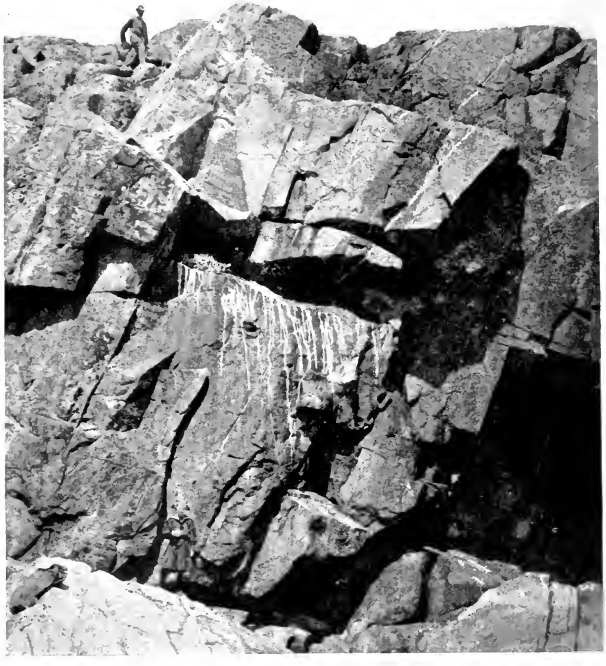
By FRANCIS H. ALLEN

THE accompanying picture shows a nest of the Northern Raven (*Corvus corax principalis*), found on Monhegan Island, off the coast of Maine, on June 2 of the present year. Though plainly to be seen from the sea and from some points on the rocky headlands near it, the nesting-site was hidden from most of the neighboring shore, and it was only after a considerable search that I succeeded in locating it. The nest was placed in a niche on the side of an almost vertical cliff, perhaps forty feet in height, on a minor promontory near one of the highest headlands on the eastern coast of the island, the narrow shelf on which it rested being about twenty feet from the base of the cliff. Though without a rope it was impossible to reach the nest, it could be approached quite closely from above, and I found there two young Ravens walking awkwardly back and forth on the shelf and in and out of the nest and looking about nervously. They were apparently full-fledged, but I could not get them to fly. Their bills appeared much heavier than Crows' bills, and the throat feathers showed the pointed ends characteristic of the species. They had the yellow mouth-corners of young birds. As long as I remained in the neighborhood they were silent, and nothing was seen of the parent birds.

When I visited the nest again, on June 4, the young had flown. Mr. Frederic Dorr Steele, who, with a few others, accompanied me, let himself down by a rope to the shelf where the nest was situated, and snapped his camera on it with one hand while he held on by the rope with the other. He then descended the cliff and photographed the nesting-site from below. The nest was composed of dead spruce branches without the bark, gathered, doubtless, from the remains of a burning near by, and was lined with usnea and sheep's wool. Wool is, I understand, as inevitably found in Ravens' nests on the Maine coast as the snake-skin in the Crested Flycatcher's nest. In this case it was perhaps a remnant saved from the time when sheep were kept on the island, a number of years ago, or it may have been brought from a distance.

The next day I spent some time watching the Ravens, both the old birds and the young, which lingered in the locality, about the cliffs and in the woods behind

them. The notes of the adults were chiefly a short and not very loud *cur-ruk* or *cruk*, with a roll to the *r*, and a somewhat prolonged, loud, hollow-sounding *croak* or *cr-r-r-awk*, pronounced with the guttural *r*, like the sound produced in gargling. This latter note can be heard a long way off and is very impressive. The tone is entirely different from anything I have ever heard from the common



A RAVEN'S NEST
"In a niche on the side of an almost vertical cliff, perhaps forty feet in height."
Photographed by Frederic Dorr Steele

Crow. Sometimes this loud croak was given as three short notes instead of a single long one.

I watched one of the old Ravens sailing about above Black Head in company with an Osprey, one bird frequently diving at the other. In these encounters the Osprey was commonly the aggressor. The Raven sailed almost as well

as the Osprey, though there were intervals of flapping in his flight, while the Osprey flapped little, if at all. After the Fish Hawk had departed, two Crows appeared and pestered the Raven for a while by swooping at him. The difference in size between the two species of *Corvus* was very apparent.

While I was watching this bird, the two young came quite near me, one alighting on the rocks not far from where I sat concealed behind a young spruce, and the other settling in the tops of the woods behind me. The bird on the rock walked awkwardly and once gave a hop. Before long he also rose and flew to the trees. A short search disclosed first one and then the other. The second, when I came upon it, was sitting only five yards from me on a spruce stub. It soon flew to the top of a tree near by, and then I had both birds under my eye, near each other and near me. They impressed me as being very considerably larger than Crows, and, as before, seemed to be fully fledged, though they showed the yellow chaps characteristic of young birds. They acted like young puppies, moving their heads about aimlessly, and they frequently pecked at the dead twigs of the spruces upon which they perched, or took a mouthful of usnea, which, I think, was always soon discarded. Once, one of the old birds croaked not very far away, whereupon the restless young immediately became quiet, but after a time they began to move again, though not so freely as before. I waited, hoping that the parents would approach, but they were very wary, and I finally had to give it up. The young were absolutely silent, as when I found them at the nest.

There is something romantic and inspiring about the very name of "raven," and a Raven's nest, especially one built in a more or less inaccessible situation on the side of a cliff looking out over the open sea, seemed a particularly interesting discovery,—more so, indeed, than the nest of some rarer but less famous bird would have seemed. So the Duck Hawk, though a fine bird in itself, and rare enough to make the first meeting with it an event in a bird-lover's life, becomes still more interesting when we call it a Peregrine Falcon. With these sentiments as to the poetic value of a visit to the Raven's nest, I was somewhat taken aback when it came out that one of the small party which accompanied me at the time when the pictures were taken, a lady of literary attainments—a well-known author in fact—thought she had been to see a Crow's nest, and that a Raven was the same thing as a Crow! For her the name of "raven" had none of the associations which had made its peculiar charm for me. I am bound to say, nevertheless, that even in the depth of her ornithological ignorance she appeared to enjoy the mildly adventurous element of the excursion, and to appreciate the rugged beauties of the scene about the Ravens' home.

Hummingbird Eccentricities

By MARY PIERSON ALLEN, Hackettstown, N. J.

ON the last day of May, 1908, I began to watch a Hummingbird's nest which had been discovered on a maple tree along the main street of our town. The first egg was laid on June 3, and the other one on the second or third day after. I had understood that the period of incubation was about two weeks, and did not look in the nest again until the 18th, when the second egg was not yet two weeks old, and behold, no eggs appeared. I was told that the nest had been looked at on the 14th, and no eggs were visible then. It would appear, therefore, that the birds had hatched only a trifle over a week after the second egg was laid. I could only guess at the presence of the little birds at first, for the nest was rather inaccessible, but soon the tiny bills began to show when the mother came with food. There seemed no danger that they would suffer from indigestion or gout, for they were fed very, very seldom. The male, as usual, gave no help to his mate, but she seemed equal to the increasing cares as her little ones grew to lusty birds.

When about three weeks old, one bird left the nest, sitting for hours on nearby twigs. For some time the mother fed both of her little ones, then deserted the one which was still in the nest. She may have come to grief, but I might be more inclined to be charitable had not the older bird left also.

From about two o'clock in the afternoon on the day when the first one left the nest, they were never seen again, and, after the deserted baby had cried

RUBY-THROATED HUMMINGBIRD'S NEST AND EGGS

for about twenty-four hours, he got out of the nest and soon fluttered to the ground. We offered him sweetened water in a spoon and he drank greedily. He was passed over to me and I took him home. His daytime cage was the parlor, where he sat by the window on a bit of stick held by a monkey-wrench, or flew about the room at will. At night I put his perch in a round food-screen and placed him

by an upstairs open window. He was exquisitely fearless as he flew to my finger to eat honey from a spoon, or fluttered before a petunia into which I had poured sweetened water. He had his mother's *zip-zip*, which meant flowers or happiness, and a plaintive baby *peet, peet*, when he wanted food. I read up on diet and tried various kinds of food. The varieties of bugs which he was sup-

"FLEW TO MY FINGER TO EAT HONEY FROM A SPOON"

posed to eat, he scorned, and I tried white of egg as a substitute, but think that the sweets agreed with him rather better. The little sprite had over fifty visitors from babyhood to old age, and from laboring men to the president of a university, who christened him "Hugo," possibly with a view to following out the law of contrast. He did well from Monday afternoon until Saturday morning, when he seemed, for a time, quite poorly. I was frightened about him, and took him out-of-doors on his tiny perch. He soon revived and ran his beak into the petunias and even flew a little way.

But now comes the marvelous part of my story. Several days before, I had heard of another nest a short distance out of town, and, on visiting it, had found a beautiful nest about fifteen feet from the ground. Before I had watched long, the dainty house-builder appeared with a bit of plant-down in her beak, and I supposed that the structure was not done. She alighted low in the tree and was partly hidden by the foliage. When I investigated, I was much surprised to find another nest partly built. It was a still greater surprise when I learned that the one bird owned both nests. This I could hardly believe until I saw the tiny mother go to the first nest and feed her one baby, and then go down and sit on her lower nest, which had slender guy-ropes of cobweb, and was only about seven and a half feet from the ground.

But to return to my worse-than-orphaned bird: I made up my mind, after he had shown signs of weakening, that I would take him to the mother who had but one baby, and, if a miracle came to pass, she might feed him. I flew for my horse and drove out of town to the other nesting-site. Little Hugo had

quite returned to his old spirits, but I was afraid to try to keep him longer, and so set him free in the beautiful orchard where the little mother had the two nests. Her baby had left its nest, but was keeping near home, and when the kind people who owned the place, and who helped me in my study in so many ways, cut down the nest, it had one tiny, unhatched egg.

Should any one doubt my veracity when I say that that mother adopted Hugo as her own, I could scarcely complain, for had I not been assured by an oculist that my eyes are normal, I could scarcely believe it myself. Moreover, the wee home-missionary has two eggs now in her lower nest, and, after feeding the two babies, goes and sits for a while on those eggs. Think of it,—a mother four inches long, with a growing baby, two eggs and a summer boarder to look after! On Saturday afternoon I hurried back to Hugo, and spent hours watching the little family. It was then that I learned of his adoption. He was very tame, and came down to the handle of a spoon I held to drink sweetened water from the bowl. I go to see him once or twice a day, and he comes down to eat from the spoon each time and even allows me to stroke him. When good Mr. D., who owns the orchard, went out this morning, Hugo lit on his hat, and, when his food was ready, came again and ate from the spoon. When the eggs hatch, I am anxious to see whether the big baby and Hugo, who is about four days older, will be cast on the world, or whether the almost human little mother will feed all four.

HUMMER TAKING SWEETENED WATER FROM A FLOWER

A Mocking Bird's June

By ALBERT V. GOODPASTURE. Nashville, Tenn.

I WENT down to Dudley June 4. When I arrived the pair of Mockingbirds who had preëmpted our lawn were looking out for a nesting place—no doubt the second of the season, as I was assured the pair in the neighboring hedge had already taken off one brood. In the nesting season each pair of Mockingbirds have their own particular demesne; and, while they do not resent the presence of other birds, any trespass by members of their own species is stoutly resisted. I witnessed more than one battle between our Mockers and a pair who hailed from the direction of the orchard, before their title to the lawn was acknowledged.

Being finally in peaceable possession, on June 6 they commenced building their nest in a solitary cedar, six or seven feet tall, that had grown up against the fence in the meadow; on the near side of the fence was the road that skirts the margin of the woodlawn. The nest was placed just at the height of the top plank—four feet seven inches from the ground. As a rule the Mockingbird builds her nest in a solitary bush or small tree, preferably by the roadside, or near the house, only a few feet from the ground; rarely more than ten or twelve, and frequently not above four or five. Last summer a pair built and successfully hatched and reared their young in some peach tree sprouts, only four feet from the ground, and so close to the road that every carriage that passed brushed against the branches that supported the nest.

Both birds labored diligently in constructing the nest. The materials for their work were close at hand; they found most of them in the road by the fence. There was nice dry grass and straw in the meadow, but they preferred the withered weeds and exposed roots along the roadside, some of which they detached with considerable difficulty. In gathering their materials they ran along the ground a short distance, halted, daintily elevated their wings, and leisurely closed them; then off again until they had found what they wanted. Lighting on the fence with their burdens, they entered the cedar from the left, and emerged from the right, resting again on the fence before starting for fresh materials. Sometimes as one entered the other came out, giving the appearance of the same bird passing entirely through the bush; indeed, when I first observed them, I could not tell for a time whether only one or both birds were engaged. In this way they prosecuted their labor for two days, beginning before six o'clock, the earliest hour at which I visited them, and continuing until sundown.

In the meantime they had many visits from other birds. If one of them approached the nest too closely they courteously gave him to understand he was intruding; they were never violent or noisy, but always appeared firm, dignified, and confident. They took no notice of a Meadowlark singing on the fence several panels away; nor of a Brown Thrasher, which, next to the Mockingbird, is the most brilliant songster we have at Dudley; though we never hear him

except in the early spring. A Flicker quietly pluming himself on the adjoining panel to the left of the nest, caused them little anxiety; though I observed they now began entering the cedar on the right instead of the left. The matter became really serious, however, when another Flicker appeared on the scene, and took his position on the right. A Mocker mounted a post between the new comer and the nest, and mildly scolded him, The Flicker, who is a humorous bird as well as a goodnatured one, seemed to enjoy his embarrassment. He moved down to the post, and hopping round it until he faced the Mocker, playfully bantered him. Apparently realizing his ridiculous position, after a moment the Mocker disappeared in the cedar, and the Flickers flew away to a nearby telegraph post, where they had a nest just four feet above that of a Red-headed Woodpecker. Once a Wood Pewee, who had her dainty little lichen-covered nest in a post-oak across the road, attacked a Blue Jay and drove him over to the neighborhood of the Mockingbirds, who, making him the single exception to their quiet bearing, furiously chased him back.

Like all poetic natures the Mockingbird is a creature of intense emotions, and the grace and enthusiasm with which he gives them expression is charming. As I watched the nest on the afternoon of the seventh, I witnessed a beautiful scene. The female was standing very quietly on the fence by the nest, looking wistful and pensive. I could not guess the cause. Presently the male appeared. Instantly she was all animation. As he came floating in, she flew out to meet him—not far, perhaps three or four feet—and then, in a flutter of delight, she moved backward with him to the fence. Perhaps she was telling him that she had given the last finishing touches to their nest.

The next morning I heard him singing on the telegraph wire, and when I went to the nest I found she had laid in it a little greenish blue egg, speckled with brown; and each succeeding day she laid another, until there were four. And how jealously they guarded them! One or the other was constantly on the lookout. The male spent much of his time in song, but he never sang near the nest, though it was seldom out of his sight. The female was its special guardian. If one approached the nest, instantly she appeared and anxiously questioned his movements with her bright, intelligent eyes. I do not think she regarded me as an enemy, though I daily examined her eggs and young, as I have done in other nests, to contradict in my own experience the old myth, which some people still believe, that the Mockingbird will destroy her eggs, or poison her young, if handled in the nest. Her nest was midway on the line of travel between the telegraph pole of the Flicker and Red-headed Woodpecker and the woodlawn by the house. In passing they often halted on the fence near it. In such cases, she promptly placed herself between the intruder and the nest. When a black cat passed up the road, there was real cause for anxiety; but she did not attack him, as we have been taught she would. She quietly followed him along the fence until he had passed the nest. By the time they had reached it, in some way a hue and cry had been raised, and a multitude of birds, Bronzed Grackles, English

Sparrows, Blue Jays and our ever watchful little Wood Pewee, joined in the chase, and, raised such a clamor that the cat stopped and looked up, but finding none of them in his reach, moved leisurely on.

On June 12 the female began to sit. The male did not assist her in the incubation, and was not often near the nest. Once I saw him watching on the fence-post while she was away, but when she returned and entered the nest he flew off to the telegraph wire and renewed his song. He now abandoned himself to his art. He frequently shifted his position from one elevated perch to another, such as the comb of the barn, the telegraph wire, the tops of isolated maples, and, occasionally, the fence, making a wide circuit from the nest, but keeping it constantly in view. While his song may have been inspired by the poetic purpose of cheering his sitting mate, I am sure he did not lose sight of the practical effect it might have in alluring his enemies away from her nesting place.

After an incubation of ten days, the young Mockers were hatched on the 22d. The father then ceased his song; he was too busy to sing; he joined actively with the mother in feeding the young. And how happy they were! I watched their first rejoicings with the greatest interest. How he petted and praised her! In return she showed him the little pledges of their love. Preceding him to the nest, she hovered over the little fellows, and glided lightly and noiselessly out. Then he entered, remained but a moment, and rejoined her on the fence. Now they dropped from the top plank of the fence to the next lower, and the third; and glided in and out among the lower branches of the small cedar that contained their nest.

Under the active ministrations of the parent birds, the young Mockers grew bravely until they were five days old. The succeeding night, the moon being at its full, was bright and luminous almost as the day. In the stillness of the night—I do not know the hour—the old gray cat left her kittens under the cabin and prowled out in the moonlight to see what she could find. She passed through the woodlawn into the meadow. By some unhappy instinct or accident, she found her way to the little cedar by the fence . Her feet were wet with dew. She crossed back through the fence into the dusty road, and stopped directly under the nest. How she knew it was there I cannot guess, unless the black cat told her. At any rate she suspected the truth. She leaped to the second plank from the bottom of the fence; the sharp claws of her front feet caught in the upper edge of the plank, and the dew-wet dust left the full round mark of her hind feet just under them on the side of the plank. At this moment the anxiety and alarm of the devoted mother must have been intense. But her suspense was short. The cat mounted straight up; the fence shows her claws on the upper edge, and her feet on the side of the third and of the top plank. The mother still covers her young. The cat now makes her spring. She was but twelve inches from the nest and might have crept to it, but the gray fur left on the cedar twigs show the suddenness and violence of her movement. There was no possible

escape for the young, but did the cat get the mother? I asked myself that question twenty times the next day.

When I arose next morning the male was singing gloriously from the topmost twig of the spruce pine by the garden. I had never heard him sing so sweetly. The Mockingbird is a musical genius the brilliancy of whose performance is beyond my power of description. The most obvious charms of his song, however, are the infinite variety and range of his round, full, distinct notes, and the rapidity and enthusiasm with which he trills his marvelous medley, composed of his own native notes, intermingled with the songs of all the other birds of his acquaintance. Four observations of his song, taken at different times, will convey some idea of his performance: (1) In ten minutes he changed his song of from one to four notes, forty-six times, and repeated each from one to nine times—on an average 3.41 times. (2) In three minutes he changed his song twenty-eight times, repeated each from one to nine times—average four times. (3) In one minute he changed thirteen times, repeated from one to nine times—average 6.3 times. (4) In ten minutes he changed 137 times, repeated from one to twelve times—average 3.18 times. His song, however, is little more remarkable than the grace and elegance of his form and movements. His wings rest lightly against his person, but do not hang, as the Catbird's sometimes do; his tail swings loose, but never droops. A light gust of wind will sometimes carry wings and tail above his body, but he readjusts them with perfect grace. His buoyancy is quite astonishing. He is so light and airy that he appears an ethereal being—the spirit of song. When he mounts aloft in the ecstacy of his song, there is no perceptible movement in the small twig on which he stood; he never uses it as a spring-board, like the Blue Jay, for instance, who shakes the whole tree-top when he leaves. He mounts with his wings, makes graceful convolutions in his song-flight, returns to the place he left, poises himself in the air, reaches down his feet and takes hold of the slender twig without the slightest jar. He never misses his hold, nor loses his balance. I have seen him bound aloft, float backward, downward, and inward to his original perch, describing a complete vertical circle, without changing the direction of his body. He continued his song at intervals all day, flitting restlessly from place to place, greatly enlarging his range, but never going near the desolated nest.

His mate turned up on the 27th, and entered energetically on the building of a new nest. She had suffered no other physical damage from the night's adventure than a broken feather—one of the beautiful white exterior feathers of the tail.

Concluding, I summarize the labors of our Mockingbirds for the man of records:

Building	June 6–7	2 days
Laying	June 8–11	4 days
Incubating	June 12–21	10 days
Care of young	June 22–26	5 days
Mating for new brood	June 27	1 day
Building	June 28–29	2 days

The Growth of Young Black-billed Cuckoos

By A. A. SAUNDERS, New Haven, Conn.

ON June 12, 1907, a friend informed me that he had found the nest of a Black-billed Cuckoo. I visited it a few days later. The nest was in an elder bush, on the bank of a stream, and about five feet from the ground. It contained only two eggs, but, as they had already been there several days, I decided that this was the whole set. I was rather surprised at this, as a nest I had found the previous season had contained four eggs. A few days later I found another Black-bill's nest, also with but two eggs. At both of these nests I noticed that the bird often sat in a curious position, with her head thrown back and her bill pointing almost vertically toward the sky.

At my first visit to the first of these nests, on June 25, I found that the eggs had hatched. The egg-shells had not been removed, but were in the bottom of the nest, broken into small pieces. The young Cuckoos were very curious-looking. Their skin was dull black and their bills and feet bluish black. In place of the patches of down found on young passerine birds, they were clothed with coarse white hairs evenly distributed over the body. They were evidently several days old, as their eyes were already beginning to open. They were very sleepy in their actions and resented handling with a curious, grunting sound.

YOUNG BLACK-BILLED CUCKOO, JUNE 30, 7.30 A. M.
Photographed by A. A. Saunders

During the next few days I visited them frequently. Their eyes opened wider and the white hairs grew longer, and at the base of each one a closely sheathed feather appeared. Unlike most young birds, they were very inactive during the morning, but became quite lively toward evening. At such times, when I approached, they stretched their necks to the utmost, opening and shutting their beaks and making hissing and grunting sounds. At such times they exhibited another peculiar mark. The lining of the mouth was bright red, and on the roof of it were one or two large, white spots.

On the morning of June 30, one of them was greatly changed in appearance. The feathers of the back and breast had broken through the sheaths and only those of the head and throat still remained unbroken. The other bird still had all the feathers sheathed. I placed them on a nearby limb and took their picture. They were much easier to handle than most young birds, but were very stiff and awkward in their poses. When the picture was taken, I put them back in the

nest and they settled down as though nothing unusual had happened. I was anxious to watch the sudden transformation which young Cuckoos undergo just before leaving the nest, so I visited them again that day at about 6 P. M. The older bird had left the nest and was nowhere to be found. The feathers were beginning to unsheath on the back and wings of the younger bird. I took the second picture of the bird in this condition.

YOUNG BLACK-BILLED CUCKOO, JULY 1, 6 A. M.
Photographed by A. A. Saunders

The next morning I reached the nest by 6 o'clock, certain that great changes had taken place overnight. As I approached the nest, the young bird hopped out of his own accord. I was much surprised to see that there had been no apparent change in the bird's plumage. I took another picture nevertheless, and, as the young bird refused to go back to the nest, left it perching on a convenient twig. At 9 o'clock that morning I visited the nest again, with two friends, who wished to get pictures of the bird. We soon found him near where I had placed him, though not on the same twig. The feathers of the back and breast were nearly all unsheathed. Apparently the process of the breaking of the feathers, which had begun the previous afternoon had been arrested over night and continued again in the morning. This suggests the thought that perhaps light or heat is necessary for this process.

YOUNG BLACK-BILLED CUCKOO, JULY 1, 9 A. M.
Photographed by D. B. Pangburn

The change in the behavior of the young Cuckoo was equal to that in his appearance. Instead of posing stiffly and awkwardly before the camera, he had no intention of posing at all. Though unable to fly, he would edge rapidly along the branch on which we placed him, till he neared another, to which he would jump. He was wonderfully acrobatic and, once in the bushes, jumped and climbed rapidly.

Chestnut-sided Warbler—A Study

By MARY C. DICKERSON

With photographs by the author

THE nest was two feet from the ground, in a viburnum bush, and was owned by an atom of bird-life, a Chestnut-sided Warbler, who was in possession at the moment. She made a charming picture on the nest, her yellow cap, above her bright black eyes, shining like gold in the sun. This Chestnut-sided Warbler was a trustful bird and did not move till the enemy was fairly upon her, when she stretched up her head and was gone so silently and swiftly that it was impossible to tell how she went, or where.

Immediately she appeared on the branches above the nest, flying out for an insect here, cleaning her bill yonder, inspecting this branch, then that, but

CHESTNUT-SIDED WARBLER BROODING

all of the time keeping an eager eye on the doings of the enemy. Her behavior had the effect of drawing attention to herself and thus away from the nest. With sides shining blood-red, with the golden cap and a white throat, and with a bright, quick grace of motion, she was inspiring enough to lure any eye from a mere nest of speckled eggs—notwithstanding the fact that these eggs were exquisite in their delicacy of shape and color, slightly tinted with cream, and speckled with brown at the larger end (if it is possible to use that comparative with anything so small).

Among birds all of the main acts connected with rearing the young are instinctive, of course. But really how wonderful is this blind giving up of freedom by a wild bird. She sits patiently and without nervousness minute after minute, half hour after half hour, fully alert, hearing everything, seeing everything, yet letting the insects fly past uncaught, and her mate chase and hunt and sing

without her. How strong must be the prompting that enables a bird to control her impulse to action, when she receives continually the sensations which have hitherto been inseparable from action. There is no vacillating in instinctive action. Nature holds to strict unquestioning obedience with a death penalty for disobedience.

The Warbler is back in her place. The nest is sheltered peculiarly well by the low viburnums and the stone wall. There is not a breath of wind there, when the trees and shrubs in the open are swaying vigorously. A Song Sparrow sings from the stone wall; a Black and White Warbler is continually seesawing its notes at the edge of the woods; a White-eyed Vireo calls emphatically from a near tangle of green; Swifts circle and chatter above her; these are all pleasant or indifferent sounds in her ears,—at least she does not stir. At the barking of a dog in the woods she breathes faster and erects the feathers of her crown, but still sits close.

Her mate seldom goes far from the nest. He wanders among surrounding trees and shrubs catching a fly or gnat here, a caterpillar yonder, on and back, this way and that, as a child might wander, attracted now by a ripe strawberry, now by a beautiful flower, shade or a convenient path. And he sings continually, even as he snaps up a passing insect and while balancing himself on a wind-swept branch. To human ears his song is much like that of the Redstart who is nesting near, but he puts the strong accent on the next to the last note, while the Redstart makes the final note emphatic.

When twilight comes a Chestnut-sided Warbler on the nest is remarkably well protected. In fact, the nest looks empty to the most observing eyes. Details of the surrounding vegetation may stand out with considerable clearness but the nest is empty—one can see that the sides curve downward and the bottom, quite destitute of eggs, shows distinctly. It is difficult to believe that the bird is there. The streaked feathers of the back and wings of the bird seem to be the grasses at the bottom of the nest, while the bird's gay-colored head is tucked under her wing for the night, or if not, it blends with the nest's rim.

Later when the eggs are hatched (thirteen days after the laying of the first egg) and the Chestnut-sided Warbler is brooding the young, there comes many a struggle between the maternal instinct of the bird and her fear instinct. When an enemy discovers the nest and she is forced to leave, she may flutter to the ground and feign a broken wing, dragging her minute self about in a pathetic fashion. Finding that this is not effective, she may return to the immediate vicinity of the nest. Here she sits on a small branch beside the nest. Talk to her and her fear increases, yet she will not leave. Twice she nearly falls from her perch, toppling forward and regaining position again. She is 'charmed' in the same manner that a bird is said to be 'charmed' by a snake; that is, the snake has done nothing, but the bird is a slave to its own fear.

While she is thus occupied her mate comes to the nest three times, at each visit bringing a bill full of tiny green caterpillars.

Be warned to keep from a Chestnut-sided Warbler's nest after the young birds are a few days old, for they seem to possess an unusual nervous irritability and gain the fear instinct at an unusually early period. They become frantic at any disturbance, even when the feathers extend from their tubes so little that the birds seem covered with minute camel's hair brushes, at a time when most nestlings have an undisturbed, dignified manner because knowing nothing of fear. They leap from the nest and even if caught and returned are likely to refuse to stay. Perhaps all Chestnut-sided Warblers do not gain the fear instinct as early as did those of three broods observed (instead of only one to three days before flight). But if they do, it would seem that here natural selection has a handle by which to keep the ranks of this species well reduced.

ROSE-BREASTED GROSBEAK AND NEST
Photographed by F. E. Howe, Sterling, Ill.

The Migration of Flycatchers

SIXTH PAPER

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

With Drawings by Louis Agassiz Fuertes and Bruce Horsfall

PHOEBE

The Phœbe winters in the Gulf States from Florida to Texas, and, occasionally, north to the Potomac and Ohio valleys. Hence, no dates of spring migration are available until the northern part of the winter home is reached.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Variety Mills, Va.	15	March 3	Rare, winter
New Market, Va.	16	March 16	March 9, 1892
Washington, D. C.	20	March 13	February 23, 1902
Beaver, Pa.	7	March 23	March 15, 1903
Philadelphia, Pa. (near)	12	March 23	January 23, 1894
Renovo, Pa.	12	March 26	March 15, 1898
New Providence, N. J.	8	March 19	March 8, 1894
Englewood, N. J.	11	March 21	March 13, 1894
Ballston Spa, N. Y.	12	March 31	March 20, 1902
Paradox, N. Y.	5	April 4	March 31, 1888
Jewett City, Conn.	17	March 24	March 15, 1902
Hartford, Conn.	16	March 25	March 13, 1898
Beverly, Mass.	5	March 23	March 12, 1898
Charlotte, Vt.	12	April 1	March 23, 1897
St. Johnsbury, Vt.	9	April 2	March 22, 1902
Hanover, N. H.	9	April 2	March 31, 1889
Monadnock, N. H.	3	March 26	March 22, 1903
Southwestern Maine	16	April 6	March 24, 1905
Montreal, Canada	6	April 17	April 10, 1887
Scotch Lake, N. B.	2	April 19	April 18, 1907
Eubank, Ky.	6	Feb. 27	February 13, 1890
St. Louis, Mo.	5	March 16	March 3, 1882
Independence, Mo.	6	March 13	March 11, 1902
Odin, Ill.	8	March 16	March 3, 1894
Chicago, Ill.	16	March 22	March 12, 1904
Rockford, Ill.	7	March 21	March 12, 1889
Brookville, Ind.	5	March 11	March 1, 1881
Bloomington, Ind.	8	March 15	March 2, 1893
Waterloo, Ind. (near)	12	March 19	March 11, 1887
Oberlin, O.	8	March 20	March 14, 1903
Petersburg, Mich.	9	March 16	March 10, 1894
Plymouth, Mich.	6	March 21	March 17, 1894
Southwestern Ontario	18	March 30	March 20, 1903
Strathroy, Ont.	12	April 1	March 19, 1903
Ottawa, Ont.	17	April 7	March 26, 1907
Manhattan, Kan.	10	March 22	March 14, 1885
Onaga, Kan.	13	March 22	March 13, 1893
Keokuk, Ia.	10	March 20	March 12, 1893
Grinnell, Ia.	5	March 19	February 27, 1885
Iowa City, Ia.	13	March 23	March 1, 1882

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Southern Wisconsin	19	March 27	March 18, 1894
Lanesboro, Minn.	10	March 27	March 22, 1889
Minneapolis, Minn.	13	April 5	March 22, 1907
Edmonton, Alberta			April 19, 1897
Fort Simpson, Mackenzie			May 14, 1904

The Phœbe does not breed in Florida and the last birds left northern Florida on the average, March 17, latest April 1, 1887; Kirkwood, Ga., latest April 5, 1902; Raleigh, N. C., average, April 7, latest, April 16, 1887; New Orleans, La., average, March 30, latest, April 26. On the return in the fall, they first appeared, at Raleigh, N. C., average, September 29, earliest, September 26, 1889; northern Florida, average, October 4; earliest, September 28, 1903; southern Mississippi, average, October 7; earliest, September 1, 1903; New Orleans, La., average, October 9; earliest, September 25, 1897.

FALL MIGRATION

PLACE	Number of years' record	Average date of last one seen	Latest date of the last one seen
Lanesboro, Minn.	7	October 7	October 13, 1891
Onaga, Kans.	5	October 7	October 17, 1906
Ottawa, Ont.	9	October 2	October 10, 1905
Southwestern Ontario	9	October 4	October 15, 1889
Chicago, Ill.	4	October 8	November 10, 1906
Oberlin, Ohio	4	October 5	October 19, 1906
Wauseon, Ohio	6	October 8	October 27, 1890
Waterloo, Ind. (near)	6	October 9	October 28, 1889
Central Iowa	12	October 15	October 28, 1905
St. Louis, Mo.			October 27, 1885
Athens, Tenn.	5	November 16	Rare, winter
Scotch Lake, N. B.			October 8, 1900
Montreal, Canada	3	September 26	October 8, 1888
Southwestern Maine	16	October 9	October 19, 1895
Providence, R. I.	4	October 9	October 27, 1901
Hartford, Conn.	4	October 11	October 30, 1900
Englewood, N. J.	4	October 19	October 25, 1905
New Providence, N. J.	6	October 21	November 5, 1892
Renovo, Pa.	10	October 10	October 18, 1894
Berwyn, Pa.	7	October 18	October 31, 1889
Beaver, Pa.	5	October 18	October 21, 1889
Washington, D. C.	8	October 17	December 31, 1883
French Creek, W. Va.	4	October 15	October 21, 1890

SAY'S PHOEBE

Say's Phœbe is resident throughout a large part of its range, including western Texas, New Mexico, Arizona, and much of California. A few notes have been contributed on the migratory individuals.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Chelan, Wash			March 17, 1896
Okanagon Landing, B. C.			March 29, 1906
Northern Colorado	7	April 5	March 20, 1907
Cheyenne, Wyo.	2	April 9	April 7, 1889
Terry Mont.	5	April 18	April 5, 1896
Edmonton, Alberta (near)			April 22, 1903
Athabaska Landing, Alberta			May 5, 1901
Fort Simpson, Mackenzie			May 4, 1904

BLACK PHOEBE

This Flycatcher is, for the most part, non-migratory, and ranges in western North America from Mexico and lower California, north to southern Oregon and east to central Texas.

FLORIDA BLUE JAY
Photographed by Frank M. Chapman, at Gainesville, Florida

Notes from Field and Study

Notes on the Varied Thrush at Everett, Washington

The Varied Thrushes are among the most characteristic birds of a Puget Sound winter. Many a rainy day is made less dreary by their bright presence and their peculiar song, for these birds, unlike most of our winter residents, sing more or less freely throughout their stay—a habit which, according to Mr. Lord's book, is not shared by the Varied Thrushes wintering in Oregon.

These Thrushes arrive in Everett about the middle of September. Sometimes the first intimation we have of their arrival is the sound of their odd song, which sets our nerves thrilling and our hearts rejoicing in eager welcome. But more often we first come upon a flock of them scratching in a wood path, among the fallen leaves, their handsome plumage harmonizing so well with the fall landscape that they seem the very spirit of September. When thus disturbed, they show little fear. They fly deliberately to the alder trees overhead, alighting on the larger branches. Occasionally one shows his interest by uttering a low, soft *puk* as we pass, but usually the whole flock is silent, watching the intruders with a calm dignity worthy of their family. If, however, we attempt a familiarity inconsistent with Thrush etiquette, they withdraw to the privacy of the tall fir trees which they love.

The Varied Thrushes eat alder and other seeds, and insects uncovered in their scratching; also crumbs and refuse about the dooryards. Winter before last, during an unusually heavy snowfall of eight inches, the Thrushes were regular visitors at our grain table and became quite tame, showing no alarm when we passed within a few feet of them. This same snowstorm, which killed so many birds in all the northern states, may have caused the death of many Varied Thrushes less fortunate than our visitors, for last winter the birds were more scarce than they have been for years. They disappeared from our neighborhood altogether in November and did not return until February 15, and since then they been seen only singly, or in twos or threes.

In the southern part of Washington, the Varied Thrushes mingle freely with the Robins, which winter there in large numbers. In some parts of the state they are summer residents. I have seen them in July in the Cascade mountains, at an elevation of about 600 feet, and have heard their song in August at the snowline, 8,000 feet above sea-level. During the summer of 1900, the song was often heard in the fir forest near Everett at tidewater, but we were unable to discover whether or not the birds nested there.

Mr. Fuertes has described the song of the Varied Thrush as he heard it in Alaska. He says it is "most unique and mysterious, and may be heard in the deep, still spruce forests for a great distance, being very loud and wonderfully penetrating. It is a single, long-drawn note, uttered in several different keys, some of the high-pitched ones with a strong, vibrant trill. Each note grows out of nothing, swells to a full tone, and then fades away to nothing, until one is carried away by the mysterious song."

We hear the song very frequently through the fall and winter months, but it is not so musical at that time as is the singing of the spring season. The birds sing often at sunset and occasionally through the busy hours of daylight, but seem to love best the early morning hours, singing to perfection in the first gray light of dawn. It matters not to them whether the air be clear and frosty, or heavy with rain and fog. The call is repeated from one tall fir top to another, sometimes clear and high-pitched, sometimes low, but always with that indescribable quality which "makes one thrill with a strange feeling," to quote Mr. Fuertes. It seems to express

a strange mingling of the most profound sadness with perfect triumph. The song varies greatly in quality, even in the same individual. When heard close at hand, it is somewhat disappointing. It seems to resolve itself into discordant elements and to produce almost a grating sound. This is especially true of the lower notes. One bird, singing for half an hour from the top of a tall, dead cedar, about 250 feet distant, gave the amusing impression of a vocalist practising a difficult lesson. Sometimes the notes rang out high, clear and thrilling; sometimes they were low and guttural, with a strong vibration strangely like the croak of a frog. Very often the singer would cut the low notes short, as if in disgust at his own performance; then, after a pause, would follow with a note much higher and clearer. Some of the notes were held as long as two seconds, but most of them about a second and a half, some of the low notes being broken short off almost as soon as begun. The intervals between the notes were occupied by the singer mainly in preening his feathers.—MRS. STEPHEN V. THAYER, *Everett, Wash.*

Nest-Building in August

I witnessed a performance, week before last, which seemed to me most unusual, although, to many of your readers who are more familiar with the habits of birds than I am, it may not seem at all uncommon. The fourth of this month (August) a friend visiting at my summer home said she had seen a pair of Robins building a nest in a black-thorn bush near the house, and that she had put some pieces of white and colored worsted in the grass which the birds had evidently found good building material, as they had carried it all off during the day. Early the next morning I went out to see if they were still preparing for housekeeping, and there they were, busily at work gathering bits of straw, dried stems of nasturtiums, etc., and taking them up to their nest, which, upon inspection, I found to be, apparently, completed on the outside. Wishing to help them along, I got several pieces of cotton twine and put them in the grass, and almost before I could resume my seat on the piazza, the female gathered them up all at once. I said *they* were building; I should have said the female was, as the male sat about on a nearby tree, illustrating the song that "everybody works but father," and occasionally dropping to the ground to gather in an early worm, which he greedily devoured. He had a having-been-out-all-night appearance, which I attributed to his probably undergoing the process of molting. The female was evidently in the same condition, although, like a much higher order of the animal kingdom, she had spruced up as much as possible under the circumstances, and looked quite neat and trim, compared to her lazy husband. After giving her a long piece of twine (about ten feet), which she gathered up without any difficulty, I thought I would have a little fun with her, so I tied a nail to another piece of twine and watched her try to separate them. Finding she could not do that, she took the twine, nail and all up to her nest, but afterward discarded it and it dangled from a lower branch. Knowing her time was valuable, and not wishing to interrupt her domestic plans any further, I got a lot more worsted and spread it out on the grass, but to my surprise she ignored it altogether, and continued to collect straws and stems. I then got some straw for her, but when I came out from breakfast, all of my last contribution remained untouched, and when I looked again, two hours later, the whole project of nest-building seemed to have been abandoned and the birds *I thought* had gone for good. The bush was in full view of the kitchen windows, and the servants, who had taken great interest in the nest, told me several days later they had not seen the birds since. I began to think that I had maligned the male bird and that while he had no objection to his wife's amusing herself building a nest, his indifference was due to his superior judgment in considering it foolish to start a nest so late in the season.

This morning (August 23), nineteen

days since I saw the bird at work, I thought I would take down the nest and see what disposition she had made of the colored worsted. When I went to the black-thorn bush, I was much surprised to see a Robin's tail protruding over the edge of the nest and a few minutes later, when the female left, the male appeared with a bill full of worms and proceeded to feed some young birds whose heads I could see and who appeared to be two or three days old. I have looked at the nest several times since I thought she had abandoned it, and have never seen any sign of her, although I have seen the male bird often in other parts of the garden; yet she slipped in quietly and unobserved, finished her nest, laid her eggs and is now, the last of August, beginning to rear her little ones.—ALEXANDER POPE, *Hingham, Mass.*

Protecting Young Birds from the Cats

It is little use for bird-lovers to meet and pass resolutions if they are going to allow an army of cats to eat up three-fourths or more of the song birds that are hatched.

The time when the domestic cat accomplishes her most terribly effective work is in the early summer when the young birds are unable to fly more than a few feet at a time and are easily picked up, either night or day. Mr. O. A. Stemple, of Clearwater, Fla., has, however, evolved a scheme which promises to save many of the young, if bird-lovers will only put it in practice. It is simply this: Catch the young birds and put them into a clean flour barrel standing in the shade of a tree near enough to the house to be easily watched. Leave it open at the top and put in food and a shallow dish of fresh water with the young birds. The parents will soon find and feed them, and when they are able to fly upward and out of the barrel, they will take care of themselves. Of course, they must be watched by day and securely covered at night until they are strong enough to fly out of their place of refuge.

We had an exciting episode here yesterday with a family of young Cardinals. The ambitious little things were out of the nest and unable to fly more than a few feet at a time. The frantic parents were feeding them and trying to keep track of their offspring.

We saw a Blue Jay make an attack upon one of them, and hurried to the rescue. But two of the little ones went chirping into a neighbor's yard. Being unable to get through the wire fence I rushed around the corner and into the yard, but I was two minutes or more too late,—only the cat was visible.

We caught the other two, however, and put them under a sieve with a heavy weight upon it for the night.

This morning we put the little ones into a clean barrel which stands in the shade of an orange tree. I mixed a hard-boiled egg finely with a teaspoonful of corn meal and put it into the barrel; also a shallow dish of fresh water. The top is open and the old birds are today taking care of them.

The brilliant male gallantly stands guard to keep the Jays away, while the loyal mother goes into the depths of the barrel (which looks so much like a trap) to feed her young. The little things are eating and growing and once in a while they are exercising their wings in flying upward. The barrel will be closely watched today and carefully covered with the sieve well fastened down before it is quite dark. It will be uncovered very early in the morning, and in three days time, or perhaps less, the birds will be free and independent.—ELIZABETH A. REED, *Clearwater, Fla.*

A Robin Note

My laboratory studio in Princeton is on the second floor of North College, with a window toward the campus, to the north. This side of Old Nassau is completely covered with ivy, in which dozens of English Sparrows nest.

A few years ago Robins were very numerous on the college campus, but of late a few red squirrels have their abode

there, and, with but a few exceptions, the Robins have been driven away. One Robin has built over the arch of the center window, and this spring a curious bird note could be heard all day long. This was an incessant sparrow-like chirp, interspersed with snatches of Robin song—the chirp predominating; this was made by a fine full-plumaged male Robin. He had probably been reared among the Sparrows and, by imitation, had acquired their notes.—BRUCE HORSFALL, *Princeton, N. J.*

A Tragedy in Bird Life

These early June mornings, so tempting to bird-lovers, have often found my brother and I afield armed with field glass and camera. And always, as we have reached a certain favorite spot, the familiar call, "Bob White! Bob White!" has been sure to greet us. Often, too, we flushed the Quail from the underbrush, but never a trace of the nest could we find.

Recently the mystery was solved, and a woodland tragedy disclosed as well.

So carefully was the nest made, and so well was it hidden, that had it not been for the tragedy, we should probably never have found it. But five or six of the white eggs scattered about in front of the nest drew the eye and, together with a bunch of feathers behind it, told the sad story.

Perhaps a family of young weasels that I saw playing in a thicket hard by could have told more of it. And had we had time to stay and watch we might have caught the thief coming back for the rest of his booty.

The nest is beautifully arched. One might almost call it a blind tunnel. Perhaps that is why the too careful mother was caught.

A LOOTED BOB-WHITE'S NEST
Photographed by Frank van Gilluwe

It was built just in front of a thick clump of tall grass, some of which was bent over and mixed with other grass and weeds to form the top. Almost directly in front of the nest was a thick bush which had to be held aside while my brother took the picture. It will always be one of great interest to us both.—EMMA VAN GILLUWE, *Ocean Grove, N. J.*

Notes on the Rose-breasted Grosbeak

In looking over some of my earlier notes on the Rose-breasted Grosbeak I found the following entries which seem, at the present time of writing, to be rather unique and worthy of permanent recording.

The year 1891 witnessed some of my first attempts at field-work in ornithology. My home was at that time in Jackson, Mich., and my field of observation a tract of semi-swampy ground on the southwestern extremities of the city, known locally as the 'Willows,' a term which has clung to the district ever since.

Here it was that, in the fore-part of May, 1891, in company with a friend, I met with a flock of about twelve male Grosbeaks in such a state of exhaustion that we were enabled to remove one or two from their perches in a low tree and hold them in our hands without further demonstration of displeasure from the birds than that of receiving a sharp nip on the fingers. We watched them for all of a half-hour and thought at the time that they were suffering from some sort of illness because of their apparent lack of strength. When first noted, the birds were clambering over the limbs of the poplars, in a languid and clumsy manner, but soon appeared to regain their strength. The time of observation was about 8 A. M. and the morning a mild one, with some traces of mist in the air, as the result of previous rains. Moreover, this was the first record of the species for that spring.

Looking back upon the occurrence now, the only explanation at all satisfactory is that the Grosbeaks were recovering from the extreme fatigue attendant upon the migratory movement from the south. This explanation is well sustained by the fact that the birds were still in a body, not having had time to disperse over the surrounding territory in quest of food. The morning being a mild one, the birds could not have been suffering from cold nor from lack of food supply, as the leaf and flower buds were well advanced on the majority of the shrubs for the season of the year and must also have supported some insect life.

If any of the readers of BIRD-LORE have met with a similar experience regarding this or any other species of bird, the writer would be glad to receive communications from such observers regarding this point.—A. D. TINKER, *Ann Arbor, Mich.*

Notes on the Wood Thrush

About the beginning of May, 1908, a nest of the Wood Thrush was found in a pine woods not far from home. It was built in a sapling, and, when found, contained four eggs. Several days later I visited the nest, but the eggs were gone, probably destroyed by a Blue Jay or other enemy. I found another nest on May 14, in the same locality, and this one also contained eggs. I visited it several times after this, and on every occasion the bird was on the nest. On May 27 there was no sign of eggs or bird. A little later on I found another nest. It was not far from the other two, and was built in a tall sapling. When found, the nest contained young birds. These were raised successfully. On June 2 I found another nest of the same bird. It was also built in a sapling. On June 6 a Thrush was on the nest. For several days after this I did not see the bird and secured the nest. It was a usual Wood Thrush nest, being built of pine needles, rootlets, leaves and a little moss. Strange to say, a large piece of snake-skin was also used. This is the only nest of the Wood Thrush I have seen that contained snake-skin.—EDWARD S. DINGLE, *Summerton, S. C.*

Book News and Reviews

The Ornithological Magazines

THE AUK.—The July number of 'The Auk' is a curious mixture of popular and scientific ornithology, with some nomenclature besides, which is neither one nor the other. Readable 'Observations on the Golden Eagle in Montana,' by E. S. Cameron, are accompanied by fine half-tone plates of the country and of the birds. Some of the prevailing ideas and stories regarding the habits and accomplishments of this splendid species are overset by Mr. Cameron.

One of the many dangers to which migrating birds are exposed is related by J. H. Fleming in an article on 'The Destruction of Whistling Swans (*Olor columbianus*) at Niagara Falls,' where, last March, fully a hundred of these great white creatures were swept over the falls and killed or captured afterwards. On page 317, R. Deane records a disaster to Chimney Swifts, several hundred being overcome by coal-gas in a chimney they had unwisely attempted to descend; and a third tragedy is noted by J. H. Bowles, on page 312, who found Mallard Ducks dead, apparently from lead-poisoning, due, evidently, to bird-shot that they had swallowed in quantity by mistake for gravel.

R. C. Harlow has 'Recent Notes on the Birds of Eastern Pennsylvania,' and C. J. Pennock contributes 'Birds of Delaware—Additional Notes.' '*Larus kumlieni*, and Other Northern Gulls in the Neighborhood of Boston,' is the title of a paper by F. H. Allen.

J. H. Riley describes a new race of the Broad-winged Hawk from Antigua, naming it *insulicola*, and E. J. Court separates the Great Salt Lake Blue Heron under the name *treganzai*. As each of these new forms is based, primarily, on a single breeding specimen, the need for new names may well be doubted. Without reflecting, in any way, on the good intentions of these describers, it might be remarked that the modern tendency is to name a difference first and explain it afterwards.

Fifty-seven pages are devoted to the Fourteenth Supplement to the A. O. U. 'Check-List,' now a thing of rags and tatters, ready for the nomenclatural junk-heap. This supplement is a ghastly four-years' record of changes and errors. The new additions are only thirty-four, ten of them being full species, of which six are stragglers to Greenland. The law of priority is cited as the chief scape-goat for the havoc wrought, but there is something radically wrong with any laws or rules of nomenclature which permit of such constant overturning of names as has been seen in the last decade. To the game of names no penalties are attached, and the rules are so complicated that few people can tell if one plays fair or not; so that, unless this amusement is taken bodily out of the hands of experts, no permanent stability is to be expected. Side-lights on the game are furnished by Dr. J. A. Allen in 'The Case of Strix vs. Aluco,' and 'Columbina vs. Chæmepelia;' but space forbids comment on the briefs presented, except to note that they set forth a deplorable amount of error and opinion. If names could be minted like coins, or, at least, all run through the same machine, we should soon have a stable nomenclature. The present exhibit is enough to disgust everybody who believes there is something beyond mere names in scientific progress.—J. D., Jr.

THE CONDOR.—Since the last review of 'The Condor,' several numbers have appeared, of which those for March and May still await notice. The opening article in the March number, forming the third part of Finley's 'Life History of the California Condor,' treats of the home-life of the bird, and is illustrated with one plate and five text figures. Adam's 'Notes on the Rhea, or South American Ostrich,' illustrated with reproductions of three

photographs, contains an account of the habits of the bird, and the Indian methods of cooking the Rhea and its eggs. Considerable attention is devoted to the birds of the Santa Barbara Islands in 'Spring Notes from Santa Catalina Island,' on twenty-nine species, by C. H. Richardson, Jr., and 'Notes from San Clemente Island,' by C. B. Linton. The latter paper is an annotated list of fifty-eight species, based on observations made in 1907, and contains a record of the Harris Sparrow (*Zonotrichia querula*), apparently the second for the state. A third formal paper is that by A. P. Smith, containing some general notes on the birds of the Whetstone mountains, Arizona.

Two articles devoted to nesting habits of certain birds also deserve mention,—one on the Phainopepla, by Harriet W Myers, and the other on the Great Blue Heron, by H. W. Carriger and J. R. Pemberton. Three text figures in the latter paper illustrate the unusual nesting-site of a colony of Herons near Redwood City, Cal. These birds, driven from their former breeding-place in the tops of some eucalyptus trees, constructed their nests on the ground far out in the marsh.

'Some Hints on the Preparation of an Oölogical Collection,' by R. B. Rockwell, may be read with profit by those interested in collecting eggs. In the editorial columns attention is called to the California Museum of Vertebrate Zoölogy, recently established at the University of California, at Berkeley, through the generosity of Miss Annie M. Alexander; and to the present status of the California Academy of Sciences in San Francisco. The collection of birds belonging to the Academy now numbers more than 11,000 specimens.

The May number stands out in strong contrast on account of its lack of illustrations. The only illustration is that of the nest of the Mexican Black Hawk in a brief article by G. B. Thomas, based on observations on this Hawk made in British Honduras. An important paper by J. E. Thayer and Outram Bangs, on the birds of Guadalupe island, indicates that three of the species peculiar to the island—the Guadalupe Caracara, the Guadalupe Wren, and the Guadalupe Towhee—are now extinct. Swarth contributes 'Some Fall Migration Notes from [southern] Arizona,' on one hundred and nine species, and Linton continues his papers on the birds of the Santa Barbara islands, with 'Notes from Santa Cruz Island,' containing an annotated list of eighty-eight species. Among the shorter articles are those on 'A Migration Wave of Varied Thrushes,' by Joseph Mailliard, 'The Waltzing Instinct in Ostriches,' by F. W. D'Evelyn, and 'Three Nests of Note from Northern California,' by Harry H. Sheldon.—T. S. P.

Book News

WITHERBY & Co. request us to state that 'How to Attract and Protect Wild Birds—A Full Description of Successful Methods,' may be obtained from the National Association of Audubon Societies, 141 Broadway, New York City.

D. APPLETON & Co. announce for publication in November, 'Camps and Cruises of an Ornithologist,' by Frank M. Chapman. The work is based on its author's eight-seasons' field-work while gathering material and making studies for the "Habitat Groups" in the American Museum of Natural History, and will be illustrated by upward of 250 photographs.

RECENT publications by the Bureau of Biological Survey include 'Directory of Officials and Organizations Concerned With the Protection of Birds and Game, 1908,' by T. S. Palmer; a wall chart showing the 'Close Seasons for Game in the United States and Canada, 1908, compiled by T. S. Palmer, and Henry Oldys; and 'Game Protection in 1909' by Henry Oldys; 'The Game Resources of Alaska,' by Wilfred H. Osgood; 'Does it Pay the Farmer to Protect Birds' (of which we shall write later) by H. W. Henshaw. The three last-named papers are from the 'year-book' for 1907. Copies of these publications may be obtained from the Bureau at Washington.

Bird-Lore

A Bi-monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
Published by THE MACMILLAN COMPANY

Vol. X Published October 1, 1908 No. 5

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

Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

THE time is approaching when the Committee of the American Ornithologists' Union will determine what changes, if any, are required in the common names of North American birds in the new 'Check-List.' We have invited and have received some correspondence on this important subject, but our contributors have, it seems to us, recommended more changes than it is desirable to make.

Granted that it would be possible to supply half our birds with more appropriate names than they now possess, if the present 'Check-List' name has been generally accepted, and is in common use, it should be retained. On the other hand, if the 'Check-List' name is not the one by which the species is generally known, the Committee should adopt the one most frequently applied to it. This rule, however, should be applied with discrimination, for it is not desirable to abandon terms in standing with people of education for the vernacular of the hunter. For example, 'Roseate Spoonbill' should not, in our opinion, give way to 'Pink Curlew,' by which name this bird is known in Florida. But 'Anhinga,' which must be explained whenever it is used outside an ornithological audience, might well be replaced by the commonly employed 'Water Turkey,' or 'Snakebird.'

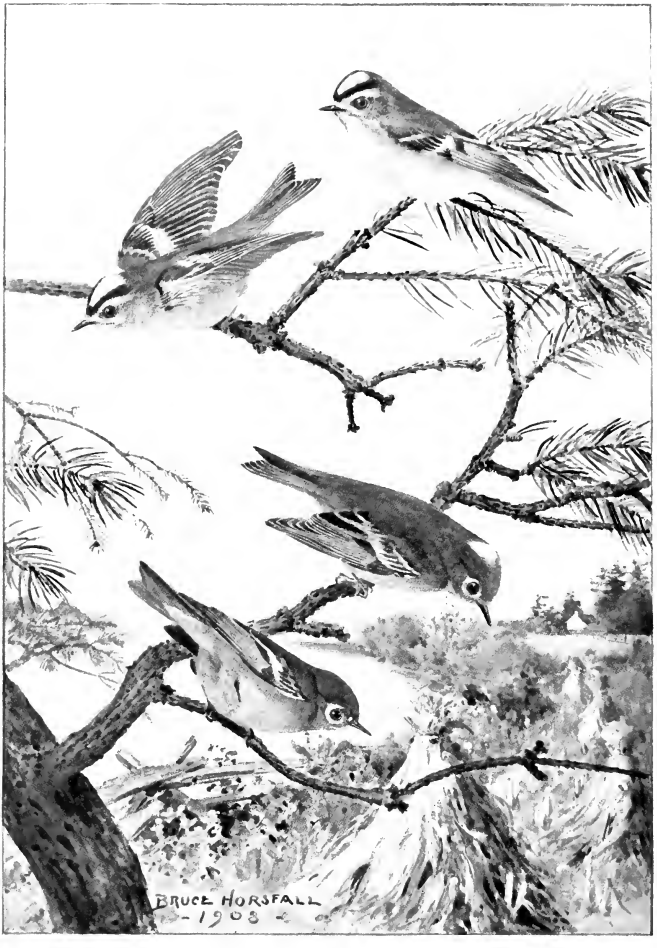
In preparing the first edition of the 'Check-List' (1886), the Committee had many cases of this kind to act upon, and its decisions, on the whole, were made with excellent judgment. In some instances, however, the public have not adopted the A. O. U. Committee's name, and, in the forthcoming edition of their work, it might be good policy for them to acknowledge their failure by adopting the current name of the species in question.

The 'Snowy Heron' (*Egretta candidissima*), as an aigrette-bearing bird, is just as much an Egret as the 'American Egret' (*Herodias egretta*) and is certainly more deserving the term than the 'Reddish Egret' (*Dichromanassa rufescens*) of the 'Check-List.' In Florida it bears the name Egret, in common with the larger white bird (*egretta*), and there seems to be abundant reason for changing 'Snowy Heron' to 'Snowy Egret' in the new 'Check-List.'

'Bartramian Sandpiper' is another name which the public has done well to reject. The case is complicated, for to adopt the vernacular 'Upland Plover,' would apparently place a Plover among the Sandpipers; but, if we are to have a book name, let us compromise on Upland Sandpiper and relieve the bird of its Bartramian handicap.

Personally, we should like to see the name 'Semi-palmated Plover,' by which no one but an ornithologist calls the bird, abolished for the more generally known and more descriptive 'Ring-necked Plover.' The fact that several species have ringed necks should not deprive us of the use of the name, while the 'Ring Plover' of our 'List' occupies too limited an area in America to be considered in this connection.

All the various species of 'Partridge,' which are invariably called 'Quail' by the people of the country they inhabit, should, we think, be called 'Quail;' the 'Green-crested Flycatcher' should be given its former name of 'Acadian Flycatcher,' the 'Leucostictes' should be known as 'Snow Finches,' Louisiana Tanager should become 'Western Tanager;' for obvious reasons, the 'Water-Thrush,' 'Northern Water-Thrush,' and the formal 'Wilson's Thrush' may well be abandoned for the more poetic and suitable 'Veery.'



GOLDEN—AND RUBY—CROWNED KINGLETS

Order—PASSERES
Genus—REGULUS
Family—SYLVIIDÆ
Species—SATRAPA AND CALENDULA

THE GOLDEN-CROWNED KINGLET
THE RUBY-CROWNED KINGLET

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies
EDUCATIONAL LEAFLET NO. 34

When October comes, the fall migration is in full swing. The trees are full of the bustle of comings and goings, and the morning sun, that now gives little heat before eight o'clock, draws many night-travelers from their seclusion to preen and spread their feathers after a dew-bath in the grass. Aside from call-notes, more or less musical, there is an absence of real song, save in the case of the Meadowlark, White-throat or Song Sparrow, whose cheerfulness is unconquerable, and the murmurs of the young of the year, who are often impelled to try their voices before their first spring. As the birds of summer vanish, we turn eagerly to those that may be with us in the cold season, and are divided technically into two groups—the Winter Residents and the Winter Visitants. We might naturally think that birds that can stand the rigors and changes of the winter, even in our middle states, must be of large size and powerful in wing; but is this always so?

Winter Birds

No, quite the contrary. Of course, the resident Hawks and Owls are large, as is also the Crow; while the Flicker, Jay, Meadowlark, Waxwing, Crossbill and Robin are sizable; but how about the Purple Finch, Myrtle Warbler, Bluebird, Song Sparrow, Chickadee, Winter Wren and the Golden-crowned Kinglet?

The Kinglet's Size

This Kinglet is third in the list of our three "least" birds, the measurements of the other two running thus: Ruby-throated Hummingbird, 3.75 inches in length, Winter Wren 4.06 inches, while the Golden-crowned Kinglet is 4.07 inches. The Ruby-throat leaves with the first warning of frost, but the Winter Wren becomes a familiar resident about wood-piles and brush-heaps, and the tiny Kinglet may be seen in all the coldest months.

How shall we know the Kinglets, crowned by their crests of flame and gold, or ruby? They have no conspicuous flight like the Kingbird, no azure coat like the Bluebird, or familiar call and ways like the Chickadee.

When, in early October, you see the shadow of a tiny bird of dusky olive plumage working industriously between you and the sky among the terminal twigs of an apple tree, or maybe a spruce, then watch out! The bird that acts and looks like one of the tribe of Warblers, so hard to identify in autumn, and has a Warbler-like voice, not only may be, but most likely is, a Kinglet.

Go as close as possible, and watch the restless head atop the fluffy ball of feathers. Does a heavy black band margin a yellow line that encloses a patch

of fiery orange on top of the bird's head? Then it is the male Golden-crowned Kinglet. If the patch is only black and yellow, then the bird is a female. If the bird *has two distinct white wing bars and a white eye ring*, and does not show the striped head markings, it is likely to be the Ruby-crowned, whose flaming, plain red crest, being partly concealed by olive feathers, is conspicuous only in certain lights. These two Kinglets, though so much alike in general appearance, have very distinctive individualities. Both species breed northward from the United States, and are, therefore, only with us as visitors, yet their special attributes belong to different seasons. It is for the exquisite spring song of the Ruby-crowned that we prize him; for, like a wandering minstrel, he sings his way from tree-top to tree-top along the northern route to his breeding haunts; while, though the call of the sprightly Golden-crowned is an almost insect-like chirp, its value lies in its cheerful winter companionship. Taking them separately, this Kinglet must have right of way as being the most easy of identification, not only from its brilliant crown, but from its animated little song *teezee—teezee—teezee*, given in an ascending key and ending in a sort of titter, half cry, half laugh. This performance is given constantly as the bird searches the smallest twigs for the insect food upon which its high vitality depends, for, aside from all esthetic qualities, both Kinglets are great consumers of the insects of the terminal shoots of orchards and forest trees, that larger birds can not reach.

The Golden-crowned Kinglet

The range of this little bird extends over North America from the Gulf states northward to the tree limit. Its general nesting haunts are from the "northern United States northward, southward along the Rockies into Mexico, and in the Alleghanies to North Carolina; winters from its southern breeding limit to Mexico and the Gulf States."

His Range

The observations that give the most detailed account of its nesting habits were made in Worcester county, Massachusetts, by Mr. William Brewster.* Three nests in all were found; the first on June 13, when the outside was practically finished and the birds were working at the lining. On June 29 it contained nine eggs. Mr. Brewster's description, quoted freely, is as follows: "It was placed in a slender spruce on the south side, within two feet of the top of the tree, and at least sixty feet above the ground, suspended among fine, pendent twigs about two inches below a short, horizontal branch, some twelve inches out from the main stem, and an equal distance from the end of the branch. The tree stood near the upper edge of a narrow strip of dry, rather open woods, bordered on one side by a road and on the other by an extensive sphagnum swamp.

His Nest

"The outside of the nest was composed chiefly of green mosses prettily diversified with grayish lichens, ... the general tone of the coloring, however, matching that of the surrounding spruce foliage. The interior, at the bottom, was lined with delicate strips of inner bark and rootlets. Near the

*See The Auk, Vol. v, 1888, pp. 337-344.

top were feathers of the Ruffed Grouse, Hermit Thrush and Ovenbird, arranged with the points of the quills down, the tips rising slightly above the rim and curving inward, so as to form a screen for the eggs. The second nest was closely canopied by the spruce foliage, under which it was suspended, leaving hardly enough room for the parents to enter.

The Eggs

"The ground-color of the eggs varies from cream-white to a deep muddy cream-color. Over this are varied markings of pale wood-brown, these, in turn, being the background for sharper markings of lavender. In both nests the eggs were too numerous to find room on the bottom of the nest, and were *piled in two layers*." [Incidentally, it would be interesting to know how the little birds manage to turn these nine or ten eggs so as to secure equable heat.]

"These nests were found by watching the birds while building; a task of no little difficulty in dense spruce woods where the light was dim, even at noonday. Moreover, the movements of this little architect were erratic and puzzling to the last degree. . . . We finally found that her almost invariable custom was to approach the nest by short flights and devious courses, and, upon reaching it, to dash in, deposit and arrange her load in from two to four seconds and at once dart off in search for more."

You may expect to see the Golden-crown in numbers in the middle and eastern states almost any time after September 20 until Christmas, then sparingly until middle March, when the return of those who have roved farther south begins. By the first of May, at the latest, they will all have passed northward in advance of the general migration of Warblers.

I have many times seen them about my feeding-tree, where they hang upside down upon the lumps of suet with all the agility of Chickadees; while, upon one occasion, a Winter Wren, a Brown Creeper and the Kinglet all occupied characteristic positions upon the same lump of suet, feasting and chatting, as it seemed, in perfect harmony. This goes to prove that the remoter birds may be encouraged to stay about habitations if only proper food is within reach; while suet in large lumps, securely fastened so that birds may perch on it and peck at it as they would in quarrying insects and grubs from under bark, is the food universal for all insect-eaters.

. . . . . .

The Ruby-crowned Kinglet

The public rôle of the Ruby-crowned Kinglet is that of a songster pure and simple, though he is as industrious in his search for food as his little brother, and as clever at nest-building in the mountain fastnesses, sometimes at a height of nearly 8,000 feet. In fact, this nesting of the Ruby-crowned is conducted with such secrecy that we have but few and meager descriptions of it. Unlike his brother, we see the Ruby-crowned in a brief interval between middle April and May, and again for a month between late September and October. During both migrations, they are birds of the same class of thickets that Warblers love.

The late Doctor Coues gives us one of the best descriptions of the ways of this Kinglet. He says: "To observe the manner of the Ruby-crown one need only repair at the right season to the nearest thicket, coppice or piece of shrubbery. These are its favorite resorts, especially in fall and winter; though sometimes, in the spring more particularly, it seems to be more ambitious, and its slight form may be almost lost among the branchlets of the taller trees, where the equally small Parula Warbler is most at home. We shall most likely find it not alone, but in straggling troops, which keep up a sort of companionship with each other. . . They appear to be incessantly in motion,—I know of no birds more active than these,—presenting the very picture of restless, puny energy, making much ado about nothing.

"The Ruby-crowned Kinglet is one of our most wonderful songsters. During April and early May, the attentive listener can frequently hear the beautiful lay. The notes are clear, very loud and prolonged, full of variety and purity. This exquisite vocalization defies description; we can speak only in general terms of the power, purity and volume of the notes, their faultless modulation and long continuance."

Audubon says of it: "When I tell you that its song is fully as sonorous as that of the Canary-bird, and much richer, I do not come up to the truth, for it is not only as powerful and clear, but much more varied and pleasing."

But of many like descriptions of this wonderful song, that of Mr. Chapman is by far the most expressive: "The May morning when first I heard the Kinglet's song is among the most memorable days of my early ornithological experiences. The bird was in the tree-tops in the most impassable bit of woods near my home. The longer and more eagerly I followed the unseen singer, the greater the mystery became. It seemed impossible that a bird which I supposed was at least as large as a Bluebird could escape observation in partly leaved trees.

"The song was mellow and flute-like, and loud enough to be heard several hundred yards; an intricate warble, past imitation or description, and rendered so admirably that I never hear it now without feeling an impulse to applaud. The bird is so small, the song so rich and full, that one is reminded of a chorister with the voice of an adult soprano. To extend the comparison, one watches this gifted but unconscious musician flitting about the trees with somewhat the feeling that one observes the choir-boy doffing his surplice and joining his comrades for a game of tag."

Remember these tributes and, when the leaves grow yellow and fall away, watch for the Golden-crown among the upper twigs in the orchard; and, when the swamp maples redden and the beeches unfold their velvet paws, listen in the copses for the voice of the matchless Ruby-crown. Like all the smaller, elusive birds, the Kinglets have been known under various names given by the older ornithologists, who were not exact in family groupings and nomenclature. Golden-crested Wren and Golden-crested Tit are among these titles.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

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

Notice of the Annual Meeting of the National Association of Audubon Societies

The annual meeting of the members of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, for the election of six directors, to take the place of the following directors, viz., Abbott H. Thayer, Mrs. C. Grant La Farge, John E. Thayer, Frank M. Miller, Theodore S. Palmer and Ruthven Deane, Class of 1908, whose terms of office will then expire, and for the transaction of such other business as may properly come before the meeting, will be held at the American Museum of Natural History, Columbus avenue and Seventy-seventh street, in the Borough of Manhattan and City of New York, on the twenty-seventh day of October, nineteen hundred and eight, at two o'clock, P. M. At the close of the business meeting, Mr. William L. Finley, our northwest field agent, the well-known explorer and nature photographer, will give an illustrated lecture on the results of his summer work, entitled "On the Trail of the Plume-Hunters."—T. GILBERT PEARSON, *Secretary.*

A Valuable Book

The Association has received an advance copy of "How to Attract and Protect Wild Birds—A Full Description of Successful Methods," by Martin Hiesemann, translated by Emma S. Buchheim, with an introduction by Her Grace the Duchess of Bedford, President of the Royal Society for the Protection of Birds. This publication is a translation into English of the German work, which describes the methods devised by Baron von Berlepsch, at the experimental station at Seebach, in the district of Langensalza, in Thuringia, the ancestral castle of the Berlepsch family since the twelfth century. The area used for experiments comprises about five hundred acres, of which nineteen acres are park, sixty acres are thickets (poplar and willow plantations), and four hundred acres are wood.

The methods used by Baron von Berlepsch for many years, and the successful results attained, are of such great value and of so great interest that the publication should be in the hands of every bird-lover in this country. The publication contains many cuts of bird-boxes, feeding-places, shelter-woods, and other hints of value.

The Association has sent an order to Germany for a complete outfit of nesting-boxes of various sizes and shapes, and also of food-sticks, food-houses and food-bells. It is hoped that these will arrive in time to be exhibited at the annual meeting of the Society, in October. As soon as Messrs. Witherby & Company, of London, the publishers, have the book ready for delivery, it will be on sale at the office of the National Association in New York.

What Birds Will Nest in Houses

The undersigned takes this opportunity to thank those who have responded to his request, in a previous issue of BIRD-LORE, for experience in attracting birds around houses, for use in the preparation of a pamphlet on this subject for the Audubon Society. He makes one more request regarding a special point. In this connection. He has found only one record of each of the following species nesting in bird-houses,—Screech Owl, Carolina

Chickadee, Tufted Titmouse, Crested Flycatcher, and no record of any of the Woodpeckers or Nuthatches using artificial houses for nesting. The undersigned will be very grateful to hear from any one who has had any experiences with the nesting of any of these birds around their homes.—GILBERT H. TRAFTON, *Clifton, N. J.*

Protection for Snowy Herons

The very important discovery made by Mr. Herbert R. Sass, that the Snowy Heron had reëstablished itself in South Carolina, as reported on pages 160–162 of the current volume of BIRD-LORE, will entail upon this Association a very considerable expense, which will have to be provided for before the breeding season of 1909. While the problem of safeguarding these two important colonies will not be a difficult one, yet it will necessitate a considerable expenditure of money, as it will be necessary to either lease the breeding grounds or purchase them. The Federal Government does not own any land in the thirteen original states, and, therefore, cannot make reservations in any of them. In addition to the amount necessary for purchase or rental, it will also be necessary for us to employ two wardens, as the colonies are so far apart that one warden cannot give them proper protection. Is there not some member of the Association or some reader of BIRD-LORE who will be willing to furnish the funds needed for purchase, rental and care? The numbers of Snowy Herons that are still left in the United States is so small that it is extremely important that each of the few scattered colonies that remain shall receive the most careful protection possible. —W. D.

GREAT BLUE HERON
Flashlight by Wetmore Hodges, on Conway Lake, Mich.

A New Audubon Society

On August 11, 1908, a meeting was held at Wichita, Kansas, of representative business and professional men and women, for the purpose of organizing an Audubon Society in the state of Kansas.

A committee on constitution and by-laws was appointed, and Mr. Richard E. Sullivan, of the United States Weather Bureau, was elected president, and Mr. Frank E. McMullen, secretary.

The organization of this society closes up a gap in our map showing states having Audubon Societies, and we trust that, before the end of the next legislative session in Kansas, we shall be able to report that this state also has adopted the model law protecting non-game birds.

Progress in South Dakota

For the first time in years, the birds upon the Federal reservations of South Dakota have had a chance to rear their young. At the request of Charles E. Holmes, President of the South Dakota Audubon Society, President Roosevelt issued, June 11, 1908, the following regulations governing the killing or taking of song- or game-birds on all of the reservations in the state:

"Under the authority conferred by section 463 of the Revised Statutes of the United States, the following regulations to govern the killing or taking of song- or game-birds within the limits of the Lower Brule, Crow Creek, Standing Rock and

Cheyenne River, Indian Reservations, South Dakota, are hereby promulgated:

"All Indians, including mixed bloods, are forbidden to shoot or kill any Prairie Chicken, Pinnated Grouse, Sharp-tailed Grouse, Ruffed Grouse, Woodcock, or Quail between the first day of January and the first day of September following, or any song-bird or insect-eating bird at any time, excepting Crows, Blackbirds and Sparrows.

"All Indians, including mixed bloods, are forbidden to shoot or kill any Wild Duck, Wild Goose, Brant, or Wild Crane, between the first day of May and the first day of September following, or to shoot or kill any Plover or Curlew, between the fifteenth day of May and the first day of September following.

"It is hereby forbidden to kill or shoot at any time any Wild Duck, Goose, or Brant, with any swivel gun, or other gun, except such as is commonly shot from the shoulder, or in hunting such birds to make use of any artificial light or battery.

"It is hereby forbidden to use or employ any trap, snare, net, or bird-lime, or medicated, drugged, or poisoned grain or food, to capture or kill any of the birds mentioned above.

"It is also forbidden to wantonly destroy any nests or eggs of any song- or game-birds.

"During the open season, only Indians residing on the reservation will be permitted to shoot or kill game-birds thereon, and then only for the purpose of subsistence.

"The Secretary of the Interior is hereby directed to cause to be issued such orders or instructions to the United States Indian agents, or other persons in charge of the above-named reservations, as may be necessary to carry out these regulations."

Mr. Holmes says: "Spring shooting has got to go. We shall settle that at the next session of the legislature. Our game laws are being enforced better than ever, and we are gaining in membership and accomplishment right along. A book upon birds has been placed in very many of the school libraries of the state, probably 50 per cent of them, and will go into most of the others."

Massachusetts Notes

On July 10, 1908, I visited the now well-known colony of Least Terns at Katama Bay, in company with the Rev. Albert Hylan and Deputy Fish and Game Commissioner Savery. This colony, which was believed to be the last one remaining in New England, has moved, this year, toward the point where the beach is low, and the tides sometimes sweep over it. Mr. Savery tells me that there were between forty and fifty birds there in the spring, and that most of the birds had eggs; but, during a high June tide, the sea swept the beach, and the birds were obliged to nest again. We counted twenty-four birds here at one time, and were satisfied that there were fully thirty, as others were nesting further up the beach. Twelve nests were found, with one to three eggs each, and two young just hatched were seen. Six eggs were found in each of two nests, but possibly they were placed there by some of the many visitors at the beach. Cat tracks were seen, and evidently the birds are much disturbed. Probably their eggs and young are trodden upon by people who visit the beach. A native boatman informed me that city boys, who go gunning on the beach in July and August, shoot the mother Terns as they hover over their helpless young. Apparently this colony of Least Terns is diminishing in numbers; it should be given better protection. If the beach were purchased and a warden kept there through the summer to prevent shooting, and to kill marauding cats, no doubt the number of birds would increase.

I visited many islands and beaches during the month of July, and, judging from my experience, the Least Terns are now slowly increasing in numbers in Massachusetts. A few birds were breeding in each of several localities, and two colonies of about fifty birds each were seen. All told, 173 birds were counted, and possibly

there are 200, as some were probably away fishing during my brief visits. This estimate does not include the young this year, as they are such adepts at hiding that it was impossible to find them all during my short stops.

Under protection, the Common Tern and the Roseate Tern are increasing annually in numbers, and are now breeding again on coasts and islands whence they were driven years ago by the feather-hunters. Conservative estimates of the number of birds seen at the principal islands this year, give Muskeget 10,000; Penikese, 7,000; the Weepeckets, 5,000; Ram Island, 1,200; Gull Island, 700; Skiff's Island, 300. It is impossible to estimate the number of Roseate Terns as compared with the Common Tern, but the largest numbers of Roseate Terns were seen on Muskeget and Gull Island. The Muskeget Terns are well protected by a resident warden during the breeding season, but there are cats at the life-saving station there. Dr. Parker, Superintendent at the Massachusetts State Leper Hospital at Penikese, protects the birds there; although he considers them a great nuisance, as they nest in the mowing fields and the corn fields, preventing seasonable cutting of the grass and requiring an extra man, while cultivating corn, to hold the horse, which is continually frightened by the angry birds. Common Terns are now breeding along the coast of Martha's Vineyard, on islands in Buzzard's Bay, about Cape Cod, and even along the North Shore.

The few Laughing Gulls that were saved from the feather-hunters by the protection afforded them on Muskeget have so increased that there are now at least one thousand birds in two colonies there. A few were seen on Gull Island, Chappaquidick, Martha's Vineyard and Monomoy, but no eggs or young were found except on Muskeget. A few Herring Gulls appear to stay on Skiff's and Gull Islands, but do not breed.

There was considerable mortality among the young of the Common Terns everywhere; some had their heads torn off by cats; others died of disease; on Penikese, some were trampled by cattle and sheep and a few had been shot, but, nevertheless, the steady increase of the birds is a great object lesson in the efficacy of bird-protection.

During my visit to Katama Bay I saw only ten adult Piping Plover actually breeding, and the entire number seen on the Massachusetts coast in July did not exceed twenty birds. Very small young birds were seen in July and August. The laws of Massachusetts still allow the shooting of these birds in these months; and, while such laws are allowed to remain on the statute books, the only possible hope for the salvation of the birds lies in purchasing their breeding grounds and protecting them there.—E. H. FORBUSH.

Notes from North Carolina

The storm which recently visited the North Carolina coast, extending over a period of five days, from July 28 to August 1, was more destructive to the breeding sea-birds than any storm of which we have had previous experience in that territory. Coming, as it did, at the very height of the nesting season, the loss of eggs and young birds newly hatched was truly appalling. The six, low, sandy islands occupied by the birds were completely swept by the waves, and all the eggs and young birds, as yet unable to fly, were carried away. N. F. Jennette, of Cape Hatteras, who is the chief warden of the territory, estimates the loss at not less than 10,000 young birds and eggs.

Early in the season, the colonies had been disturbed by a storm which had so delayed them that only a few hundred young birds were able to fly when the storm of July 28 came. The bodies of more than one thousand young Terns were washed ashore near Cape Hatteras, and Warden Jennette reports that for days the old birds hovered over the bodies of their offspring, alighting among them and bringing them food. The storm also damaged the islands; for example, over one-third of Royal Shoal is now below

sea-level. Our patrol boat "The Dutcher," was also severely damaged, and, as a result, has since been out of commission most of the time. A careful estimate of the number of sea-birds actually raised the past summer is as follows:

Royal Terns	400
Wilson's Terns	700
Black Skimmers	650
Laughing Gulls	750
Least Terns	566
Cabot's Terns	25
	3,091

T. GILBERT PEARSON.

RESERVATION NOTES

Tortugas Reservation

At last we have a good colony of nests of the Least Tern on both the northern and southern ends of Loggerhead Key.

The rats are so reduced that I cannot catch more than one or two each week. They seem to be unable to resist a guillotine trap baited with smoked herring.

I doubt if the birds will lose any of their young, and, being now empowered to protect them, I hope to have a fine colony here in a few years.—ALFRED G. MAYER, July 13, 1908.

Inspection of Breton Island Reservation, Louisiana

July 22.—Visited Barrel Key, the easternmost point of a shell reef south of Creole Gap. About seventy-five Least Terns, flying over the Key, were observed here, and two newly hatched birds of this species were found on the broken shell. Captain Sprinkle had previously visited this Key and estimated the number of birds at about 200 adults, and had found several young birds on the Key.

At noon we visited Martin Island Key, and found approximately 400 adult Skimmers and about 100 nests, averaging three eggs, or young, to each nest. The proportion of young to eggs was about one to three. Most of the young were newly hatched, and the sun caused a heavy mortality among them; at least 25 per cent of these appeared to have died in this way.

July 23.—Spent the day at Southwest Harbor Key. Young Royal Terns, three to four weeks old, and just learning to fly, were massed together on the beach. There were about 2,500 of these. The Cabot's Terns were all on the wing, and the majority of those present appeared to be adults. The adult strength of this colony at the beginning of the season, according to Captain Sprinkle's estimates, was about 2,500 each of Cabot's and Royal Terns. About 1,000 adult Royal Terns were present at this time.

July 24.—Left anchorage at Southwest Harbor Key at 7 A. M. Laid out a direct course to Battledore Island, due southwest., wind east; arrived at 1.30 P. M. Of Black Skimmers, adults on the wing, estimated the number at about 2,500. There were probably 1,000 young Skimmers about ready to fly, and 300 Skimmer nests averaging two eggs, young, or young and eggs, to the nest.

About 1,000 adult Laughing Gulls present and 2,000 young, most of them able to fly. There was an equal number of adult and young Royal Terns, most of the latter about ready to fly.

The number of Caspian Terns was not over twenty; several were guarding nests containing either eggs or newly hatched young. Cabot's Terns had nearly 500 eggs and young. There were probably 300 adults present. Louisiana Herons had nearly completed incubation, while many large nestlings were found. The total number of adults and young was estimated at 500.

Forster's Terns had practically finished their nesting, and few were seen about the island.

After exploring Battledore Island, we sailed to Hog Island, and landed on the easternmost of the three parts into which it has been cut. There were few birds here, but Captain Sprinkle had noted many at the beginning of the season, and this island, with protection, will doubtless prove a valuable nesting-place.

July 25.—After an all-day sail through squalls and light winds, we made Dutcher's Island an hour before sundown. An examination of this reservation showed that all the Louisiana Herons had left their nests. Of old and young there were fully 4,000. There were about twenty Snowy Herons on the island. There were about 1,500 Gulls about the island at the time of this visit.

July 26.—Stormy all day; fearing very heavy weather outside, Captain Sprinkle advised returning to Pass Christian, where we arrived at 2.30 P. M., having left Dutcher's Island at 7 A. M., and being unable to visit Little Deadman Islands, 10 to 55 in Eloi Bay, Islands 4 to 9 in Morgan Harbor, Mitchell's Key, Sam Holmes, Brush and Sundown Islands. Estimates made by Captain Sprinkle of the number of birds present on these various islands at the time of his previous inspection are given below:

July 15.—*Sundown Island:* 500 Laughing Gulls' nests, eggs all hatched; 100 Foster's Terns' nests, young birds all flown.

July 15.—*Brush Island:* 200 Laughing Gulls' nests, eggs all hatched; 500 Skimmers' nests, eggs all hatched.

July 16.—*Sam Holmes Island:* 1,000 Laughing Gulls' nests, eggs all hatched.

July 16.—*Mitchell's Key:* 200 Skimmers' nests, eggs all hatched; 100 Laughing Gulls' nests, eggs all hatched.

July 16.—*Islands 4 and 5, Morgan Harbor:* 300 Louisiana Herons' nests, eggs all hatched, young commencing to fly; 2,000 Laughing Gulls' nests, eggs all hatched; 50 Grosbeaks' nests (Black-crowned Night Heron), eggs all hatched; 75 Forster's Terns' nests, young flying.

July 16.—*Islands 6 to 9, Morgan Harbor:* 12,000 Laughing Gulls' nests, eggs all hatched; 1,300 Louisiana Herons' nests, young flying; 300 Forster's Terns, young flying; 12 Snowy Herons' nests, young all grown.

July 17.—*Islands 10 to 15, Eloi Bay:* 4,700 Laughing Gulls' nests, eggs all hatched.

July 17.—*Little Deadman's Island:* 200 Laughing Gulls' nests, eggs all hatched; 25 Caspian Terns' nests, eggs all hatched.

Summary of birds bred on islands of Breton and Louisiana Audubon Reservations, 1908:

Black Skimmer—	
Martin's Island Key	225
Battledore	1,600
Mitchell's Key	200
Brush Island	500
	2,525
Laughing Gull—	
Battledore	2,000
Dutcher's Island	1,500
Little Deadman's Island	500
Islands 10 to 15, Eloi Bay	10.000
Island 4 and 5, Morgan Harbor	4,000
Islands 6 to 9, Morgan Harbor	25,000
Mitchell's Key	200
Sam Holmes' Island	2,000
Brush Island	400
Sundown Island	1,000
	46,600
Royal Tern—	
Southwest Harbor Key	2,500
Battledore	2,000
	4,500
Cabot's Tern—	
Southwest Harbor Key	2,500
Battledore	500
	3,000
Caspian Tern—	
Battledore	20
Little Deadman	25
	45
Forster's Tern—	
Sundown Island	125
Islands 4 and 5, Morgan Harbor	100
Islands 6 to 9, Morgan Harbor	400
	625
Least Tern—	
Barrel Key	50
Snowy Heron—	
Dutcher's Island	20
Island No. 7 (Job's Island)	20
	40

Black-crowned Night Heron—

Islands 4 and 5, Morgan Harbor	200
Dutcher's Island	20
	220

Louisiana Heron—

Battledore	200
Dutcher's Island	2,500
Islands 4 and 5, Morgan Harbor	1,200
Islands 6 to 9, Morgan Harbor	5,000
	8,900

H. H. KOPMAN, Field Agent.

Inspection of East Timbalier Reservation, Louisiana, August 3, 1908

Black Skimmer.—Though adults of this species, numbering fully 7,500, were present on the island, not a single young bird was found, and the nests during the latter part of the season, at least, had evidently been disturbed.

Laughing Gull.—At least 35,000 birds of this species were present, and a large proportion of these were young, just learning to fly. The crowding of the nests and the abundance of the young were almost incredible.

Louisiana Heron.—Nearly all of this species had left, but former warden, W. H. Oliver, told me that a very large number of this species had been bred on the island, probably as many as 10,000.

Royal Tern.—About 1,000 adults and a few young on the beach almost ready to fly were noted.

Least Tern.—A few were seen about the island, and Mr. Oliver was sure the species had bred there.

Snowy Heron.—About ten were seen on the island, and Mr. Oliver reported that about forty of this species, as well as some of the Black-crowned Night Heron had been bred there.

Brown Pelican.—A large number—1,500 to 1,800—were feeding on the spits and bars. None had nested on the island. —H. H. KOPMAN, Field Agent.

Three New Reservations

During the month of August, President Roosevelt, at the request of this Association, issued orders establishing three new reservations; one to be known as the Key West Reservation, the application for which was based upon a report made by Capt. Charles G. Johnson, keeper of the Sand Key Light Station, near Key West, Florida.

The applications for the Klamath Lake and Lake Malheur Reservations were based on the reports of our field agent, Mr. William L. Finley, and his associate, Mr. Herman T. Bohlman, a portion of which was published in BIRD-LORE, vol. viii, 1905, page 336 and the result of a trip they made during the present season as the representatives of this Association.

"Our start was made from Portland, Oregon, and the entire trip between that city and the Malheur Lake region was made by automobile, over a thousand miles being covered during the trip. This was necessary, as the lake is 135 miles from the nearest railroad station. A canvas boat was used on the lake, as it is very shallow, the average depth being not over three feet. This region, beyond question, is the most promising of the known fields for the protection and preservation of water-fowl and several other birds, that exist in the United States. The water surface in the proposed reservation covers an area of about 120 square miles. Many thousands of water- and shore-birds breed annually, and countless other thousands, including swans, use the lakes as resting- and feeding-places during the spring and fall migrations. Among the breeding birds are Canada Geese, of which over a thousand young birds were counted within the distance of one mile along the shore, many species of Wild Ducks, Ring-billed, California and other Gulls, White Pelican, Farallone Cormorant, Caspian, Black and Forster's Terns, Eared Grebe, White-faced Glossy Ibis, Great Blue and Night Herons, Coot, and many smaller shore-birds. Many large colonies of the species named were discovered.

"Until a few years ago, thousands of Snowy Herons made this their summer home, but we saw *only one bird*. The plume-hunters are responsible for the disappearance of this beautiful species; they killed in the summer of 1886 enough birds to produce $8,000 worth of plumes. The slaughter was continued in 1887, 1888, and 1889, and as high as $400 a day was realized. When we visited Klamath county in 1905, we thought that the Grebe-skin traffic had been practically stopped; however, we have facts now to show that plume-hunters have been at work continually since, and have been shipping plumage direct to New York. We have questioned many of the old settlers and others as to the abundance of water-fowl, and we find them plentiful yet. They count Ducks, Geese, and Swans by acres here, not by numbers, during the migratory period, but it is the unanimous opinion that the numbers do not compare with even six or eight years ago. The birds are going, and there is no question about it. *We must have a good, big reserve down here.* It will make the most important reserve in the West, and, with Klamath reserve, will equip Oregon and the Pacific coast to preserve the water-fowl."

The three new reservations just set aside by President Roosevelt will necessitate a very large increase in our outlay for wardens' service. For the Key West reservation, it will only be necessary to employ a guard from three to four months, covering the breeding period, unless further investigation shows that the Keys are used as a bird resort, when the warden would have to be employed for a longer period. At Klamath Lake Reservation, it will be necessary to employ one good man with a first-class power-boat, by the year. To properly guard Malheur Lake Reservation will take at least two good men, and possibly three. Lakes Malheur and Harney are so shallow that an ordinary power-boat cannot be used, and the wardens must depend on row-boats. Mr. Finley suggests that it might be possible to use a small stern-wheel boat. One man cannot guard one hundred and twenty square miles of territory, when he has to depend on a row-boat for transportation.

These two reservations have been such a mine of wealth, in the past, to plume-hunters and market-shooters that they are not going to abandon their illegal traffic without a desperate struggle. It will, therefore, be necessary for this Association to select not only men of the very highest character and intelligence, but those who have the hardihood to fill the position. Plume-hunters and market-shooters in that section are law-breakers, and, when cornered, rarely hesitate to shoot, even though a human life is the sacrifice. This Association now has an opportunity to create an ideal wild-bird breeding-place, probably the greatest in the United States. To do it, however, is going to entail a large expense, which must be provided for. At the present time, the resources of the Association are strained to the utmost limit, and, therefore, the money to properly guard the new and greatest of our reservations must be furnished by new people.

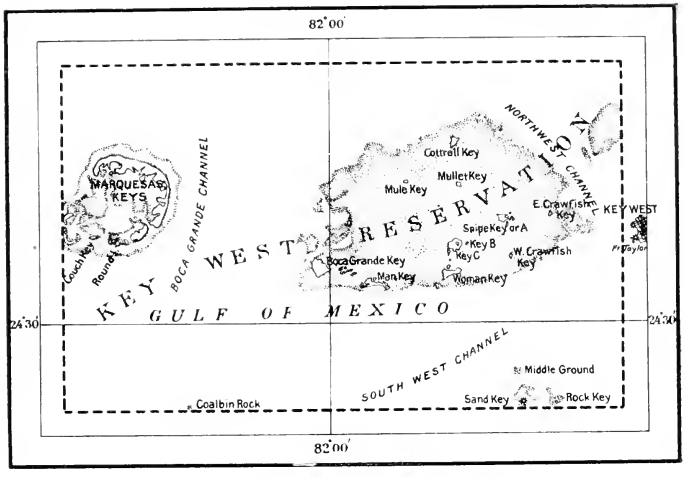
The sportsmen of the country should consider it a duty as well as a privilege to furnish means to guard these great breeding and feeding grounds from market-hunters. The public ought to be interested in the economic as well as the esthetic aspect of the case, and should willingly furnish all the financial support the Association needs. Funds are wanted at once, as the wardens should be on the ground at this time, in order to prevent shooting during the present autumn and the early winter, when the birds are on the southward migration. The question is often asked, "How can I give wisely." No wiser or greater benefaction can be proposed than to give to this Association a large sum, to be known as the Warden Fund, the interest from which to be used in perpetuity to pay the salaries of the brave men who spend months in loneliness and hardships to guard the birds of our land from ruthless men.—W. D.

KEY WEST RESERVATION

For Protection of Native Birds

FLORIDA

Embracing all Islands segregated by broken line and designated "Key West Reservation"



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
Fred Dennett, Commissioner

Executive Order

It is hereby ordered that all keys and islands of the Florida Keys group, between latitude 24° 27′ and 24° 40′ north, and longitude 81° 49′ and 82° 10′ west from Greenwich, as the same are shown upon coast survey chart No. 170, and located within the area segregated by the broken line shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding ground for native birds. This reservation is subject to, and is not intended to interfere with, the use of "Marquesas Keys" for life-saving purposes, reserved by Executive Order of March 12, 1884, nor with the use of "Man Key" and "Woman Key," reserved for naval purposes by Executive Order of June 8, 1908; nor is it intended in any manner to vacate such orders. This reservation to be known as Key West Reservation.

[No. 923] THEODORE ROOSEVELT.

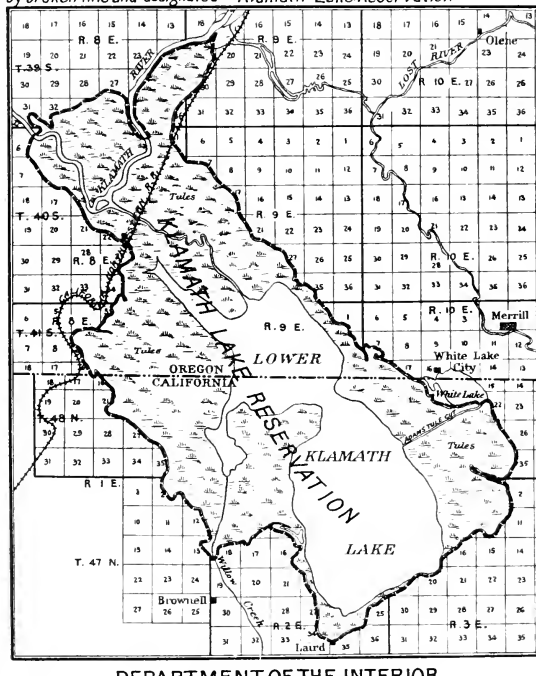
The White House, August 8, 1908.

KLAMATH LAKE RESERVATION

For Protection of Native Birds

OREGON AND CALIFORNIA

Embracing all islands in Lower Klamath Lake and all Marsh and Swamp Lands in Tps. 39, 40 and 41 S. Rgs. 8 and 9, and Tp. 41 S. R. 10 all East of Willamette Mer. Ore. and in Tps. 47 and 48 N. Rgs. 1, 2 and 3 East of Mt Diablo Mer. Cal. segregated by broken line and designated "Klamath Lake Reservation"



DEPARTMENT OF THE INTERIOR

GENERAL LAND OFFICE

Fred Dennett, Commissioner

Executive Order

It is hereby ordered that all islands situated in Lower Klamath Lake, and the marsh and swamp lands unsuitable for agricultural purposes in townships thirty-nine, forty, and forty-one south, ranges eight and nine, and township forty-one south, range ten, all east of the Willamette Meridian, Oregon, and in townships forty-seven and forty-eight north, ranges one, two and three east of Mount Diablo Meridian, California, and situated within the area segregated by a broken line, as shown upon the diagram hereto attached and made a part of this order, are hereby reserved and set aside for the use of the Department of Agriculture as a preserve and breeding-ground for native birds. The taking or the destruction of birds' eggs and nests, and the taking or killing of any species of native bird for any purpose whatever is prohibited, and warning is expressly given to all persons not to commit within the reserved territory any of the acts hereby enjoined. This order is made subject to and is not intended to interfere with the use of any part of the reserved area by the Reclamation Service acting under the provisions of the act approved June 17, 1902, or any subsequent legislation. This reserve to be known as Klamath Lake Reservation.

THEODORE ROOSEVELT.

The White House, August 8, 1908.

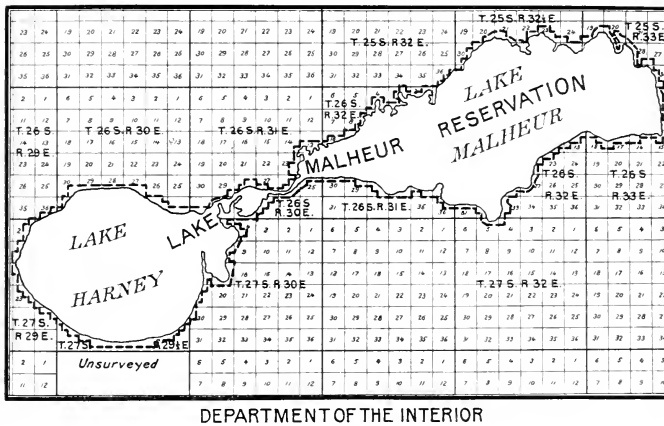
[No. 924]

LAKE MALHEUR RESERVATION

For Protection of Native Birds

OREGON

Embracing all least subdivisions touching the shore lines of Lakes Malheur and Harney and their connecting waters in Tps. 25 S. Rgs. 32, 32½ and 33, Tps. 26 S. Rgs. 29, 30, 31, 32 and 33, and Tps. 27 S. Rgs. 29, 29½, 30 and 32 all east of Willamette Meridian, Oregon, segregated by broken line and designated "Lake Malheur Reservation"



DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE
Fred Dennett, Commissioner

Executive Order

It is hereby ordered that all smallest legal subdivisions which touch the shore-line of Lakes Malheur and Harney and the streams and waters connecting these lakes in township twenty-five south, ranges thirty-two, thirty-two and one-half and thirty-three; township twenty-six south, ranges twenty-nine, thirty, thirty-one, thirty-two and thirty-three; township twenty-seven south, ranges twenty-nine, twenty-nine and one-half, thirty and thirty-two, all east of the Willamette Meridian, Oregon, together with all islands and unsurveyed lands situated within the meander lines of said lakes and connecting waters, as segregated by the broken line shown upon the diagram hereto attached and made a part of this Order, are hereby reserved, subject to valid existing rights, and set aside for the use of the Department of Agriculture as a preserve and breeding-ground for native birds. The taking or destruction of birds' eggs and nests, and the taking or killing of any species of native bird for any purpose whatsoever, except under such rules and regulations as may be prescribed by the Secretary of Agriculture, is prohibited, and warning is expressly given to all persons not to commit within the reserved territory any of the acts hereby enjoined. This reserve to be known as Lake Malheur Reservation.

[No. 929] THEODORE ROOSEVELT.

The White House, August 18, 1908.

1. Derby Flycatcher
2. Beardless Flycatcher
3. Olive-sided Flycatcher
4. Coues's Flycatcher

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. X NOVEMBER—DECEMBER, 1908 No. 6

The Sea Birds' Fortress

By A. C. BENT

WAY off in the middle of the stormy, fog-bound Gulf of St. Lawrence stands lonely Bird Rock, twenty-five miles north of the Magdalen Islands and sixty miles from Cape Breton.

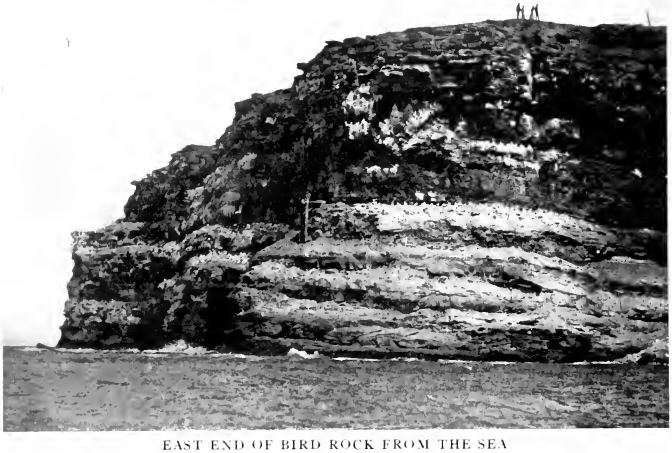
It forms the northeastern end of a chain of dangerous ledges, lying in the path of vessels passing in and out of the St. Lawrence River, and is important enough to be protected by a first-class lighthouse. Its red sandstone cliffs rise for a hundred feet or more straight up from the sea, and even on the smoothest day the waves thunder against its base, as they rise and fall with the ocean swell.

The only human inhabitants of this isolated rock are the lighthouse keeper and his family. They are visited twice a year by the government supply boat, bringing provisions, newspapers and mail, but, aside from this, they seldom have any communication with the outside world unless some stray fisherman lands there from necessity, or some wandering bird student comes along to study the sea birds in their summer home.

During the long winter nights, when the gulf is closed to navigation, they have nothing to do, no light to maintain and no fog whistle to manage. Yet they say they feel their loneliness even more in the summer when they longingly watch every passing sail, hoping for visitors, but are generally doomed to disappointment. No wonder that they welcome the return of their feathered friends in the spring, and no wonder they were glad to see us.

We had engaged an experienced mariner, the owner of a staunch schooner and the hero of many a successful smuggling trip, to take us from the Magdalen Islands to Bird Rock on a certain date; but on our arrival at Grand Entry, the northernmost port, we found, to our disgust, that he had just gone off on a three weeks cruise elsewhere, without the slightest consideration of his promise to us. The only other available craft, fit to make the trip, which is a dangerous one at best, was a sea-going tug which, on investigation, we found was hopelessly disabled. We were face to face with the two alternatives, to give up the main object of our trip and go home beaten, or to make the trip in an open boat, a hitherto unaccomplished feat, except by a few hardy fishermen. But we secured the services

of a daring, young lobster fisherman, strong, hardy and experienced, who had weathered the storms of twenty-four hard northern winters, and who volunteered to take us, as soon as a favorable opportunity arrived. After days of fog, rain, storms and gales, all too frequent on that coast, the looked-for opportunity came when a light westerly wind had smoothed down the sea after an easterly blow, and we started in his seaworthy little boat, seventeen feet long, carrying two small sprit-sails. Though we could plainly see Bird Rock, twenty-five miles away, a red spot on the northern horizon, prudence suggested that we sail first to Bryon Island, only twelve miles away, where we could find a safe harbor, in case of necessity, and push on to Bird Rock the next day, if conditions were



EAST END OF BIRD ROCK FROM THE SEA

favorable. But we were persuaded to change our minds by the "King of Bryon Island," a venerable patriarch, the owner of the island, and a veritable monarch of all he surveys, for he controls the most valuable lobster-fishing rights of that region, as well as the destinies of the fishermen; he would like to have kept us over night, with a view to interesting capitalists from the states in the purchase of his profitable estates, but with true regard for our interests he advised our pushing on that night, as he thought it would blow a gale in the morning, and experience proved that he was right. So, laying in a stock of bread and a few bottles of water, we started at 5:30 that night for the last leg of our journey. It was well that the sea was smooth, for to land on that rugged Rock is bad enough at any time, and when there is any sea running it is impossible.

It seemed a long twelve miles as we plied the oars to help us along in the

light breeze, and the sun was fast sinking to the horizon, illuminating the great red cliffs of Bird Rock, lined with white rows of nesting Gannets; we were still some distance from it at sunset, and we were not anxious to pick our way among its dangerous rocks after dark. But our skipper was equal to the task when the exciting moment came; as the great cliffs towered above us in the moonlight, we saw a lantern coming down the ladder to show us where to land, and we ran in among the thundering breakers; there was a crash which brought us to our feet in terror, as we struck an unseen rock, but the next wave carried us over it and landed us among the rocks and flying spray. We were overboard in an instant, struggling in the surf, for the boat was rapidly filling, as wave after wave broke over us. A few moments of rapid work served to unload our baggage and attach a stout line to the boat, the signal was passed aloft, and the powerful steam winch above hauled her up high and dry. We then had time to shake hands with our genial host, the keeper of the lighthouse, who had been watching us ever since we left Bryon Island. Loading our baggage in the crate to be hoisted up, we climbed up the long ladders, among clouds of screaming seabirds, over a hundred feet to the top of the rock, where we found a hearty welcome awaiting us from Captain Bourque and his family. No doubt they were glad to see us, for we were the only people who had landed on the rock since last November, excepting some fishermen who visited them in May. It is a lonely life they lead, but they are brave and cheerful souls, and know how to make the best of the surroundings. They live well in spite of the fact that their marketman calls but twice a year. Of course, there were many questions to be asked and much news to be discussed, for which their eager minds were hungry. After supper the festivities began; a graphophone was brought out and a whole trunk full of songs and other music reeled off; one of the girls could play the accordion, which did duty as an orchestra while the rest of us danced, sang and made merry well into the night. It was a great event for them, and we almost forgot that we had come to photograph birds.

But the morning found us out bright and early, moments were golden and not to be wasted in sleep, the wind was blowing a gale, as predicted, and clouds of seabirds were drifting about the rock in a bewildering maze, ten thousand of them in all. There were great white Gannets sailing on long, powerful wings tipped with black, clouds of snowy Kittiwake Gulls hovering in the air, hundreds of swift-winged Murres and Razor-billed Auks darting out from the cliffs, and quaint little parties of curious Puffins perched on the rocks. There was a constant Babel of voices, the mingled cries of the varied throngs, deep, guttural croaks and hoarse grunts from the Gannets, a variety of soft purring notes from the Murres, and sharp piercing cries from the active Kittiwakes, distinctly pronouncing the three syllables for which they are named, as if beseeching us to "keep away" from their precious nests.

Climbing down the ladders to one of the broader ledges, I fired away plate after plate, with a 'Reflex' camera, at the constant stream of Gannets floating

by on broad and powerful wings, riding on the gale without an effort, one of Nature's triumphs in the balancing of forces. I surprised one old fellow fast asleep on the ledge, with his head tucked under his wing; and carried him to the top of the cliff where we could study him more closely. Nearly all the broader ledges were white with nesting Gannets, sitting as close as they could sit on their crude nests of kelp and rockweed, each bird covering one, large, dirty egg, origi-

GANNETS ON THEIR NESTS

nally white but now stained with the red mud from the sandstone rock. They live peaceably enough among themselves, but their awkward movements result in many broken eggs, and they are far from neat in their habits. Carelessness and lack of neatness are characteristic of all the Pelican family, to which the Gannet belongs, and must indicate a low order of intelligence, for birds as a rule are very neat and keep their nests scrupulously clean.

The Gannets show their lack of intelligence in other ways; their brains are very small in proportion to their size, and they are very stupid birds, gawking at the intruder with a most helpless and idiotic expression, or stumbling over each other in their efforts to escape, often rolling the eggs out of the nests in their attempt. How different they are in this respect from the keen-witted Ruffed Grouse, who springs suddenly into the air, covering her eggs as she leaves, and dodging out of sight in an instant. No wonder the Gannets have been clubbed to death on their nests by the fishermen in search of bait, until they are well nigh exterminated from all but the most inaccessible cliffs!

The beautiful little Kittiwake Gulls are birds of another feather, and form one of the most attractive features of Bird Rock. They are cliff-dwellers indeed,

for their nests are scattered all over the perpendicular face of the frowning cliff; every available little ledge or shelf is appropriated by them, and it is remarkable to see how narrow a shelf will serve to support their nests of seaweed; they must be securely built to support the weight of parents and young on such an apparently insecure foundation, and at such a dizzy height above the dangerous rocks and thundering surf. But they seemed to be successful in hatching their two, or sometimes three, speckled eggs and raising the tiny gray balls of down to maturity. A swing over the cliff in the crate was necessary to see them at close quarters, and a most interesting hour was spent in this way.

Standing securely in the stout box we were lifted from the ground, the long arm of the derrick swung outward into space, and we were lowered gradually down the face of the cliff, a novel and delightful way of calling on the birds that were nesting on its ledges.

At first a startled cloud of Gulls flew out and circled about us, protesting that we "keep away," but they soon settled down again on their nests, where we photographed them at our leisure. They were confiding little fellows, and would sit quietly on their little shelves within a few feet of us, turning their beautiful snow-white heads to look at us, but showing no signs of fear. They were the daintiest birds of all with their delicate pearl-gray backs and bright yellow bills, making the prettiest of pictures as they sat upon their eggs, or stood brooding over their tender young protecting them from the sun.

The crate was then lowered to another ledge where a party of Murres were sitting on their eggs. These innocent sea birds build no

KITTIWAKES ON THEIR NESTS

MURRES ON THEIR NEST-SITES

nests at all; their eggs are long and pointed, so shaped that they will roll around in a circle instead of rolling off the narrow ledge, where they are laid on the bare rocks; the eggs are subject to great variations in color, several shades of blue, green and white, handsomely marked with dark brown and black, in spots, stripes and irregular scrawls. We were soon on intimate terms with them as they stood upright in dignified rows, like so many soldiers, or sat upon their eggs and watched us.

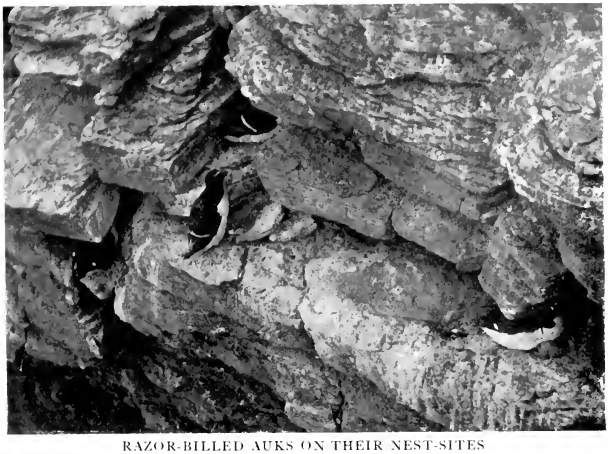
MURRES' EGGS

Most of the Murres were nesting on the lower ledges, which were generally quite inaccessible, though if we had had more time we might have found some way to photograph them.

There were many other interesting subjects for the camera on the top of the rock where the curious little Puffins or 'Sea Parrots' could be seen sitting in little groups on the edge of the precipice, all ready to launch out into space if we came too

near. They were guarding the entrance to their homes—burrows in the soil under the rocks or under the grassy turf. If we had dug them out we should probably have found a bird in each burrow crouching over her single white egg at the farthest end. She would not offer to fly away, and we could easily stroke her back or pick her up, but we must look out for her sharp and powerful beak, which could inflict quite a wound.

On the upper ledges, just below the top of the cliff, the Razor-billed Auks were domiciled, where they had crawled into every available crevice or under every overhanging rock to lay their single eggs on the bare ground. The eggs were not quite so pointed as the Murres,' and were usually white with spots and markings of dark brown and black.



RAZOR-BILLED AUKS ON THEIR NEST-SITES

They were very tame and unsuspicious birds; if we sat still for a few moments near their nests they would fly up and alight within a few feet, eying us curiously and grunting their expressions of satisfaction or disapproval. I should have had some fine pictures of them but for an unfortunate accident by which the plates were spoiled.

One of the features of the trip was our visit to North Bird Rock, three tall pinnacles of red sandstone rock rising out of the sea, three-quarters of a mile away. A dory was lowered in place of the crate and we rowed over, landing with difficulty on a flat rock at the base. A cloud of Kittiwake Gulls flew from their nests on the cliffs as we landed. We managed to scale the first cliff by helping each other up from ledge to ledge, passing the cameras up as best we could. As I raised my head over the top I found myself face to face with a Gannet, in fact a whole colony of them, and a more surprised lot of Gannets I never saw.

The whole flat top of the rock was literally covered with their nests, from which they were beating a hasty, if not graceful, retreat. A few of them held their ground and sat stolidly on their nests until we had photographed them at our leisure. One of the pinnacles was absolutely inaccessible, a secure retreat, its flat top white with nesting Gannets.

But before we had used up all our plates a signal was fired from Bird Rock, warning us to return; the barometer was falling and a blow was not far off; our genial host was sorry to part with us, but prudence suggested that if we would reach the Magdalens in safety, with our frail craft, we must start that night. The two days had been far too short to accomplish all we wanted, but we hurriedly packed up our belongings, bade farewell to our kind friends and started. Parting salutes were fired, handkerchiefs, weaters, and finally table cloths were waved, as the light northeast wind carried us away from Bird Rock, and the four lonely figures on top faded out of sight.

The wind soon died out to a dead calm, we were twenty-five miles from Grosse Isle, darkness coming on and every prospect of a dangerous gale approaching. But we were not helpless, there were two oars in the boat and four of us to man them. It was a hard night's work, with half hour shifts at the oars, but we stuck to it and finally reached the welcome beach at Grosse Isle just before sunrise. We were tired and sleepy, but we had made the first trip to Bird Rock in an open boat.

GANNETS AND NESTS ON NORTH BIRD ROCK

AMERICAN EGRET GROUP IN THE AMERICAN MUSEUM OF NATURAL HISTORY

Background painted by Bruce Horsfall; birds mounted by H. E. [illegible]

The Drumming of the Ruffed Grouse

By EDMUND J. SAWYER

Illustrated by the Author

IN the spring of 1907 I attempted to photograph a Grouse in the act of drumming. I failed, but got several sketches of the birds from life, seeing scores of performances at a distance of forty feet. This was in Franklin county, New York. My second attempt, made the following spring in Chenango county, was more successful, as the accompanying illustrations show.

My method was to go out early in the morning or just before sunset, and, guided by the sound of the drumming, find the logs used by the Grouse. Locating a log well suited to my purpose, I would build a rough shack or "blind," just large enough to cover me while sitting on the ground. The blinds were made of spruce or cedar boughs or slabs of bark, according to the surroundings and material nearest at hand. Several of the shacks were used, all being placed within about twenty feet of the Grouse while drumming. In one case some large slabs of bark, placed against a convenient old board fence at the edge of a wood, formed a neat blind which allowed me to watch a Grouse drum repeatedly, and secure two of the photographs shown, from a distance of eighteen feet. Usually, in order not to frighten the birds, I made the blinds and arranged my camera in position about midday, when the Grouse were most likely to be out of sight and hearing.

In the morning the drumming is generally first heard at daybreak, but a Grouse will often spend the night on or near his drumming log and drum from time to time through the night. In order to witness the drumming in the early morning, therefore, I spent the night in my blind. To watch the Grouse in the afternoon period I entered the blind about three o'clock. It was sometimes two or three hours later before the bird first appeared, and occasionally I waited in vain till sundown.

After once seeing a Ruffed Grouse drum, even from a distance of forty feet, it was difficult for me to conceive how any one could be mistaken at that distance as to the bird's way of performing the act. For the beating of the wings may be easily followed at first,—though their exact outline, of course, is lost during each lightning stroke, and may be seen to remain essentially the same, only faster, till the end.

We will suppose now that we are in a blind, say twenty feet from a drumming log. After being repeatedly deceived into expectation by chipmunks, red squirrels mice and Chickadees, we hear another rustling in the dry leaves which our strained attention does not mistake. It is a measured patter of running feet or a slow tread just heavy enough to crunch the leaves at every step or two, and occasionally snap a dry twig. The next instant a cock Grouse hops to the top of the log; his head is erect; his feathers lie close to his sides and, for a creature as wild as any that haunts the woods, his whole manner shows only serenity,

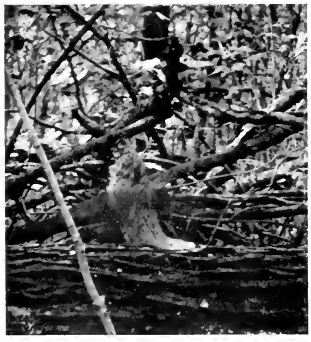
and a modest self-satisfaction. The next instant he turns crossways of the log, the head is raised, the feathers of the neck and the black ruff expanded by the same act, the tail is spread, and at the same time the wings beat the air three or four clearly distinct times with a muffled *whir* at each beat—such is the force of the stroke—and then hang straight down for an instant, as also between the strokes just described. Now begins the part of the drumming which is so familiar to many as a distant rumble and characteristic wood sound. As the interval between the strokes, which at first is about a second, gradually shortens the bird assumes a more and more horizontal position until at the end, when the drumming

DRUMMING RUFFED GROUSE
Enlargement of the following photograph retouched by E. J. Sawyer

has become one prolonged *whir* of the constantly moving wings, the head sets down close to the shoulders. In the latter part of the drumming the outline of the wings is entirely lost in a gray haze which, however, serves to show the extent of their motion; they are held just free from the sides and fluttered rather than flapped at the close of the act. In the first part of the drumming it may easily be observed that the tips of the wings are brought as far forward as the feet and backward about to a horizontal position. The tail lays flat on the log if the latter is large. The only device I can think of which seems calculated closely to imitate the rapid drumming is a soft, yet solid, rubber ball dropped on the top of a velvet-covered wooden vessel. I have often compared the tone

of the wing-beats with the sound made by striking my leg just above the knee with the lower (little finger) side of my clenched hand.

One point which should have prevented the belief that the noise is made by the wings striking the bird's perch is the characteristic uniformity of the sound which is of the same nature as the well-known hum of this bird's wings in flight. It does not vary, as would be the case in thumping against different kinds of wood in various stages of decay.



A DRUMMING RUFFED GROUSE
Untouched photograph from nature

Most of the drumming logs are old and more or less moss-covered; the bark has quite disappeared from many, but they are solid enough to afford the Grouse a good foothold, though often considerably worn away, when barkless and somewhat soft, by long continued use of the grasping feet. When a spot has been used for drumming even a week or two, it begins to have the appearance of a chicken roost. If it is a log, as usual, the ground, especially on one side, and perhaps the top will be fouled at the points where the Grouse stands. There are sometimes half a dozen or more of these drumming spots on one long log; by these "signs" together with a worn or chafed appearance drumming logs may readily and infallibly be known.

The log shown in the photographs was a section sawed from a large tree. It was hollow but otherwise sound. Two similar logs, one end to end with it, the other a rod away, were also used by the same Grouse as drumming-places. The first day I watched him the bird drummed only from the other two logs, while my blind was built nearest and camera focused on the one unused. The next day before the bird appeared in the afternoon I placed sticks over the entire length of two of the logs, leaving untouched the log nearest my blind and camera. After two hours' waiting the Grouse first appeared on one of the brush-strewn logs. He tried his wings in a few places on this log, and then actually drummed, though the tips of his wings brushed the sticks about him. He then walked along the log, gingerly picking his way among the sticks, looking evidently for a better spot, and soon went to the other brush-covered log where he drummed several times. Still hampered by the brush, he finally hopped to the log before my camera where all seemed to his satisfaction, for he remained here a long while, drumming repeatedly. That evening I added enough brush to the troublesome logs to prevent drumming on them, and had no farther difficulty in that way, the Grouse thereafter coming directly to the desired place.

The photograph made of the bird just mentioned, showing a side view,

was taken about the middle of the drumming period and given one second's exposure. My camera, by the way, merely a regular 4 x 5, ten-inch bellows machine, had to be placed with the lens only four or five feet from the subject. It was covered loosely with a green hood and spruce boughs and operated by means of a fifteen-foot tube with bulb, from my blind.

The drumming ended (the entire act lasts about ten seconds) the Grouse immediately raises his head and raises and expands his tail by one motion, which seems involuntary as if from the exhilaration of his late effort, the tail slowly falling again to its usual position. The bird may now stand motionless, apparently listening for several minutes until the drumming begins again as before. I have heard or seen at close range at least a hundred of the performances. Each of these could be described as above, excepting a very few times when, after few preliminary wing beats, the bird suddenly stopped, being interrupted by some unusual sound such as the bark of a dog, scream of a Hawk, snapping of a twig in my blind, or even a sight of me.

CANADIAN RUFFED GROUSE
Photographed at Snoeshoe Lake Me., by Henry R. Carey

The Use of a Blind in the Study of Bird-Life

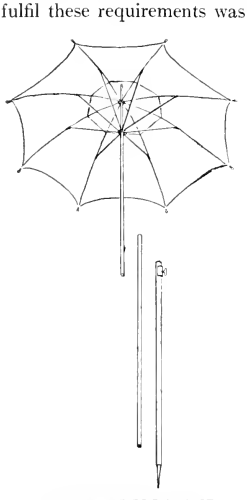
By FRANK M. CHAPMAN

IF one would study the habits of birds under natural conditions it is of the first importance that they be unalarmed by one's presence. While in some comparatively rare instances a species may not have acquired fear of man or may, fortunately, have learned to trust him, man's presence is always a more or less disturbing element, if not to the bird in question, at least to other species with which it may chance to become associated. With bird as with man, the consciousness of being under observation induces more or less artificialty of manner, and if one would gain true insight into either bird life or human life, ones subject should be unaware that they are the objects of scrutiny.

It sometimes happens that one finds, already existing, a place which affords effective concealment, but this is exceptional and, in the end, it will be found necessary to employ an artificial blind.

I must confess that when writing 'Bird Studies with a Camera' I did not appreciate the necessity for a hiding-place which not only permitted one to photograph but to see. But whether or not one uses a camera, a blind will be found to be of the greatest assistance in securing the proper point of view.

It is the first requisite of such a blind that it be easily transportable; it should also be inconspicuous, and so simple in construction that it may be quickly erected. The results of my first attempt (1900) to make a structure which would fulfil these requirements was a ridiculously complicated affair of upright sticks and iron hoops around which was placed a canvas, painted in the somewhat distant semblance of bark. This affair was supposed to be an imitation tree trunk, and it illustrates how far one may be carried on the wrong road by a false premise. The fundamental error in this case was the belief that the blind must be like some object in nature. As a matter of fact, this is not necessary. It should be as unconspicuous as possible, and it is often more quickly accepted if it be partly disguised with reeds, bushes or vines. But its chief virtue is its immovability. It may excite suspicion for a time, but its inanimateness finally wins and, to the birds, it becomes a part of the landscape to be perched on if convenient.



THE UMBRELLA AND SUPPORTING RODS

This at least has been my experience with the blind from the shelter of which most of my studies of birds have been made. In brief, this blind is an umbrella opened within a bag long enough to fall to the ground. It may be described in detail as follows:

The Umbrella.—The umbrella employed in making an observation blind, is known to the trade as a "sign" umbrella. It agrees with the normal variety in size but differs from it in having a large hole in the center. This permits a current of air to pass through the blind—a matter of the first importance when one spends hours in the little structure on beach or marsh, where it is fully

UMBRELLA BLIND SET NEAR WARBLING VIREO'S NEST
In this blind an ordinary umbrella was employed, the covering being sewed to the edge
(Shoal Lake, Man., June, 1901)

exposed to the sun. The "stick" of this umbrella is a metal tube without the usual wooden handle.

The Supporting Rod.—The umbrella is supported by two brass tubes each of the same length as the umbrella, or thirty-three inches. The larger is shod with a steel point, by the insertion of a small cold chisel or nail punch, which is brazed in position. It can then be readily driven into the ground. At the upper end, a thumb-screw is placed. The smaller tube should enter the larger snugly and should, in turn, be just large enough to receive the umbrella rod, which will enter it as far as the spring "catch". The height of the umbrella may therefore be governed by the play of the smaller tube in the larger, while the thumb-screw will permit one to maintain any desired adjustment; as one would fix the height of a music rack.

The Covering.—If the blind is to be used about home, a light denim may be employed; if it is to see the harder service of travel and camp-life, a heavier grade of the same material will be found more serviceable. In the former case, the denim may be sewed to the edge of the umbrella, which then has only to be

opened and thrust into the brass tube which has been set in position, when the blind is erected; an operation requiring less than half a minute.

When traveling, it seems more desirable not to attach the walls of the blind to the umbrella. The covering then consists of several strips of material sewed together to make a piece measuring 6½ x 11½ feet wide. The two ends of this piece are sewed together at what then becomes the top of the blind, for about two feet. The unjoined portion below, becomes the door of the blind. Openings should be cut in the opposite side, for the lens and for observation. A strong draw cord is then run about the top edge of the cloth, so that, before inserting and opening the umbrella, one can draw it up, as one would the neck of a bag, until the opening corresponds in size to that in the top of the umbrella. The draw cord should be long enough to serve as a guy or stay. This covering places less strain on the umbrella and may be packed in smaller space than one which is sewed to the umbrella and, when in camp, it may be used to sleep on, as a covering, as a shelter tent or in a variety of ways.

The color of the umbrella should be leaf-green. The covering should be sand- or earth-colored and should be dyed leaf-green on its upper third, whence it should gradually fade to the original cloth color at about the center. Such a color scheme conforms to Abbott Thayer's law that animals are darkest where they receive the most light, and palest where they are most in shadow; and therefore renders the blind much less conspicuous than if it were uniformly green or gray. It is not amiss to run belts of braid about the covering,sewing them to it at intervals and thus forming loops in which, when desired, reeds or branches may be thrust.

In erecting the blind, if circumstances permit, it is desirable to place the "door" toward the wind to insure better ventilation. Where the situation is exposed, an additional stay or two may be required. If the camera box is not strong enough to sit on, a collapsible artist's camp-stool should be added to the outfit. One cannot spend a half day in such close quarters and observe and record to advantage unless one is comfortably seated. This structure weighs only a few pounds and when folded may easily be slung on one's back, becoming, in fact, a quickly available "cloak of invisibility" from the shelter of which one may see unseen. A blind of this type is shown in position in BIRD-LORE for August, 1908, in the article on Fish Hawks.

A Thrasher Friend

By EMELINE MADDOCK

IT was during my daily pilgrimages to the wood at the edge of the pasture at Spring Lake, New Jersey, where I went to study the birds, that I discovered a Thrasher, among the many that frequented the spot, which seemed peculiarly tame. He never hesitated an instant in coming over to the "lunch-table" which I spread daily for the birds' refreshment, to partake of its goodies. There was something almost uncanny about this little Thrasher; in the gentle fearlessness of his intent gaze, and the sweet intelligence shining in his amber eyes. At first I mistook him for one of the Thrashers who had built a nest in a sapling over my shoulder, but soon found out my mistake,—for, though all Thrashers looked alike to me at the beginning of the season, I could defy any Thrasher at the end of the summer to puzzle me into inability to identify him from any other of his species.

The pair of nesting Thrashers, of course, resented the presence of the birds attracted to the spot by the food I brought for them, and especially disliked any

A THRASHER FRIEND

of their own species about, and they chased away my little tame Thrasher so often that I wondered at the persistency of the latter in returning daily to the place. At last, his gentle manner lead me to wonder if he could be induced to eat from my hand; so one day, I began the taming process by placing a piece of cornbread on the tip of my boot as I sat Turk fashion on the ground, and after a little hesitancy and some pretty, sidling motions, he jumped up on my foot, and ate the piece eagerly. This was the beginning of our friendship, and it needed little persuasion after this to induce him to eat from my hand. Several times he came up on my knee to eat the cornbread I held, even when there were some on the

ground which he could have taken. Two or three times, when his meal was over, he would rest on the tip of my boot, and take a nap, and I would grow tense with the strain of absolute quiet in every muscle, afraid to breathe for fear of frightening him.

He loved to bathe in the pan of water I kept filled for the birds to drink from, and sometimes he would go, afterwards, to the little earth-hollow which was the exclusive property of the female nesting Thrasher, and cuddle in there for a sun-bath, which of course meant a fight, for she would oust him in a tiny fury, and twice he came over to me for refuge, where she dared not follow him. Another time, after taking his bath, he came over to a tiny hollow just at the edge of my skirt, where he flattened himself into a round ball in the sunshine, glancing up at me occasionally in the gentle, sweet way he had that was so infinitely winning. One action of his was peculiarly winsome, and that was the strange, exquisite courtliness of his attitude when approaching to eat from my hand; as a rule he would lift his pretty wings till they met over his back, though sometimes he merely extended them sideways slightly. "May I have some, please?" he seemed to ask, by this gentle courtesy.

On July 20, he disappeared, and to say I missed the little fellow would be to state it mildly. Day after day I hoped against hope that he would return, but Thrashers were getting scarcer every day. It was August 14, when he finally returned, and it took me three days to recognize him, for he looked larger, and was not so pretty, being in a bad state of molt. But the characteristic, pretty motion of the uplifted wings was unmistakable, and he was soon eating out of my hand again as tame as ever. After September 5, he again disappeared, and this time I feared I had seen him for the last time. But on the 13th when I entered the wood, he was there; he looked so different, however, that I failed again to recognize him at first, for his molt was over, he was trim and pretty, and his feather markings were unlike the old, frayed-out plumage. He roosted on a bough in front of me, and began to sing through his closed beak, —a song as clear and sweet, though not so loud, as any Thrasher melody heard in May or June,—indeed he was full of song, his sides vibrating, and his long tail shaking with the energy of his vocal efforts. The following day he was there again, and this time I sat on the ground, holding out the cornbread, and then recognized the bird as he flitted close to my hand, raising his wings in his own dainty, graceful manner. This was the last time I saw him; and I have often wondered since whether he knew how much I loved him? And he? He left no shadow of doubt in my mind as to the depth of his love for cornbread!

A Southern Illinois Lunch Counter

By LAURA F. BEALL

FOR many winters we kept a lunch counter for the birds at our home in southern Illinois, and found so much pleasure in watching our feathered neighbors and saw so many quaint antics, that a little history of it may not be without interest.

The beginning of it was a box fastened on a limb of a cherry tree that grew about twenty feet from the kitchen windows; in that we placed bread crumbs, bits of suet, and scraps of almost every kind. Finding how enthusiastically this was received, we hung loosely crocheted bags filled with nuts and suet in the tree, and tied gourds containing raw peanuts in the windows.

After a while we added a shallow tin pan full of different seeds; this was placed on the window-sill, carefully fastened so it would not upset when our small boarders alighted on it . Often we popped corn and scattered it on the ground underneath the tree. This was largely for the delectation of the English Sparrows, who did not go to the box often if there was anything to be had on the ground, and as they were numerous, and had good appetites, we preferred to keep them out. They gave no trouble aside from numbers, however, and appeared to be respectable, law-abiding citizens.

One of the bird authorities says the male Downy is anything but chivalrous in winter, but the one that patronized our counter was assuredly a cavalier "without fear and without reproach." At first we had but the pair, and we noticed that they never came together, that the female invariably came first in the morning, and that they both carried food away, and always flew in the same direction, with it. We wondered a good deal what it meant, and finally, one day, we saw three Downies fly into the tree, our pair and another male. They all came to the box and ate, and after that all three generally came together, and what delightful hours we spent watching their gambols among the branches. They would frisk and play, and chase each other in and out with the greatest glee imaginable.

A Chickadee that came to the window one winter had lost one leg, and though he was almost as agile, and quite as gay as the rest, his kinfolk were very unkind to him, pecking at him, and driving him away whenever they could. He never came without a cheery song, and seemed so happy, and gentle, in spite of his afflictions, that we loved him more than any of the others. He seemed to care more for water than food, and every little while through the day we put out warm water for him. But one day we watched for him in vain. Whether he was killed, or whether he died a natural death, of course we never knew.

The gourds at the windows were the especial property of the Chickadees and Titmice. After they tasted the raw peanuts they could not be persuaded to eat anything else, and one day a Titmouse actually stuffed himself so full he could not fly. He sat in a heap on the sill for about an hour, blinking at us

occasionally when we looked out at him, and then all at once darted off, and probably was back after more in a short time.

Gradually the counter came to be an all-year affair, and last summer a family of young Tits were practically brought up on our sill, being taken there by their parents before they possessed the faintest suggestion of a tail, and staying there until that appendage was fully grown. And such a clatter! Their yellow-lined mouths were open from morning till night, and noise entirely out of proportion to the size of the birds was issuing from those caverns all the time, except when their proud parents—and they, had reason to be proud of the satin-coated little beauties—were putting food in them. We saw the following birds eating:

WHITE-BREASTED NUTHATCH AT A LUNCH COUNTER
Photographed by Edwin C. Brown, Minneapolis

the Downy, Hairy and Red-headed Woodpeckers, the Yellow-bellied Sapsucker, Flicker, Wh te, and Red-breasted Nuthatches, Juncos, Titmice, Black-capped and Carolina Chickadees, Song Sparrow, White-throated and White-crowned Sparrows, English Sparrows galore, Brown Thrashers, Robin, Catbirds, Towhee, Carolina, House, and Winter Wrens, Blue Jays, and last, but not least, the 'ovely Cardinal. For several winters we had seven Cardinals regularly, and their glowing beauty, thrown into relief by the snow that was covering ground and trees, was a sight never to be forgot en.

One of the most interesting things we noticed was the rapidity with which the Nuthatches detected the presence of walnuts. We never saw them unless we put out cracked walnuts; then in less than an hour we would hear a *yank, yank*, and there were the Nuthatches. They would remain until the supply

of walnuts was exhausted, and then depart to be seen no more until more were put out, then they smelled them afar off, and came hastily back.

These are only a few of the birds seen in the yard, and probably many others fed there. Very little time was taken to keep up the lunch counter (a good deal was spent watching the little boarders however), and we felt well repaid by their evident appreciation, and cunning ways.

Our success—I had a list every year of nearly a hundred species, seen mostly in our own yard—shows what can be done, and easily done, by producing food and water, and what protection is possible against their enemies, particularly cats, Screech Owls, and small boys. Any one will find it well worth doing.

Bird-Lore's Ninth Christmas Bird Census

THE plan of reporting one's observations afield on Christmas Day has met with such cordial and practical endorsement by bird students throughout the country that BIRD-LORE'S Christmas Bird Census may now be considered a fixed event, which increases in interest as the accumulating records give additional material for comparison. From a total of 25 lists received in 1900, it has grown to 142 lists in 1907.

Reference to the February, 1901–1908 numbers of BIRD-LORE will acquaint one with the nature of the report of the day's hunt which we desire; but to those to whom none of these issues is available, we may explain that such reports should be headed by a brief statement of the character of the weather, whether clear, cloudy, rainy, etc.; whether the ground is bare or snow-covered, the direction and force of the wind, the temperature at the time of starting, the hour of starting and of returning Then should be given, in the order of the A. O. U. 'Check-List,' a list of the species seen, with exactly, or approximately, the number of *individuals* of each species recorded. A record thould read, therefore, somewhat as follows:

Yonkers, N. Y. Time, 8 A. M. to 12 M. Clear, ground bare; wind west, light; temperature 38°. Herring Gull, 75. Total,—species,—individuals.—JAMES GATES.

These records will be published in the February issue of BIRD-LORE, and it is particularly requested that they be sent the editor (at the American Museum of Natural History, New York City) not later than December 28. It will save the editor much clerical labor if the model here given and the order of the A. O. U. Check-List be closely followed.

The Migration of Flycatchers

SEVENTH PAPER

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

With Drawings by Louis Agassiz Fuertes and Bruce Horsfall

DERBY FLYCATCHER

This is a non-migratory species ranging throughout most of Central America and extending north to the valley of the lower Rio Grande, in Texas.

BEARDLESS FLYCATCHER

A species principally of Central America, from Nicaragua northward, that spends the winter at least as far north as central Mexico. A few have been noted in southern Texas, where the species arrives in March. The bird breeds near Tucson, Arizona; here the first one was noted April 28, 1881, fledged young were seen May 29, 1881 and young in the wing, but still fed by the parents, June 11, 1903.

OLIVE-SIDED FLYCATCHER

The Olive-sided Flycatcher occurs throughout the United States except in the southeastern part, where it is almost unknown outside of the mountains. Though it breeds in the mountains as far south as North Carolina, records of its movements are rare south of New England.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Flushing, N. Y.			May 24, 1872
Chepachet, R. I.			May 24, 1900
Eastern Massachusetts	5	May 24	May 20, 1902
Monadnock, N. H.	2	May 20	May 18, 1903
St. Johnsbury, Vt.	4	May 23	May 19, 1907
Southwestern Maine	5	May 23	May 20, 1906
St. John, N. B.	4	May 24	May 23, 1891
Scotch Lake, N. B.	5	May 26	May 22, 1905
Halifax, N. S.	2	May 28	May 26, 1903
Montreal, Que.			May 31, 1892
Godbout, Que.			June 6, 1883
St. Louis, Mo.			May 8, 1886
Wheatland, Ind.			May 12, 1885
Urbana, Ill.			May 12, 1904
London, Ont.			May 13, 1900
Chicago, Ill.	7	May 24	May 20, 1898
Hillsboro, Ia	5	May 19	May 15, 1895
Lanesboro, Minn.	4	May 25	May 23, 1891
Huachuca Mountains, Ariz.			April 20, 1902
Loveland, Colo.			May 11, 1887
Columbia Falls, Mont.			May 21, 1897
Pasadena, Calif.			April 24, 1896
Corvallis, Oreg.			May 4, 1906
Tacoma, Wash.			May 15, 1904
Fort Kenai, Alaska			May 26, 1869

FALL MIGRATION

The earliest fall record on Long Island is August 19, 1888; the average date of arrival for three years, at Lanesboro, Minn., is August 6, the earliest date being August 3, 1890; the average of four years at Hillsboro, Iowa, is August 25, the earliest, August 23, 1899; the earliest fall date in southern Louisiana is August 16, 1903.

FALL MIGRATION

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Aweme, Man.	6	August, 29	September 4, 1907
Lanesboro, Minn.	4	September 8	September 9, 1888
Hillsboro, Ia.	4	September 7	September 10, 1899
Chicago, Ill.	6	September 7	September 15, 1898
Ellis, Kans.			September 14, 1875
St. Louis, Mo.			September 25, 1885
Scotch Lake, N. B.	4	August 10	August 12, 1903
St. John, N. B.	5	September 5	September 10, 1894
Halifax, N. S.			September 3, 1902
Dublin, N. H.			September 14, 1897
Erie, Pa.			September 18, 1900
Jamaica, N. Y.			September 26, 1900
Pasadena, Calif.			September 26, 1896

COUES'S FLYCATCHER

Southern Arizona and northern Mexico comprise the range of this species. In Arizona it seems to be found only in summer and breeds in the mountains from 6,000 to 10,000 feet. The earliest date for Arizona is March 29, 1903, in the Huachuca Mountains, and the latest, September 4, 1884 in the Santa Catalina Mountains. A straggler was taken at Fort Lyon, Colorado, April 20, 1884.

SONG SPARROW
Photographed by A. A. Saunders, New Haven, Conn.

Notes from Field and Study

A Winter Bird Resort

The writer as an incident of his vacation, spent a considerable part of the past winter in Guantanamo Bay, Cuba, and while there made it a practice to land frequently to observe the manifold bird life of the region. Originally expecting to see only native Cuban birds, my delight may be imagined when on the very first excursion into the thorny tropical jungles I began to see familiar faces and feathers and realized that I had found the winter quarters of some of our well-known North American birds.

The first home bird that I saw, the identification of which was complete and led me to look for other friends from home, was an Oven Bird. I saw this bird, or at least an Oven Bird, on several subsequent occasions always in the same locality and always busily walking about the ground picking up the morning meal. My favorite landing place, on Caracoles Point, is uninhabited; there is no shooting there, and the birds are consequently remarkably indifferent to men as well as remarkably numerous. I could walk up so close to the Oven Bird without alarming it that my field-glasses were of no use, and my experience was the same with many other species, both Cuban and North American.

Warblers were very numerous, and I identified other of our birds whose plumage or characteristics are unmistakable, even to an amateur, such as the Black and White Warbler, the Black-throated Blue Warbler (both male and female), the Tennessee Warbler, the Redstart, the Phœbe, and the little Blue-gray Gnatcatcher. The latter was especially numerous, and properly so, for there are certainly gnats enough for them in those briery Cuban thickets. The sweet little song of this Gnatcatcher is about all the bird music one hears in this season and region, the other birds that I have mentioned being silent except for a short *chip* or *cheep* that seems to be a sort of hunting cry with them. Mockingbirds and Brown Pelicans are very plentiful, but I believe they are on their native heath in these West India Islands.

I had it in mind to observe the North American birds closely as spring approached in order to fix the dates of their departure on the northern migration, but naval duty prevented. The middle of March the whole fleet sailed from Guantanamo Bay to conduct the annual record target practice, and I had to say farewell to my birds, leaving them in their winter homes.

It is difficult to close these notes without mentioning some of the beautiful and very numerous Cuban birds of land, sea and shore that one sees about this region. Some of these, as the Tody, a lovely little bright green bird with a red throat, a gorgeous Woodpecker, a brilliantly marked Trogon, and black Orioles with golden trimmings, are so strikingly handsome that it is to be regretted they do not live in the United States where more people might see them. There are Hummingbirds of several species, various Herons and a curious black bird with a parrot-like beak that I take to be the Ani. The big Mangrove Cuckoo is often seen, and another and much larger species of Cuckoo (*Saurothera*) is even more numerous. This latter is a rich brown- or bronze-colored bird with a remarkably silent and stealthy manner of moving about in the tree tops, scarcely moving the leaves, and their flight is owl-like and gloomy without a sound. A more uncanny object I have never seen in feathers.—F. M. BENNETT, *U. S. N.*

Sea Birds and Whalers

Last summer, while on board the whaling steamers which "fish" along the west coast of Vancouver Island, I saw an interesting way in which sea birds make themselves of considerable use to the sailors. The whales feed on a small shrimp about

half an inch in length which at times during the day float at the surface, staining the water a light pink. These minute animals also furnish food for countless schools of herring and great flocks of Gulls, Petrels and Terns. The birds are a welcome sight to the men on the vessel for when they are seen circling above the water, "feed" is sure to be plentiful and the whales easy of approach. It was here, from the steamer Orion, that I had my first sight of the Black-footed Albatross. Although the "Gonies," as the sailors call them, never came in the bays or close to shore, when the vessel was fifteen or twenty miles at sea, she would be surrounded by numbers of the great, brown birds which followed her from dawn until dark. Sometimes with slow, steady wing-beats they would fly beside the harpoon-gun at the bow, or, skimming just above the surface of the water, alight, daintily hold their wings on high and carefully fold them without wetting even the tips of the feathers. The birds showed no fear of the men on the vessel, sometimes coming so close for scraps of food that one could almost touch them by leaning over the rail.

As I was hunting whales I made but few attempts to photograph this most northern representative of the family, one picture of which is presented herewith.—Roy C. Andrews, *American Museum of Natural History, New York City.*

BLACK-FOOTED ALBATROSSES
Photographed by Roy C. Andrews

The Wit of a Florida Nighthawk

During the season of 1904, while plowing the last furrow for the evening in a potato patch, I saw a Nighthawk flutter off in the grass as if her wing were broken. After carefully searching the place from which it started, I found two eggs lying on the bare ground, their dark color making them very inconspicuous. This last furrow came very near to the eggs, and it was evident that they would come in the way when we continued plowing the next day. Owing to the very dry weather, we planted only a few rows each evening.

I left the eggs undisturbed, and forgot all about them and the bird until the next evening, after I had already plowed past the place where the eggs were the first evening, when suddenly the Nighthawk flew off as it had done the evening before. On the ground were the two eggs. Now, if this was the same bird, it had moved its eggs about fifteen feet farther from the plowed ground than they were when first found. By watching two or three succeeding evenings, I became convinced that it was the same bird and that it had moved its eggs every day about the same distance

from the plowed ground, for just as we were finishing for the evening the bird would fly off of her eggs.

The evening after the last plowing,—after we had planted all we wanted,—I went to the place, and after considerable search found the eggs where they had been moved a short distance from the last furrow. I visited the place on several succeeding days, and found that the eggs were not moved after the potato planting was finished.—ANGUS MCKINNON, *De Funiak Springs, Florida.*

The Dickcissel on Pine Ridge Indian Reservation, South Dakota

For a period of nearly three years I closely observed the avifauna of Medicine Root creek, a stream of Pine Ridge Indian Reservation, in southwestern South Dakota. The period in mention extended from October, 1901, to July, 1904, when during this time not a single Dickcissel was seen by me. In July, 1907, when I paid a visit to this creek, and rode nearly its entire length of about twenty-five miles, I saw and heard at one point, on a broad place in the valley, about twelve miles from its confluence with Big White river, a half-dozen or two of the birds in question, among some plum trees and wolf-berry bushes. I may here state that during the period of approximately three years, mentioned above, I had observed, as opportunity permitted, the bird life of a large portion of the reservation, a tract of land about 100 long by 60 miles wide; and during this time I had seen none of these birds anywhere in the region. Of course they are to be looked for only along the creek valleys. Among the semi-arid hills and higher plains they are not to be found.

The Dickcissels seen by me on Medicine Root, in July, 1907, however, were not the first to be observed in the interval extending from the close of my first three years' observation of the birds of the reservation to that date. I left the reservation in July, 1904, and returned on April 22, 1905, taking up my station on Grass Creek, some thirty or thirty-five miles west of my former location on Medicine Root creek. I remained here until August, 1906. This creek, for the most part, has a broad plain with many small trees and bushes and wolfberry shrubs,—conditions favorable, one would think, for the habitat of the Dickcissel. I saw nothing of this species, however, along Grass creek proper, at any time. But on July 9, 1905, I saw one of these birds, a male, in a little valley that opens upon the plain of Grass creek, and about a mile to the west of the point where the two valleys join. The bird was seen in a clump of bushes near a pool of stagnant water. It is to be suspected that the female bird was near by, and that both may have been in the vicinity for some time.

The next summer (1906), on Wounded Knee creek, some five miles to the east of Grass creek, I saw, on June 13, one Dickcissel, a male. Shortly afterwards I noted several of these birds. They were seen among some plum trees and wolfberry shrubs, and were distributed at intervals along a tract about half a mile in length. The next summer(1907) when passing by on horseback, I saw them along this tract again, and, I estimate, in increased numbers. The year before, (August, 1906), I had been transferred to Lake creek, about forty-five miles to the southeast of my former station on Medicine Root. That summer I saw no Dickcissels at my new station, but the following year (1907), they appeared suddenly, in large numbers, on June 13—mark the date!—and became immediately common. The quality of the bird music of the valley was suddenly changed, and the notes of the Dickcissels were heard above all others. About two weeks after the above date I found a nest containing four eggs.

From the observations given above we must conclude that this erratic Bunting has recently come to Pine Ridge Reservation, and is increasing in numbers there with each visit.—H. TULLSEN.

Migration in New Mexico

The autumnal tide of Warblers began to flow down upon Fort Stanton, New

Mexico, August 28, after ten days of, for us, hard rains and somewhat cooler weather.

Fort Stanton, an old army post, is now used as a sanitarium for tuberculous sailors of the United States Merchant Marine. It has an elevation of 6,632 feet and is situated on the eastern side of the White mountains, an isolated peak which rises to a height of 10,000 feet.

In order to reach the well-wooded mountain sides birds coming from the north or northwest are compelled to cross a sandy desert of quite seventy-five miles in extent.

After reaching this point, the small birds appear to follow the water-courses in a southeasterly direction; perhaps preferring to trust themselves to the shelter of the trees along the banks rather than to risk another dusty flight across the barren plains. Then too, they reach a warmer climate sooner by dropping into the Pecos valley than they would were they to keep due south at this elevation.

The first Warbler seen was on the afternoon of August 28, This was a "Pileolated Warbler." On the 29th they were more numerous and on the 30th all the cotton woods around the fort and on the Bonito were filled with them. On September 1, only a very few were to be seen, but stragglers continued to drop in until the 22d.

On August 30, three Macgillivray Warblers were seen in the underbrush along the river, or brook, as the Bonito would be called back East. They were extremely shy, differing greatly in this respect from their cousins, and it was much easier to hear their shrill *peet peet* of alarm than to see the bird. They were more abundant during the first week of September but were never numerous and were always more or less shy.

During the spring migration they were quite numerous and easily watched either on the ground or in the bushes.

On August 30, and again on September 1, one Western Water-Thrush was found. —L. D. TRICKS, *Post Adjutant Surgeon, United States Public Health and Marine-Hospital Service.*

Central Park Notes

A Grackle Incident

On the morning of May 9, while walking through the lower end of Central Park, Miss Crolius, of this city, and I saw a Grackle flying heavily over a field with a bird, which was uttering cries of distress, in its claws. The Grackle evidently did not know enough to obtain a firm grip, for its captive was able to struggle violently. The interesting fact was that the bird was evidently not a nestling, but an adult. It is well known that Grackles often eat young birds, but I have never heard of their capturing and carrying off fully grown ones.

Tennessee Warbler

I identified a fully adult female of this species on the morning of August 20. It was very nervous and restless, and, as it fed, it uttered a sharp *tsit*. This same bird was seen again that afternoon by Mr. George E. Hix and myself. I also saw it the next morning. An interesting fact was that it was found in exactly the same place all three times. This Warbler has always been very rare here.

Cape May Warbler

This generally rare Warbler has turned up several times in the Park this autumn. Below I give the dates of occurrence:

September 22, one young male; September 24, one male; October 1, one young female.

All three birds were seen in company with Blackpoll Warblers which have been exceedingly abundant this autumn.

Mourning Warbler

Miss Crolius and I watched a female of this rare Warbler for over an hour on August 6. It was very shy and spent its time in thick clumps of rhododendrons, occasionally walking on the ground and stretching up to pick insects off the lower leaves. While feeding, it gave a whispered *sip*, as if it were talking to itself. When alarmed, it uttered a sharp *chuck*, very much like the call-note of the Water-

Thrush in quality. Once or twice it flew up to a branch about fifteen feet from the ground and sat perfectly still watching us. After a time it would fly down again into the bushes and resume its feeding. This is the first fall record of this Warbler for the Park, and, indeed, I believe it is very rare at this season in the neighborhood of New York City.

Connecticut Warbler

A young bird of this species was seen by Miss Anne A. Crolius and Mr. Stanley V. Ladow, September 22. I have also seen it twice in the immediate vicinity of the city.

Myrtle Warbler

I saw an individual of this species in fall plumage August 28. This is three weeks earlier than it is usually seen in this neighborhood.

Yellow-bellied Flycatcher

This Flycatcher was almost common in the August migrations. I have records of six individuals, the first having been seen on the 16.—LUDLOW GRISCOM, *New York City.*

Song of Kirtland's Warbler

A Kirtland's Warbler positively identified May 16, 1908, at La Grange, Illinois, sang at intervals while busily feeding; the songs seeming to vary slightly as follows: *We-chee, we-chee, we-chee, chee-ree-eee!* or *we-see, we-see, see-see-rrrrrr!* or *we-see-see-see-rrrrrrrr!* It was always marked by the softness of the first notes and prolonged accent of the last; the volume increasing, also, and the final sound having the quality of a prolonged *r* or *re*. The song is unusually loud and clear for a Warbler's song and possesses a peculiar sweetness that, once heard, will not soon be forgotten.—LOUISE B. MOYER, *La Grange, Illinois.*

Rare Birds in Prospect Park, Brooklyn, N. Y.

It is not necessary to go "far from the madding crowd" in order to see birds. In Prospect Park, Brooklyn, I have observed 98 species since January 1, 1907, and my list will certainly pass the century mark long before the year is over. Some of the more noteworthy records are the following:

Black-crowned Night Heron, February 2; Carolina Wren, February 22, February 28,—a rather common fall migrant; Pine Siskin, March 12, March 21; Turkey Vulture, March 19; Olive-sided Flycatcher, June 12; Red-headed Woodpecker, September 14; Cape May Warbler, September 17; Pigeon Hawk, September 27.—EDWARD FLEISCHER, *Brooklyn, N. Y.*

Arrival of Winter Birds in Chicago

Scarcity of food owing to dry weather, forest fires in the northern country, or other and perhaps more usual causes, seems to be hastening the winter birds southward, and the coming season promises to be a good one for winter observations.

On November 7, I saw a pair of Evening Grosbeaks on the Wooded Island in Jackson Park, Chicago. They were perching quietly in a clump of small trees, were not at all wild or timid, and gave me an excellent opportunity to observe them. Presently they flew down to the edge of the lagoon and drank, and I have never seen a more pleasant sight in bird life than these two Grosbeaks made standing side by side in the frosty morning sunlight dipping up water.

On November 8, I found a flock of Pine Siskins in the south part of Jackson Park. They were making themselves very much at home about the trees and shrubbery and in the grass. Some English Sparrows took offense at their presence and assailed them time and again. The Siskins yielded their ground very reluctantly, and came back each time as soon as the Sparrows had gone.

On the same day, just south of the Park, on some vacant land, part of which is under cultivation and part overrun by weeds and wild grasses, I encountered a small flock of Snow Buntings. I have been

so accustomed to associating Snow Buntings with wintry storms and snow-blown fields that the sight of these birds here in a cabbage patch on a sunny mid-autumn morning was a surprise to me.

I may add that the season here has been unusually mild and pleasant, and so the early arrival of these winter birds seems all the more worthy of note. F. A. PENNINGTON.

The Twenty-sixth Annual Congress of the American Ornithologists' Union

The Twenty-sixth Annual Congress of the American Ornithologists' Union was held in Cambridge, Mass., November 16–19, 1908.

At the business meeting held in William Brewster's Museum on the evening of the 16th, the election of officers resulted as follows: President, E. W. Nelson; Vice-Presidents, Frank M. Chapman, A. K. Fisher; Secretary, John H. Sage; Treasurer, J. Dwight, Jr.; Councilors, Ruthven Deane, William Dutcher, H. W. Henshaw, F. A. Lucas, Chas. W. Richmond, Thomas S. Roberts, Witmer Stone.

F. DuCane Godman, of London, was elected an Honorary Fellow, and Otto Herman of Hungary a corresponding Fellow. Between eighty and ninety Associate Members were elected.

The public sessions of the Congress were held in the Museum of Comparative Zoology, about one hundred members of various classes being in attendance.

PROGRAM

TUESDAY A. M.

Experiences of an Ornithologist in Costa Rica, M. A. Carriker, Jr., Pittsburgh, Pa.

Canadian Bird Havens, Ernest T. Seton, Cos. Cob, Conn.

A Hollow Tree, Ernest T. Seton, Cos. Cob, Conn.

Ornithological Miscellany from Audubon Wardens, B. S. Bowdish, New York City.

Scarcity of the Ruffed Grouse in 1907, E. Seymour Woodruff.

TUESDAY P. M.

A way to lighten the burden of Nomenclature, Jonathan Dwight, Jr., New York.

Vernacular names of birds, Jonathan Dwight, Jr., New York City.

Some Observations on the Gulls and Terns of Massachusetts (illustrated by lantern slides), E. H. Forbush, Wareham, Mass.

WEDNESDAY A. M.

Observations on the Black Mamo of Hawaii, W. A. Bryan.

The tagging of wild birds as a means of studying their movements, Leon J. Cole, New Haven, Conn.

The part played by Birds in the recent Field Mouse Plague in Nevada, C. Hart Merriam, Washington, D. C.

The Position of the Birds' feet in Flight, Chas. W. Townsend.

The First Bird Protective Society in Italy, W. R. Lord.

WEDNESDAY P. M.

A study of a breeding colony of Yellow-headed Blackbirds, with an account of destruction of the progeny of the entire colony by some unknown agency (illustrated by lantern slides), Thos. S. Roberts, Minneapolis, Minn.

Propagation of Bob-white (illustrated by lantern slides), C. F. Hodge, Worcester, Mass.

Methods of study of the Nesting Habits of Birds (illustrated by lantern slides and moving pictures), Frank M. Chapman, New York City.

Pelican Island in 1908 with other Florida notes (illustrated by lantern slides and moving pictures), Frank M. Chapman, New York City.

THURSDAY A. M.

Bird Studies in Northern Ontario, W. E. Clyde Todd, Pittsburg, Pa.

Triumphs of Bird Protection in Louisiana (illustrated by lantern slides), Herbert K. Job, West Haven, Conn.

Through Eastern Oregon (illustrated by lantern slides, by H. T. Bohlman and W. L. Finley), William L. Finley, Portland, Oregon.

Book News and Reviews

THE LAY OF THE LAND. By DALLAS LORE SHARP. With drawings by Elizabeth Myers Snagg. Houghton, Mifflin & Co. Boston and New York. 12mo. 214 pages, 15 decorative chapter headings. $1.25 net.

As a writer of nature literature—we use the term in an exact sense—Mr. Sharp has unusual qualifications. Added to natural gifts as an observer and describer of objective and subjective nature, he has been trained to realize both the importance of accuracy as well as the value of an attractive style of presentation. As might be expected from this somewhat exceptional combination of natural gifts and their proper development, his books take high rank among those of their class.

They can be read as easily as they are, evidently, written and we commend the present volume to those who like to read about out-of-door things without feeling that they, as well as the author, are continually laboring under high pressure.—F. M. C.

THE BIRDS OF MAINE. By ORA WILLIS KNIGHT. Bangor, Me., 1908. 8vo. 693 pages, 1 map, 30 half-tone plates.

The author tells us that "since early boyhood" it has been his hope to write a book relating to the life histories of the birds of his native state, and the present volume is therefore the realization of a life-long ambition. "For years data regarding the nesting and food" of Maine birds have been gathered, and some years ago a 'List of Birds of Maine' was published, which "served as a beginning by bringing out much information regarding bird distribution in the state. . . ."

The book opens with a key to families, and under each family we have a key to the species which occur in Maine. Brief descriptions of the plumage of each species are given, followed by a statement of its general geographical distribution and, under the head of "County Records," a statement of its status in various parts of Maine, with the name of the observer on whose authority the statement is made. After this we have a biographical sketch, usually based largely on the author's studies and containing, therefore, much original matter. The work, consequently, has a general as well as a local value and the author is to be congratulated on the completion of his task.—F. M. C.

IN THE OPEN; INTIMATE STUDIES AND APPRECIATIONS OF NATURE. By STANTON DAVIS KIRKHAM. Paul Elder & Co., San Francisco and New York. vii+ 223 pages, 6 full-page half-tones. Price, $1.75 net.

Mr. Kirkham's beautifully made volume is an invitation to the open. "Nature is in herself," he writes, "a perpetual invitation: The birds call, the trees beckon and the winds whisper to us." These essays treat of a wide variety of subjects, as may be gathered from the following titles: 'Signs of Spring,' 'Bird Life,' 'Weeds,' 'Insect Lore,' 'The Winter Woods,' 'Laughing Waters,' 'The Mountains,' 'The Forest,' 'The Sea.'

Most of these chapters appear to be based on observations made in New England (why are the authors of nature essays so chary of dates and places?) but 'The Forest' was inspired by the conifers of the Sierras.

Mr. Kirkham evidently knows his ornithology and with no uncertain pen, writes of birds with the sympathy of a poet and a bird-lover.—F. M. C.

THE CHINA OR DENNY PHEASANT IN OREGON, WITH NOTES ON THE NATIVE GROUSE OF THE PACIFIC NORTHWEST. By WILLIAM T. SHAW, Assistant Professor of Zoölogy and Curator of the Museum, State College of Washington. Philadelphia, J. B. Lippincott Company, 1908. Oblong, 8vo. 24 pages, 15 full-page plates, one colored.

The remarkable increase of *Phasianus torquatus* in Oregon makes any facts

concerning its introduction and subsequent history of interest alike to the sportsman and the biologist. In this attractive little book Professor Shaw tells us that this Pheasant was brought to Oregon through the efforts of the late Judge O. N. Denny while Consul-general to Shanghai. A shipment of seventy birds sent in 1880 died *en route*, but twenty-six of a lot of thirty birds sent the following year, arrived in excellent condition and were released in Linn county at the foot of Peterson's Butte. The species was given legal protection for ten years and at the end of that time it "had become so successfully acclimatized as to withstand the most vigorous annual onslaughts," a statement which we wish were accompanied by data in regard to increase and a map showing the extent of range-extension from time to time.

In writing of the habits of the Pheasant and Sooty Grouse (*Dendragapus*) Professor Shaw records the occasional hybridization in nature of these species so unlike in habits, haunts and appearance. The full-page plates of mounted specimens of Oregon Grouse and Quail reflect credit on Professor Shaw's skill as a taxidermist and taste as a photographer.—F. M. C.

The Ornithological Magazines

THE AUK.—With the October number this steady-going journal completes its twenty-fifth volume still under the able editorship of Dr. J. A. Allen, who, ever since 1884, has done so much toward maintaining its high standard of excellence. The pages before us are bristling with local lists or brief contributions to them. We note 'Some Birds of Central Alabama' by A. A. Saunders; 'Birds of the Bellingham Bay Region' by J. M. Edson; a continuation of the 'List of Birds of Louisiana, Part V,' by Beyer, Allison and Kopman; 'Recent Bird Records for Manitoba' by E. T. Seton; 'Birds of the Region about Needles, California,' by N. Hollister; 'The Birds of the Rosebud Indian Reservation, South Dakota,' by A. B. Regan; and 'New and Unpublished Records from Washington' by W. L. Dawson. None of these calls for particular comment although it strikes us that less sight and more gun is desirable in some cases. When, for instance, we read that the Eskimo Curlew is "well represented on the Butte Creek flats in June (1904)," we wonder what the writer really did see. We should also have liked the word "Washington" added to the title of Mr. Edison's article because complete titles are always a great convenience to many.

Mr. Ruthven Deane tells the story of 'The Copper-plates of the Folio Edition of Audubon's Birds of America with a Brief Sketch of the Engravers.' The plates, 435 in number and weighing several tons, were sold for old junk for the value of the copper. Some got into the melting pot while others were rescued at the last moment. The photographs of casts of cameos made of the author of this great work fittingly accompany an article by Dr. C. Hart Merriman on 'The King Cameo of Audubon.' These intaglios were cut by Mr. King in the early '40's.

As for Mr. E. S. Cameron's 'Changes of Plumage in *Buteo swainsoni*' we should like to call attention to the fact that no series of birds will prove the supposed changes unless specimens actually in molt are obtained. The gray birds may change to brown through wear just as the loss of the "frosting" of some Terns' feathers produces blacker wings.

A record of a Kirtland's Warbler seen by Mr. J. Claire Wood is open to criticism, first because it is of the kind that fills local lists with question marks, and, secondly, because it encourages young observers to think they see in moments of excitement what they have read they may see. It is always the rarest bird that escapes us much as it is always the biggest fish that breaks from the fisherman, and we all know how different from the bird in the bush the bird in the hand has often proved to be. And why should Kirtland's Warbler in Michigan, its summer home, be recorded at all? Other records in 'General Notes' concern species that have wandered from their usual habitat.—J. D., Jr.

THE CONDOR.—The July and September numbers of 'The Condor' still await notice. The former, an unusually large number, is chiefly made up of local lists, which include Mailliard's 'Sierra Forms on the Coast of Sonoma county, California,' Willett's 'Summer Birds of the Upper Salinas Valley,' Gilman's 'Birds on the Navajo Reservation in New Mexico' and 'Rockwell's Annotated List of the Birds of Mesa County, Colorado.' The last paper, containing 28 pages illustrated with two maps and nine photographs, is a model of its kind. It contains notes on 199 species and is probably the most complete local list for any part of western Colorado. Other articles are: Dagget's 'Bit of Early California Natural History' from Trusler's 'Habitable World Described' 1788–1795; Dixon's 'Field Notes from Alaska,' giving an account of the work of one of the parties of the Alexander Expedition; and Metz's 'Nesting of the Rocky Mountain Screech Owl in Wyoming,' presumably near Sheridan in the northern part of the state.

The September number has but 28 pages—no more than the longest article in the preceding number—but it contains several papers on birds of little-known areas in California. These papers are: Grinnell's 'Birds of a Voyage on Salton Sea,' Linton's 'Notes from Buena Vista Lake,' and Goldman's 'Summer Birds of the Tulare Lake Region.' The formation of the Salton Sea was quickly followed by an influx of water birds of various kinds, and here was found, this year, "the southernmost recorded nesting colony of the American White Pelican." The most southern point at which the species has hitherto been known to breed was at Buena Vista Lake in San Joaquin Valley. Among the southern breeding records given by Goldman for Tulare Lake may be noted those of the White Pelican, Green-winged Teal, Shoveller and Pintail. The notes on the California Sage Sparrow and Leconte Thrasher contains the first records of the breeding of these species at this locality. Among the shorter articles may be mentioned Bowles 'Notes on a Few Summer Birds of Lake Chelan, Washington,' and Richard's description of 'An Unusual Nesting Locality for the Rocky Mountain Nuthatch,' near Littleton, Colorado, ten miles south of Denver, on the south branch of the Platte River, at an altitude of 5,370 feet. Dixon's account of a 'Family of Young Duck Hawks' on Admiralty Island, Alaska, and Willard's brief 'Huachuca Notes' complete the list of papers. The number also contains a 'Directory of the Cooper Ornithological Club' including the names and addresses of two honorary and 222 active members. The deceased members now number seventeen.—T. S. P.

Book News

'Notes on the Winter Birds of Northern Louisiana' (Proceedings Biological Society, XXI, pp. 119–124) is a briefly annotated list of birds observed by Arthur H. Howell between January 6 and February 7, 1908. Skillful work in field and study result in the addition of seven species and subspecies to Beyer's list of Lousiana birds.

Leaflets Nos. 1 and 2 issued by the Oregon State Biologist are by William L. Finley and deal in a practical way with the economic value of birds. Leaflet No. 1 discusses this subject in a general way, while in No. 2, which is well illustrated certain common Oregon birds are treated at length. It is to be hoped that the leaflets will be issued in sufficiently large editions to meet the demand which will undoubtedly arise for them.

Miss Ella Gilbert Ives, whose stories and poems of birds are familiar to readers of BIRD-LORE has issued through the Arckelyan Press of Boston a dainty little volume *Out-Door* Music—Songs of Birds, Trees, Flowers, etc. Many of the poems such as Robin's Mate, The Little Minister, The Goldfinch and Robin's Proclamation, should find their place upon Audubon Society programs, while the book will make a pretty Christmas gift for a bird-lover.

Bird-Lore

A Bi-monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
Published by THE MACMILLAN COMPANY

Vol. X Published December 1, 1908 No. 6

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

Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

WITH this number BIRD-LORE completes its tenth year. It is not for us to speak of what the magazine has been or of the influence it has exerted. We prefer to look ahead rather than behind, and are more concerned with the future than with the past.

No single feature of BIRD-LORE has met with greater approval than the colored plates of North American birds. The first one was published in December, 1903, and the series now include the Warblers, the Thrushes and the Flycatchers,[1] the concluding plate of which will appear in our next issue.

In response to the requests of many subscribers, the Flycatchers will be followed by the Vireos. Because of the small number of species in this group and of the comparatively limited amount of variation in their plumage with age and sex, this series will be completed during the year, and, still guided by the expressed wish of our subscribers, it will be followed by plates of the Sparrows.

As for other illustrations, we trust that they will come from the cameras of our readers. It is BIRD-LORE'S mission to inspire a practical interest in the study of birds in nature and it particularly urges the value of the camera as a means of graphically recording one's observations. The use of the camera, however, is not unattended by expense, as every bird photographer will testify. To remove this objection, therefore, BIRD-LORE will pay for all photographs which it accepts for publication.

So far as text is concerned, in the earlier volumes of BIRD-LORE, nine-tenths of the leading articles were written by request of the editor, and it was our custom in this, the last number of the year, to announce the principal contents of the succeeding volume. This plan made it impossible for us to accept many contributions from our readers and, in our opinion, tended to defeat BIRD-LORE'S aim to encourage original observation with a view to adding to our knowledge of birds' habits.

We wish, therefore, all BIRD-LORE'S readers to consider the magazine's pages at their disposal for the publication of such observations as seem worthy of record. This includes not only notes for the 'Field and Study' department but more detailed studies.

The subject of serious and continuous studies, especially of the nest-life of birds, leads us to say a word in regard to the methods employed by some students, who, possessing a limitless fund of both patience and perseverance defeat their own purpose by a failure to comprehend the importance of studying their subject under natural conditions.

For example, we have lately received several manuscripts based on prolonged studies of the home life of certain birds in which the students showed a persistence, care and tirelessness deserving of far more valuable results than were obtained. Indeed the results were of little or no value wholly because the observers made no attempt at self-concealment and consequently the objects of their study were at all times aware that they were under observation and hence were either much alarmed or, at the best, unnatural.

Whether, therefore, one proposes to study the history of a certain nest or the life of a given locality, some form of concealment is necessary, and for further remarks on just what form of a blind may be used, we refer to our article on this subject on an earlier page.

AMERICAN CROSSBILL
WHITE-WINGED CROSSBILL

By MABEL OSGOOD WRIGHT

The National Association of Audubon Societies
EDUCATIONAL LEAFLET NO. 35

While we may count upon seeing certain species of birds during the migrations, and are assured that the old favorites that have been known since childhood will nest in the neighborhood, yet the comings and goings of the winter visitors are surrounded by a tantalizing uncertainty.

Season

In the bakers' dozen of these hardy voyagers of the air, we may, in the eastern and middle states, include the familiar Junco, Tree and White-throated Sparrows, the Winter Wren, Brown Creeper, Golden-crowned Kinglet, Northern Shrike, the occasional Snowy Owl, the haphazard Snowflake, Redpoll, Longspur, and the wholly irresponsible Crossbills. At best, the presence of these birds, with the curiously specialized beaks, depends upon the presence of cone-bearing trees, for cone seeds are their winter fare.

If on a clear, cold winter morning, soon after a snow-fall, I hear a clear metallic call-note high up among the spruces, I know that the Crossbills have come. On going out under the same trees to prove the sound by a glimpse of the birds themselves, the calling stops, and instead, as I pause to listen and focus my glass on a particular bird of bright hue, a rustling noise, akin to the falling of dry and somewhat heavy leaves, mingles with a few colloquial twitterings, as if the birds were talking to themselves, parrot-fashion; this rustling being caused by the shelling off of the cone scales, as the Crossbills feed upon the seeds that lie between.

As for the bird itself, or rather birds, for, as often happens, a mixed flock has settled among the spruces. Few of the white-winged species are mingled with their more plentiful wholly red brothers, while the mottled olive-green of the females and young of both species make the party consist not of birds of a feather, but of three distinct plumages, enough in itself to confuse the novice who is gazing at the first Crossbill of his experience.

Appearance

Let us stand off a bit, back braced firmly against a tree, and examine the nearest bird in detail, as he hangs, head downward, on a long cone with all the nonchalance of the up-side-down Chickadee. In length the Red Crossbill is a trifle smaller than the English Sparrow; the body of the male is a dull brick-red, brighter on the rump and rusty in the middle of the back, shading to lead-gray or *fuscous* on the wings. The

RED CROSSBILL

Order—PASSERES
Genus—LOXIA

Family—FRINGILLIDÆ
Species—CURVIROSTRA MINOR

female is of a dull olive-green, with dark mottlings on head and back and some white below; while the young may be marked like the female or show a mixture of red and green. But one characteristic marks alike male, female and young, telling you their family name as plainly as the Chickadee calls his name—the tips of the beak, or *mandibles*, are *crossed* as if they had been wrenched out of joint.

There is no other species of bird with a beak precisely like this. *Parrot-like* is a term frequently applied to the Crossbills, but though they live in flocks and climb about using their claws very much like hands, in parrot-fashion, the likeness does not extend to their beaks. The upper half of the hooked bill of the Parrot closes over the lower so as to almost conceal it, but lacks the warp that names the Crossbills. So much for identification.

This Red Crossbill is usually the most common species seen in the eastern and middle states, though at times they may be outnumbered by the White-winged Crossbill. The latter is a mere fraction smaller in size and differs chiefly in having *two white wing* bars, white on the belly and a decided *pinkish* tint to the upper parts of the body and breast. Both species have a swift dipping flight suggestive of that of the American Goldfinch, some of their call-notes when on the wing also resembling those of their jolly little yellow brothers.

While the White-winged Crossbill breeds quite regularly northward from the northern United States, and appears only in its winter wanderings as far south as Virginia, the Red Crossbill seems to be bound by no law as far as its nesting habits are concerned, and it is perfectly possible to find a pair of them nesting almost anywhere in New England. Perhaps on account of its being the best known species we know more about the nesting habits of the Red Crossbill. The nest itself is made of roots and twigs, moss-lined, and is usually well up in an evergreen tree; the eggs are dull green, spotted on the large end with brown and lavender.

Nest

Dr. Coues mentions a nest found in Maine in the month of February, and a nest has been found in East Randolph, Vermont, so early in March that the ground was covered with snow and the weather was very severe. The parents were so devoted to their young that they could be lifted from the nest by hand. Mr. E. P. Bicknell has also found a nest on April 22, in New York near the Connecticut line. Apropos of their early nesting is the following note, which appeared in BIRD-LORE:

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. BIRD-LORE.]

"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."

Of the White-winged Crossbill Dr. Coues writes: "The Crossbills of both species are birds of the most strongly marked originality of character, and it is never safe to predict what they may or may not be found about. Their most remarkable habit is that of breeding in *winter*, or very early in the spring, when one would think it impossible that their callow young could endure the rigors of the season. They are the most devoted parents, seeming entirely insensible of danger in defence of their homes; and at all times, indeed, betray a confidence in man that is too often misplaced, and that seems the height of folly to one who knows as much of human nature as most people find out, sooner or later, to their cost.

"These birds are much attached to pine woods, the seeds of the conifers furnishing them abundant food, of a kind that their curiously shaped bills enable them to secure with great ease and address. From their summer resorts in the depth of evergreen woods the Crossbills come, flocking in the fall, to all other parts of New England and beyond, generally associated with Pine Grosbeaks and Redpolls, always gentle, unsuspicious, and apparently quite at their ease.

"They are not so common, however, as the Red Crossbills are, and both species take such freaks in deciding their course of action that their appearance can never be relied upon.

"It need surprise no one to come upon a pair of Crossbills breeding anywhere in New England; . . . for they seem to be quite independent of weather or season.

Food

"Their diet is not so exclusive as many suppose; the birds may sometimes be seen helping themselves to decayed garden fruits. Mr. Maynard has observed them feeding on the seeds of beach-grass, and has also found the stomach filled with canker-worms. . . . The eggs of this species resemble those of the Purple Finch, and are probably indistinguishable from those of the Red Crossbill. Both species of Crossbills have a chattering or rattling note, usually uttered as they fly, but their true song is seldom heard south of their nesting grounds." (Stearns and Coues, New England Bird Life.)

Ralph Hoffmann describes the call-note of the Red Crossbill as a "loud *kip-kip, kip-kip-kip,* very like a note made by young chickens," but to me it has a more metallic quality.

If one has no evergreens immediately about the house, the Crossbills may be coaxed to come near by fastening ears of the small kerneled "popcorn" firmly to conspicuous branches or even by unsalted popcorn balls. As might be expected, a bird of such unique construction has given rise to many speculations, some scientific, others legendary and sentimental, as to its origin. If its beak is a development to meet food conditions, will it be gradually modified by the cutting down of the forests of conifers? Or will it slip away with other extinct species like the Auk and the Labrador Duck?

Questions for Teachers and Students

(1) Describe the bill of the Crossbill. (2) How does the bird use it? (3) Describe the plumage of the American Crossbill. (4) How does the adult male differ from the female? (5) What is the range of the Crossbills? (6) Do they come to us regularly? (7) What is their food? (8) At what season do they nest?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

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

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Annual Meeting of the National Association

The fourth annual meeting of the National Association of Audubon Societies was held October 27 in the American Museum of Natural History, New York City. Members were present from several states.

The President called the attention of the Association to the proposed reduction in the number of Directors from thirty to eleven, of which notice had been sent to the members of the Association. It was considered very much wiser to have a smaller Board so that at least a majority of the members would constitute a quorum. It was also suggested that an Advisory Board should be created to consist primarily of those members of the present Board of Directors who find it impossible to attend the meetings of the Board by reason of their residing, in most instances, many hundred miles from the office of the Association.

The following resolutions were unanimously carried:

"*Resolved* that the number of Directors of the National Association of Audubon Societies for the Protection of Wild Birds

and Animals be reduced from thirty, its present number, to eleven.

"*Resolved Further* that the Directors of the Association be authorized and directed to sign, acknowledge and file a supplemental certificate specifying such reduction."

At a meeting of the Board of Directors of the Association held on October 28, a quorum being present, the following changes in the By-Laws of the Association were presented by the Attorney, Mr. Samuel T. Carter, Jr.; notice of the proposed amendments having been sent to all members fifteen days previously in accordance with the By-Laws.

"The first paragraph of Article III to be amended to read:

"The control and conduct of the property and business of the Association shall be vested in a Board of Directors not to exceed eleven in number. The board shall be divided into five classes which shall be equal in number except that the first class shall consist of three members. This first class shall serve until the next annual meeting after its election and the others, for one, two, three and four years thereafter, respectively. Thereafter at each annual meeting those whose term of office may then expire shall be succeeded by a like number of Directors to serve the full term of five years. All Directors shall be elected by a majority vote of the members present."

The third paragraph of Article III was amended by providing that six Directors, and not five, shall constitute a quorum.

The third paragraph to be amended to read:

"Regular meetings of the Board of Directors shall be held on the last Tuesday of October and of every alternate month thereafter, except that when that day falls on a legal holiday the meeting shall be held on the following day.

"Special meetings may be called by the President or by any five members of the Board, the special object of the meeting being given in the call. Ten days' written notice of any special meeting shall be given to each member of the Board at his last known address. Six Directors shall constitute a quorum for the transaction of business.

"Upon the resignation or death of any member of the Board of Directors, the Board may proceed to elect a Director in his place to serve until the next annual meeting."

Article IV to be amended by striking out the word "standing" in the second paragraph.

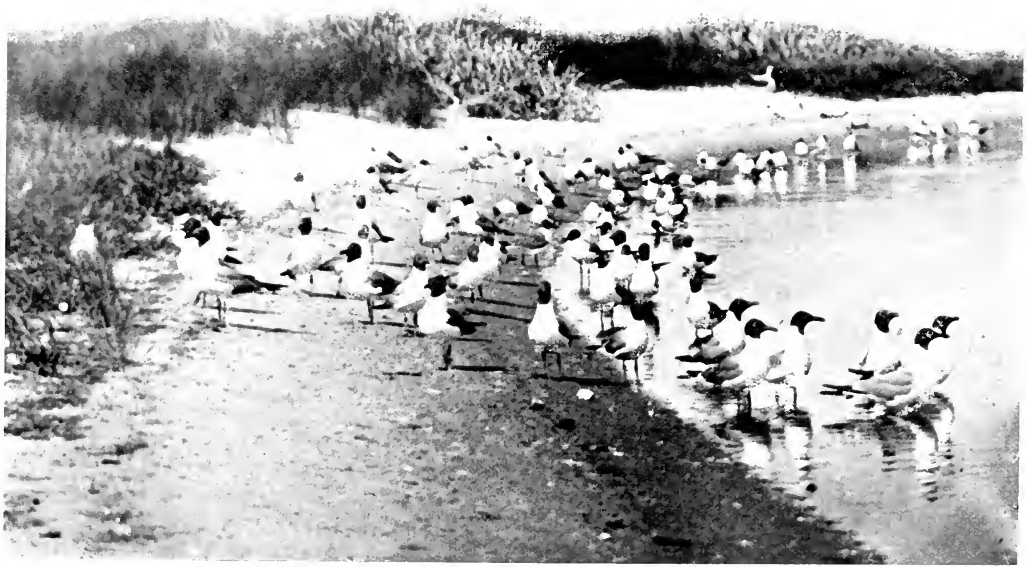
Article V to be stricken out and the following to be substituted.

"There may be chosen by the members of the Association from among their membership or otherwise at any annual meeting what shall be known as an Advisory Board consisting of not less than ten nor more than thirty members, of which Board the President of the Association shall be ex-officio a member and at whose meetings he shall preside. Members of this Board shall serve annually or until their successors are appointed. No meetings of this Board need be held and it shall have no control over or management of the affairs of the Association, except as the Board of Directors may desire from time to time to submit any matters to it. In such case, meetings of this Board shall be held on ten days' notice from the President of the Association."

The above amendments were adopted separately and thereafter adopted as a whole by a unanimous vote of all of the members of the Board present.

The following officers were elected for the ensuing year: President, William Dutcher; First Vice-President, Dr. T. S. Palmer; Second Vice-President, Dr. J. A. Allen; Secretary, T. Gilbert Pearson; Treasurer, Dr. Jonathan Dwight, Jr.

The President stated that Mr. Gifford Pinchot had invited the Association to appoint a Committee to coöperate with the National Conservation Commission. By direction of the Board the following Committee was appointed: Chairman, Mr. Edward Howe Forbush, Dr. T. S. Palmer, Frank M. Chapman, T. Gilbert Pearson, William Dutcher.



LAUGHING GULLS ON BATTLEDORE ISLAND, ONE OF THE LOUISIANA RESERVATIONS
Their tameness is the result of absolute protection. Photographed by Herbert K. Job

Annual Report of the National Association of Audubon Societies for 1908

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ADDRESS OF THE PRESIDENT

ANNUAL MEETING 1908

Members of the National Association: What this Association has accomplished during the few years of its existence speaks for itself, and it may be truly said, I think, that very few organizations of a mixed character, such as the National Association, which is partly philanthropic and esthetic, but mostly economic, have made such great strides in the estimation of the public, as well as in benefits conferred on the citizens of the country. When our work was started, there were few laws for the protection of wild birds and animals, especially those that are beneficial to agriculture and forestry; today this condition is entirely changed. Further, a sentiment for the protection of wild life could hardly be said to exist; today such a sentiment is widespread and is fast growing, owing to the educational work of the Audubon Societies through the press and by illustrated leaflets. What has been accomplished is a monument to the faithful and intelligent work of a few hundred people scattered throughout the country. Today, I can point with pride to a strong and thoroughly equipped organization, virile and full of activity and promise for the future outcome of the work of the National and State Audubon Members. The past is gone, and your President's brief address will be of plans for the future. Every well-organized and successful business follows a plan which has been studied and outlined in detail

in advance, and the future success of the work of this Association can be guaranteed only by a strict and rigid compliance with such a rule. To that end, I submit to the members of the National and State Audubon Societies an outline for future work, and some suggestions of how it may be carried on to the best advantage. Properly, the work may be divided into four heads, as follows: Finances, Education, Legislation, Reservations and Wardens.

FINANCES

The financial proposition is treated of first because without funds the entire work falls to the ground, and this the public must understand. This organization is doing a voluntary work of inestimable value to the country at large, and the citizens must support it. The foundation of all the wealth of the country is based on its agricultural and forestry products, and without birds such products would be impossible. The annual loss from insect and rodent pests at the present time is estimated to be $800,000,000. When the public begins to think about these figures and realizes that this annual loss may be reduced by such work as ours, I feel sure that an adequate support will be forthcoming. If it is not, this generation is simply robbing children yet unborn. This is a terrible charge, but it is a true one. If we permit the heritage of wild birds that still exist to be wasted and destroyed, we are robbing our children. We are simply trustees, and should seek to enlarge the estate in our care rather than squander it. The public, as trustees, are in honor bound to preserve the wild birds for those that follow us. We do not wish our children to feel about us as we do about our fathers, who permitted the wanton and useless extinction of the Bison and the Wild Pigeon. The income of the Association during the past year, as reported by the Treasurer, was $24,000. When it is apportioned among the several branches of our work and is divided among the forty-eight states and territories, each section gets but a very small sum. This sum should be multiplied many times. We need an endowment of several millions of dollars in order to expand our legitimate work. Is there any more worthy or meritorious work than ours? If you wish to endow and further education, give to the National Association a substantial fund to be devoted to educating the public of the country to the value of birds and their intimate relation to agriculture and forestry. This subject is of as great importance as sanitation, medicine, pure science or civics, to which millions of dollars are given each year. It is a serious question whether the preservation of birds is not of greater importance than either of the above subjects; for, without birds, it is a probable fact that the world would be uninhabitable. If you cannot endow, either during your lifetime or as a devisor, you can at least show your sympathy and give your support by becoming a life member or an annual sustaining member.

I realize that there are but few people who are qualified by wealth or spirit to create great endowment funds for special purposes, but there are some, and

to such I appeal for help at this time as well as in the future. Later, I will detail many special objects, any one of which is worthy of a fund of liberal size. The general public means you, and you can at least contribute once a year the small sum of $5, or, if you prefer, a life membership of $100, which will produce an annual fee in perpetuity. You will then have the satisfaction of knowing that your good deeds will follow you long after you have done with life's work. This appeal is not one to be passed by lightly and thoughtlessly. It is of too great an interest to you personally, for I know that no matter what your occupation in life is and just how you toil for your daily bread, somewhere the welfare and protection of birds touches and is of moment to your daily vocation. Surely, under these circumstances, you will be willing to do your part toward caring for creatures that are so intimately woven into your daily life and well-being. I forbear to touch upon the esthetic aspect of this question; the economic feature is of such momentous interest to you personally that no other incentive should be needed to cause you to do your part in this work.

EDUCATION

Try to imagine what the result would be in a generation or two if all the schools and educational institutions were to be closed. Ignorance and its sister, Crime, would take the place of peace and civilization. It is a sad fact that today there is too much ignorance regarding birds and their relation to the human race. It is a rare occurrence to find a person who can name a dozen of the common birds that may be found about his home, and it is still more difficult to find one who can tell how each bird is benefiting him. How wide-spread this ignorance is may be illustrated by the fact that a prominent paper recently published an editorial in which it recommended the extirpation of all Sparrows, on the ground that the European House Sparrow is a public nuisance. The editor, who should have been able to form correct public opinion, was so ignorant of birds that he was not able to differentiate between the great number of native Sparrows and the introduced pest.

There should be a great fund established under the direction of this Association, to carry on the work of education regarding birds.

Press Bureau.—In order to bring more rapidly to the notice of the public the vast importance of bird protection, I urge the expansion of our press bureau. There is no surer or more rapid method of diffusing knowledge of birds than through interesting, but absolutely correct stories of their habits and value. A large part of the success of the Audubon work may be attributed to the articles that appear at frequent intervals in the most widely read papers of the country. The first knowledge that our great benefactor, Mr. Willcox, had was derived from a newspaper item regarding the Audubon Societies; this fact alone warrants not only a continuation, but an expansion, of our press bureau. In this way, every hamlet can be reached at the minimum of expense.

Educational Leaflets.—A liberal portion of the educational fund should be used to increase our series of Educational Leaflets, illustrated with correct drawings in the natural colors of the birds, and giving a brief résumé of the habits of the bird, and especially of its economic value. It is of vital importance that Leaflets should be used in every public school in the country, especially those in the rural districts. There are a thousand species of wild birds in North America, each one of which is of greater or less value to humanity, and every child in the country should be able to recognize at sight the more common ones that are to be found in his locality, and should also be able to give some of the reasons why such birds are of benefit to him.

Our Educational Leaflets are the quickest and surest method of bringing this knowledge to the millions of school children of the country. In order to encourage among school children the practice of studying the habits of birds in the field, I strongly urge offering medals for the best essays on birds, based on original observations. I recommend a silver medal for each state, and a gold medal for the United states. Such a competition among the school children of the country would produce splendid educational results.

Field Agents.—The work of our field agents has secured results that are most gratifying, and fully warrant a very greatly increased staff of such important helpers. Instead of having a lecturer and organizer to care for ten states, on the average, we should have at least one for each state, and, where the commonwealth is very large and populous, there should be two or three. It is a well-established fact that the quickest method of getting good returns in sentiment and interest is to have a well-equipped person give illustrated bird lectures. The experience of this Association is that, wherever it has done the most work of this character, it has found it the easiest to secure good bird and game laws and the least trouble in their enforcement. There are several states where it is imperative that lecturers and organizers should be established at once; for in them, in the past, all of the efforts made have proved futile, owing to the fact that sufficient preparatory educational work had not been done. A great part of the hoped-for educational endowment must be used to increase our field staff

Traveling Lecture Outfits.—Supplementary to the work of the field agent, a large number of circulating lecture outfits can be used to advantage. These consist of a box of colored slides of birds, a small lantern to exhibit the same, and a descriptive lecture to be read by a teacher, Master Granger, or any interested person. Such an outfit costs about $150, and it can be kept at work almost constantly. There is a steadily increasing demand for these outfits, and at least one hundred of them could be used to advantage.

One of the most practical methods of educating adults about birds is to make exhibits at agricultural fairs. A comprehensive exhibit, when once established, can be moved from place to place with slight expense The good done by such object lessons of the value of birds to agriculture and forestry is very marked.

LEGISLATION

I urge the foundation of a fund to be devoted to the legislative work of this Association. The public cannot realize how very important this branch of the work is, and how necessary it is to maintain eternal vigilance. To illustrate: After considerable hard work, a satisfactory bird and game law is secured in a state. You may think this is the end of the story, and that our work is finished in that locality, but it is not. In some states, a session of the legislature is held annually, but, fortunately, in most of the Commonwealths, biennially. Every session of a legislature must be closely watched, in order to prevent amendments to our law that would weaken it. This requires that copies of all bills introduced must be promptly obtained, and that the Association be kept informed of the Committee to which the bill is referred and also of the dates of hearings by the Committee. When the bill is an important one, a representative of the Association must be present at the hearing and speak for or against it. The above outline is simply what has to be done each year to prevent undesirable legislation in one state; when it is multiplied by all of the states holding legislative sessions (forty-four in the coming winter), you can fairly judge of the magnitude of this branch of the work.

When the Association initiates legislation, which it very often does, success demands even greater efforts. In the matter of bird legislation, there is no resting-place; the only price of satisfactory bird protection is eternal watching of legislatures, for in an unguarded moment an amendment may be passed that will undo the work of years. Our field agents are experts in legislative work; but human strength has its limits, and they cannot respond to more than a fraction of the calls made upon them. In addition to watching forty-four legislatures for undesirable bills, the Association proposes to initiate the following new legislation this winter.

Game-bird Protection.—Anti-spring-shooting bills for Massachusetts, Rhode Island, Michigan, North Dakota, and Southern New Jersey. Until all spring shooting is prohibited, game birds will decrease.

Non-sale of Game Birds.—Bill to prohibit sale of any kind of game birds in New York state during the close season. Permission to sell game in the close season practically lengthens a season.

Non-game Bird Protection.—Bills to strengthen the plumage section in several state laws, notably in New York. This must be done in order to stop the sale of wild birds' plumage, especially that of the White Herons, and several other birds that are becoming alarmingly scarce.

Big Game Protection.—Bills to obtain increased protection for antelope, especially by securing a close season for several years in states where there is now an open season, viz., Kansas, Montana, Nevada, Oregon, Washington and Wyoming. The antelope is an animal of special scientific interest, as it is found in no other portion of the world. Our stock of the graceful prong-horn

is becoming very low, and means should be taken at once to prevent their extermination. In this connection, the Association hopes to secure the necessary funds to conduct experiments in winter feeding of antelope, elk, and other big game in the West. It is proposed to lease or buy suitable tracts of land, and grow alfalfa and other forage for such animals.

SNOWY HERON BROODING

Note the display of "aigrette" plumes. The almost total extermination of these Herons in this country was caused by the millinery demand for the "aigrette." Photographed on Louisiana Audubon Reservation by Herbert K. Job.

We also hope to coöperate in establishing a national bison herd in Montana, and in securing a close season for mountain sheep in Oregon.

Hunting Licenses.—Bills in Ohio, Iowa, Florida and Texas for resident licenses. Such licenses are a great additional protection to birds and game, and the fees derived from the sale of licenses furnish a fund to be used for the protection and propagation of game; this obviates the necessity of a special tax for that purpose.

Warden Service.—Bills to establish in Arkansas, Florida and South Dakota State Game Commissions. It has been found that game and bird laws are useless unless there is some official charged with their enforcement.

Warning Notices.—During the present year, permission was obtained from Postmaster-General Meyer for this Association to display its warning notices in all of the postoffices in the United States. These notices, printed on muslin for permanency, contain a brief résumé of the state game and bird laws, the Lacy (Interstate Commerce) Act, and the name and address of the Commissioner and State Audubon Society. To guarantee the expense of such a display of warning notices in every postoffice in a state might easily be assumed by a citizen who takes interest in good civics and the welfare of his home state. The amount of benefit assured under this plan is incalculable, for it prevents the plea of ignorance of the law by its violators.

RESERVATIONS AND WARDENS

Through the means of reservations, this Association has been able to demonstrate to the public the practical value of bird refuges. Whether the land has been set aside by the Federal Government, or is held under lease by the Association, the wardens who guard the birds occupying the reserves are paid by this Association, and this additional but necessary tax upon our resources has grown very rapidly during the past year, and bids fair to expand very greatly in the near future. The possibilities for good of this feature of Association work are so full of promise that I am warranted in making a special and urgent appeal for a large fund to be devoted entirely to the acquisition of bird refuges and the proper care of the same. The refuges already secured are for sea-birds, and, in addition to many more of these, there should be established refuges for land birds, especially such as Grouse and Quail, where experiments in propagation could be made. If the tract were large enough and had within its borders ponds, lakes, streams and marshes, the experiment could be made to cover wild fowl also. Here also might be found an opportunity to carry on experimental work with methods of attracting birds by artificial breeding-places, in order to demonstrate their real value to agriculture and forestry. It is impossible for me, in the space at my disposal, to more than hint at the wonderful results to the country that may be achieved in this direction; moreover, on such reserves scientific forestry might be practiced, and the reserves thus be made self-supporting in time. The plan of reserves must appeal to every enlightened citizen of the country, especially those who are nature lovers, and who deplore and would prevent the wasting of our natural assets; further, the educational value of the experiments conducted on such reserves would be very great, and would no doubt influence individual owners of large tracts of land, as well as municipalities, to apply the same methods on their estates and park lands.

In conclusion, I wish to emphasize the thought that the National Association

of Audubon Societies is thoroughly equipped to carry on the work of wild bird and animal protection, which is now known to be one of the most important branches of public endeaver for the advancement of our country's interests. How rapidly this work may be extended depends entirely upon the public itself. If this appeal falls upon unwilling ears and hearts, our progress will be slow, but if, on the other hand, our plans and suggestions outlined meet with the sympathy and support that they deserve, progress will be very rapid. Let me revert once more to my starting point. If you are the custodian of great wealth, devote a liberal share of it to this great civic and economic movement, or, if you are able to bear only a small portion of this burden of good, do it cheerfully and promptly.

REPORT OF T. GILBERT PEARSON, SECRETARY

In attempting to report a year's progress in the Audubon movement, one is necessarily limited largely to a statement of what has been undertaken in the various lines of endeavor, and to a chronicling of such tangible results as are apparent. Signs of a wide-spread crystallization of public sentiment for the better protection of wild birds and animals are annually becoming more apparent throughout America, and, even to observers who are but casually informed on the subject, the paramount influence which the Audubon Societies exert on the movement is a most pronounced one.

EDUCATIONAL WORK

The educational phase of the Audubon work has been pushed the past year with unabated vigor. Six new regular Leaflets have been published as follows: Herring Gull, Snowflake, Song Sparrow, Barn Swallow, Tree Swallow and Ruby and Golden-crowned Kinglets. In addition to the above, six special Leaflets have been printed. These are: For December—Six Reminders; The Cost of a Feather; February Hints; Winter Feeding of Wild Birds; Bob-white, The Farmer's Friend; and Putting up Bird Boxes. With two exceptions, all of the above-named papers of both series were written by our splendid worker, Mrs. Mabel Osgood Wright.

Twenty-nine thousand copies of these Leaflets were purchased by the State Audubon Societies of Massachusetts, North Carolina and New York; while over seventy thousand copies have been distributed from the New York and Greensboro offices of the Association.

A larger number of public lectures have been given by the officers and agents of the Association than formerly. Mr. Finley has spoken many times in the Northwest; Mr. Kopman in the lower Mississippi states; Mr. Forbush in New England; Miss Mary T. Moore, School Secretary, in Virginia and the Carolinas; Captain Davis in Texas; Mr. Job in various eastern states; Mr. Bowdish, Chief

Clerk in New York Office, in New Jersey; Mr. Chapman, our Treasurer and Editor of BIRD-LORE, in many of the eastern states, and President Dutcher at various points in New York and New Jersey. These addresses have been given usually with a view of arousing interest in securing better feeling to support advance legislation for bird and game protection. In some states, notably Connecticut, Massachusetts and Louisiana, the legislative results have been most gratifying.

The power of the press as an educational agent has long been recognized and used by the Association. Through a news agency twelve syndicate articles on various phases of the work have been sent to over three hundred of the leading papers in the United States. These articles have been copied in many hundreds of local papers, even getting into the "patent insides" and reaching the most remote corners of our rural communities. In addition to these, articles and interviews have been given out by the various officers and agents, while notices and comments of lectures and editorials inspired by these have combined to keep the Audubon work well before the American public.

The collection of stereopticon views illustrating wild-bird life has been enriched, and several sets of these have been sent out to be used by interested workers, many of whose names do not appear in this brief report. The Association also sends 1,200 copies of BIRD-LORE to members and contributors.

LEGISLATION

During the year sixteen states held either regular or special sessions of their legislature. We kept in close touch with all these, and when any changes in the bird protective laws were contemplated, either an officer or agent of the Association was present in person. In Georgia, Mississippi, Maryland and South Carolina, bills were introduced to place more restriction on hunters. These, however, all failed of passage. Only one actual backward step for bird protection was taken by a legislature. This was in Virginia, where the Audubon law was amended in such a way as to remove all protection from Hawks, Owls, Eagles, Blackbirds, Ricebirds, Bobolinks, Doves, Wilson's Snipe and Robin Snipe. The Association is now conducting an active campaign in Virginia with a view of remedying this evil at the next session of the General Assembly.

The Audubon workers are responsible for the passage of a splendid bird and game law in Louisiana. This new statute provides for a State Warden force to work under the direction of a Board of Commissioners, and is supported financially by a resident, non-resident, and alien hunter's license tax. The chairman and executive officer of this commission is Mr. Frank M. Miller, who for years has been doing such splendid work as President of the Louisiana Audubon Society. Strenuous efforts were made by the New Orleans dry-goods firms to repeal that part of the Louisiana Audubon law which prohibits the sale of the plumage

of birds or parts thereof, whether taken within or without the state. We were entirely successful in defeating this measure.

In Rhode Island, we aided in the passage of two very helpful measures; one of these prohibits the killing of Shore Birds from January 1, to August 1. The other provides for increased appropriations of state funds for the game commission.

In New York State, the entire bird and game law was revised at the suggestion of Governor Hughes. Among other important features, the new statute protects the Wood Duck at all times. New York is the third state to take this wise measure for the preservation of this beautiful and fast-vanishing game bird.

Massachusetts, as usual, took additional advanced ground in game protection. The powers to the wardens were enlarged, gray squirrels were declared protected entirely for two and a half years, and provision was made for the appointment of a State Ornithologist. We are much pleased to announce that our New England Agent, Mr. E. H. Forbush, has since been appointed to this important office.

RESERVATIONS

Nine additional reservations have been formed during the past year by President Roosevelt upon the recommendation of President Dutcher. These are Mosquito Inlet on the East Coast of Florida, Tortugas Keys, Florida; Key West, Florida; Lower Klamath Lake, Southern Oregon and Northern California, Lake Malheur, Oregon, Chase Lake, Dakota; Pine Island, Matlacha Pass and Palma Sola, all on the Florida Gulf Coast. In all, there are now twenty-three National Reservations under the care of this Association.

WARDEN WORK

During the year, forty-nine duly appointed wardens have guarded the breeding colonies of birds which are protected by this Association. These wardens are located as follows: In Florida, six; Louisiana, six; Maine, fifteen; Massachusetts, one; Michigan, two; Minnesota, one; New Jersey, two; New York, two; North Dakota, one; Oregon, one; South Carolina, one; Texas, one; Virginia, seven; Washington, six.

Forty-seven species of birds have received special protection by the activities of these officers, while incidental protection has been afforded to many more. The most numerous species in the colonies of the Atlantic Coast are Herring and Laughing Gulls, Brown Pelicans and various species of Terns. On the preserves in the interior are Ducks, White Pelicans, Gulls and Grebes; and on the Pacific Coast, Cormorants, Puffins, Murres, Gulls and Petrels. Practically every protected species in these colonies shows a marked increase in numbers. In many instances the wardens are able to keep a very close watch on the actual

number of eggs laid and young raised. In other cases where the birds gather in great masses, or are extended over wide areas, it is impossible to form an exact estimate of their numbers. However, we believe that the reports of the wardens are sufficiently correct to prove of interest. These show that during the past year the birds which gathered in the protected colonies numbered something over 658,500. The number of eggs believed to have been laid was 296,100, and the number of young raised was 227,731.

As usual, many eggs and young were lost as a result of storms and high tides, but it is believed the colonies suffered little from the depredation of eggers, while the guarded territory is thought to have been entirely free from inroads of the millinery-feather gatherers.

SECRETARY'S WORK

Besides conducting the ever-increasing correspondence and general work of the Southern office, your Secretary has spent much time in the field representing the Association in various capacities. In the interest of legislation, he has visited Florida and lectured at various places in Virginia. At the Summer School of the South at Knoxville, Tenn., he conducted for three weeks a class in bird study of over one hundred Southern teachers, besides giving public stereopticon lectures. He attended the Indiana State Audubon Society meeting at Fort Wayne, the International Conference of Fisheries held in Washington City, and various public gatherings in North Carolina, at many of which he gave addresses on bird protection and the Audubon work. He made a tour of inspection through South Carolina and secured evidence of many violations of the Game laws. For example, one hotel was found to have in cold storage 3,000 Quail, which were being served illegally to the guests. His work has also brought him to New York on various occasions to canvass for funds and for conferences with the President.

REPORTS OF FIELD AGENTS

REPORT OF EDWARD HOWE FORBUSH

The work undertaken by your agent in New England during the year has included the following principal lines of action: (1) Educational and publicity work, (2) legislative work, (3) investigation of the present status of the wild fowl, shore-birds and sea-birds and measures needed for their protection, (4) the work of organization.

A new feature of the educational work consisted in the publication, in fifty New England newspapers, of a series of articles on birds and bird protection, written monthly or semi-monthly as time allowed. This series has been continued through the year. Eighty-two talks and lectures on the utility of birds and the means of attracting and protecting them have been given in Connecticut, Rhode Island, Massachusetts, New Hampshire and Maine. The audiences have consisted mainly of students of universities, colleges and schools, and members of clubs and farmers' organizations, aggregating nearly twenty thousand people. Most of these talks were illustrated with lantern slides or colored charts. They have resulted in a great deal of practical work among the young people, many of whom have begun to feed birds and put up bird-houses. No work has been done in Vermont this year; but it may be possible to reach that state before the end of the season.

The detailed results of the legislative work of the year have been given already in BIRD-LORE, but may be reviewed briefly here. This work was interfered with somewhat by lecture engagements, and owing to this and certain peculiar conditions was not uniformly successful; but all bills adverse to bird protection were defeated. In Massachusetts, the following were the principal bills passed: An act requiring the licensing of all resident hunters, another giving the deputies or game wardens the right to arrest, without a warrant, suspected persons refusing to exhibit their game on demand; another shortening the open season on upland game-birds, two establishing state forest tracts or reservations, and one establishing the office of State Ornithologist.

The first two acts will help much in the enforcement of the laws for the conservation of game and birds. The establishment of an official State Ornithologist in every state of the union would be a benefit. Such an official could save the people of any state far more than his salary each year by instructing the people in the economic value of birds and the necessity for their protection.

In Rhode Island an act was passed establishing a close season on all shore birds from January 1, to August 1, thus giving shore-birds their first real statutory protection in that state, and an additional appropriation was secured for the use of the Bird Commissioners. No other New England state has legislative sessions in 1908 except Vermont, where the legislature does not convene until October, or after the date of this report.

Educational and legislative work occupied most of the time, until June, when the investigation into the status and present needs of the wild-fowl and shore-birds was begun with a view to representing the facts to the legislature of Massachusetts at some future time. The haunts of these birds were visited and much evidence was obtained from sportsmen, gunners and naturalists, regarding the former abundance of the birds and their present depletion. This work is still incomplete. In July, all the time that could be spared from correspondence and educational work was given to an investigation of the condition of certain Gulls, Terns, Herons, Sandpipers and Plover along the Massachusetts coast. Seven trips were made to the remoter coasts and islands. The Gulls and Terns were seen to be increasing under protection, with the possible exception of the Least Terns, which are still very few in number and not favorably situated for protection. The number of Common and Roseate Terns seen on these coasts and islands may be estimated safely at between twenty-five thousand and thirty thousand. Even the Laughing Gulls of Muskeget, which were nearly exterminated at one time, now number fully a thousand (estimated), and their distribution to other localities apparently is beginning. A few Herring Gulls now remian for the summer. The Piping Plover seems to be nearing extermination. Only one colony was seen and elsewhere only an occasional pair or two were met with. A Massachusetts law allows the shooting of these birds in July and August, when their young are still small, and thus far the legislature has refused to amend this statute. The colony of Least Terns and Piping Plover at Katama Bay can be saved only by keeping a warden there all summer and stopping all shooting. It is hoped that this may be done another year. Upland Plover appear to be increasing slightly under protection in two localities, but Killdeer Plover are close to extermination in Massachusetts. The Night Herons seem to be now holding their own.

The work of organization has consisted in part of spasmodic attempts to increase the numbers or efficiency of some of the state Societies. Some addition was made to the membership of the Massachusetts Association through the efforts of your agent, and a great deal of work was done to organize the members of granges, women's clubs, and other organizations in behalf of bird protection. A trip to Bar Harbor in August resulted in awakening some interest in bird protection there, and securing some influential members of the summer colony as members of the National Association. One lesson derived from the experience of the year is found in the great and growing demand for educational work. Your agent might have made arrangements to give at least 600 illustrated lectures to farmers' organizations, schools, etc., had his time permitted. A first-class lecturer on the utility of birds, the necessity for their protection, and the means to this end is needed in every state, and his time would be fully occupied. The demand for such work is tremendous and its results would be immediate. During the legislative season another man is required in each state to organize the forces of bird protection and lead them to victory. Such a man could devote

PORTION OF A COLONY OF WHITE PELICANS ON MALHEUR LAKE RESERVATION
The center bird is feeding young. Large colonies of these birds are found on both Klamath and Malheur Reservations.
Photographed by Finley and Bohlman

his time to strengthening the National Association and the State Associations and increasing their membership and income during the rest of the year. Thus twelve men could be used to advantage in these states.

It is impossible for your agent in New England to do the work of twelve men, but he believes that the time will come when the importance of this work will be recognized, and then the means and the men will be forthcoming.

REPORT OF WILLIAM L. FINLEY

On May 14, 1908, Mr. Herman T. Bohlman and I left Portland to make a study of bird life in southeastern Oregon, with the hope of reporting on conditions and securing additional reservations for the protection of our water fowl. The trip was taken in Mr. Bohlman's 'White Steamer' which was specially remodeled and arranged with complete camping outfit. The machine was shipped to The Dalles by boat, and from there we traveled straight south through Shaniko and Prineville to Burns. The roads were often rough and steep, but we reached Lake Malheur without accident, after a 300-mile run.

Lake Malheur is a body of water about twelve by fifteen miles, and, like the other lakes through southern Oregon, has a vast area of tule land surrounding it. Malheur differs from Harney and Klamath Lakes, in that it is a shallow body of water only a few feet deep, and abounds in a great variety of plant life. For this reason it is the best feeding-ground in the fall and spring for the great flocks of migrating water-fowl.

In order to explore this region, we first tried a folding canvas boat, which we secured at Burns, twenty-five miles north of the lake. This had the advantage of being light, but it was too small to carry the equipment we needed for a week's trip on the lake. We needed a double-ended flat-bottom boat that could be used in shallow places to make way through the tules. We made three different trips out through various sections of this vast lake district. We were out for nine days during the last trip.

We had to undergo many hardships in exploring this region to find the different bird colonies. We spent much of our time searching to see if we could not find a few American Egrets, for great colonies of these birds formerly inhabited this region.

After almost two months in this country, we discovered many large colonies of breeding birds. The most important, perhaps, was a colony of 500 White-faced Glossy Ibis, which were nesting in the same locality with the Black-crowned Night Herons. We found several colonies of Great Blue Herons and Farallone Cormorants nesting together. Besides some small colonies, we found one locality where about two thousand Western Grebe were breeding. The most populous colony we found was one composed of thousands of White Pelicans and Ring-billed and California Gulls nesting near together. In addition, we found a colony of Eared Grebe nesting with a colony of Western Grebe; also several small col

onies of Forster's and Black Tern, one colony of Caspian Terns that were nesting with the California Gulls; Pied-billed Grebe and American Coots were common all through the lake region. At one place we found a large number of Coots living about the same locality.

In addition to Black-necked Stilts, Avocets and other wading birds, great

WHITE-FACED GLOSSY IBIS
One of a colony of five hundred on Lake Malheur Reservation; the only colony known in Oregon.
Photographed by Finley and Bohlman

numbers of Ducks and Geese lived all through this region. The southeastern portion of the lake is a great breeding-ground for Canada Geese. We saw many old birds with flocks of young almost grown. In one place I counted 540 old and young geese. Further on I counted 360 more. Still further on I counted flocks that numbered 570 Geese. This made almost 1,500 Canada Geese in one part of the lake that were seen within an hour. There were likely thousands more all through the tules.

Until a few years ago the White Egret (*Herodias egretta*) was quite abundant about Malheur lake, but after a month's search we saw but two of these birds and found no sign of their nests. In 1898, a plume hunter told me he made hundreds of dollars in a day and a half, shooting White Herons on Lake Malheur. He has often made as high as $400 and $500 a day killing these birds. This shows that White Egrets were very plentiful on the lake. The slaughter was continued, till now the birds are practically extinct.

THE WESTERN GREBE

The greatest sufferer in the West at the hands of the market hunter. The snow-white breasts of these birds are used for capes, muffs and other purposes. Photographed by Finley and Bohlman

This hunter is the type of the professional plumer who is responsible for the great decrease in numbers of our plumaged birds. He began hunting in the early seventies; he has hunted Herons and other plumed birds in Louisiana, Florida, Mexico, the West Indies, and up and down the Pacific Coast. In 1886-1889 he shot on Tulare Lake in California, often making $400 and $500 a day killing Herons. Whenever he could not make more than $120 by nine o'clock in the morning, he said he would seek better hunting grounds. He not only followed the trade of the plume hunter in the summer, but for years he was

hired by parties in Spokane, Portland, Seattle and San Francisco to shoot Ducks and other wild fowl. For years he shot Grebe through southern Oregon and California. He was one who helped to exterminate the great colonies that formerly lived on the northern borders of Tulé Lake. He has hunted both the Upper and Lower Klamath, Tulé Lake, Goose Lake, Clear Lake, Warner's Lake, Tulare Lake, Harney Lake and Lake Malheur.

The plume hunters have been at work continually through southern Oregon and northern California, killing thousands of Grebes and other birds. It is a difficult matter to stop shooting in such a vast area that is so profitable to the plume hunter, but we expect to succeed. There are at present six indictments against plume hunters filed in the District Attorney's office at Burns, for shooting Grebes on Malheur Lake. These indictments cite the killing of 400 Grebes by one hunter and 1,000 by a second hunter. These two plume hunters heard in advance that indictments were to be made and escaped to California, so they have never been brought to trial. At the time the indictments were made, Sheriff Richardson, of Harney county, seized a number of sacks containing 800 Grebes skins at the express office at Burns. These skins, as well as many others, were sent from Lawen, a small town near Malheur Lake. They were addressed to New York City.

The most important step in the protection of water-fowl in the West was recently taken by President Roosevelt, when on August 8, of this year, he set aside Lower Klamath Lake to be known as the Klamath Lake Reservation, and on August 18, Harney Lake and Lake Malheur were set aside as Lake Malheur Reservation. Although these lakes have for years been the richest field for plume and market hunters, the field is not yet entirely depleted, nor do the plume hunters want to abandon these lakes as long as any plumage birds are left.

I do not believe there is a more populous water-bird district in the United States than through southern Oregon. The President has given us the best reserves that can be secured. This breeding ground is undoubtedly the nursery of the great flocks of Ducks and Geese that invade sections of California. If it were not for these reserves, I believe the time would come in sections of California when the sportsmen would have little or no Duck shooting. The reservations should appeal widely to sportsmen.

To show how little observance has been given to the game laws in southeastern Oregon, it has been the custom for parties to go down to Malheur Lake in the fall when Swan, Snow Geese and other birds are migrating, and kill these birds merely for the feathers, which are sold at so much per pound.

Ducks and Geese were so common formerly that a party of hunters could easily secure a wagon-load in a short time. It was not an uncommon thing for a party of hunters to go out to the Lake to shoot and return with as many Ducks as the wagon could hold. The hunters generally stopped on the corner of some street and passers-by could help themselves till the supply was exhausted.

Water fowl are still very plentiful through this region, yet I have questioned many of the older residents and others and find that there is little comparison between the number of birds now and those of a few years ago. Ducks, Geese and Swan were there in such numbers, a few years ago, that it seems a few years could make but little difference. Yet I am told that on account of the unrestricted shooting there has been a constant noticeable decrease year by year. The wholesale decrease has been within the last five or six years.

In the past, there has been no warden to protect the great region about Malheur and Harney Lakes, but, in order to see that the game laws are obeyed, through State Game Warden Stevenson we have secured the appointment of two wardens, one at Burns, Mr. George Sizemore, and one at Narrows, Mr. Charles Fitzgerald.

The attention of the National Association is called to the condition of some of the larger animals in this state. On account of insufficient protection, some of these are rapidly disappearing and are likely to become extinct in this state unless needed protection is secured. There are a few bands of elk left in the state, and a law should be enacted giving these animals complete protection for five or ten years.

Mountain sheep are now very scarce in Oregon. They have never been found except in the eastern part of the state. As we have had no law for the protection of these animals, they have disappeared rapidly.

Antelope were formerly quite common through southeastern Oregon, especially in Harney and Malheur counties. Dr. L. E. Hibbard, of Burns, estimates that there are now not more than twenty-five hundred antelope in Harney county. The antelope has marvelous vitality, but its home is on the open plain. It has absolutely no retreat from the modern long-range rifle. It is readily hunted to extinction. As population advances, this animal must go unless some radical steps are taken. The following is a good example of how the antelope have disappeared.

Five years ago, in Harney Valley a bunch of forty-five antelope lived on the rye-grass flats southeast of Burns. They ranged from there to the east side of the valley. They could be seen almost any day during the summer of 1903. By 1905 the herd had decreased to about twenty-five. Now all these antelope have disappeared. Years ago plenty of antelope ranged north of Burns. These have disappeared. This is an example of what has been and will be repeated as population increases, until the last antelope is gone. Immediate protection is needed for those remaining.

STATE AUDUBON REPORTS

The brief reports submitted by the several state societies show in the main a growing activity in the special line of work which most of them follow, i. e., the education of children that they may have a more intimate knowledge of the live bird in its natural surroundings. The love of birds once established in the mind and heart of a child is a guarantee that thereafter bird protection will occupy a large place in the child's thoughts, and is also a warranty of the growth and strength of the Audubon movement for years to come.—WILLIAM DUTCHER.

Arizona.—An Audubon Society was organized last April. The following were chosen officers of the Society: Mr. Herbert Brown, President; Rev. W. W. Breckenridge, Vice-president; Mrs. Harriet B. Thornber, secretary; Mrs. Florence McCallum, treasurer. The Society adjourned during the hot summer months, but is ready now to take up work for the coming year. Requests to become members are constantly being made by people of education and ability. Arizona is a rich field for Audubon work.—MRS. J. J. THORNBER, *Secretary.*

California.—During the past year, much of our energy and most of our money has been used in educational work. About ten thousand Leaflets, reports, warning-cards and signs have been distributed, including large editions of Leaflets No. 5, a new Dove Leaflet and a digest of the bird laws, a great many copies of which were placed with game-wardens, principals and teachers in the public schools, and interested workers in all parts of the state. It is pleasing to be able to report that the Society has been able to supply every request for educational literature and warning-signs made during the year.

Fifteen illustrated lectures on the economic value of the wild birds were delivered by the secretary. Professor Stebbins, of the State Normal School at Chico, and Dr. Emily G. Hunt, of Pasadena, have also greatly aided our work by illustrated lectures before local organizations and schools; and Prof. L. H. Miller, of the State Normal School at Los Angeles, has given a number of interesting and instructive bird talks in aid of our work.

An effort to check the traffic in bird skins and bird eggs, carried on in violation of the state law, has brought about very much better conditions with regard to the "collecting" evil; and, with continued coöperation of the State Fish Commission, which issues permits under the law for scientific collecting, the abuses of bird and egg collecting, more or less in evidence in almost every state, will soon be reduced here to the minimum.

The Society continues to combat the practice of killing Doves in the nesting season, and by the circulation of a large amount of educational literature fully covering the details of this species of cruelty, and the aid of humane sportsmen

in sympathy with our cause, has brought about a strong public sentiment against the practice, which must eventually result in a much later closed season for the Mourning Dove than that at present provided by the state law.

The Audubon Society of California finds itself strong and well equipped in the middle of its third year. It never before had so many good friends, generous supporters and active, capable workers, willing and ready to give gratuitous service for the saving of the birds. More than fifty new members, including a large proportion of life-members, have been added during the past three months, while a strong and active local Society was organized at Riverside and has become affiliated with the state organization. Six junior societies were also organized during the year.

The local Society at Pasadena, the oldest organization affiliated with the State Society, has made a record worthy of special mention, having added about fifty active workers to its membership rolls and distributed several thousand Leaflets and warning-signs on its own account. This Society holds monthly meetings for interchange of ideas and bird study, and is exceptionally active in the pursuit and prosecution of violators of the bird laws in its field.—W. Scott Way, *Secretary*.

Connecticut.—The Audubon Society feels much gratified that it was largely instrumental in having Mr. Wilbur Smith appointed game warden for Fairfield county; he gives his entire time to the work; he is a very valuable member of our executive committee.

Since last spring, a column has been conducted in the Bridgeport 'Evening Telegram,' Saturday edition, entirely in the interest of bird protection; it is conducted by a lady member of our executive committee and is published in connection with the 'Kind Deed' club of the paper. The Society sends this weekly copy of the paper to every local secretary of the Society in the state, and uses the column to further the interests of the Society. This year, we have had a 'school secretary,' Miss F. H. Hurd, of South Norwalk, who works in the schools and stirs up interest among the children. We have sent out our usual traveling libraries, portfolios, and bird-charts, and have distributed literature. We have added 645 associate members, 5 sustaining members, 5 teachers, 24 regular members, 206 junior members, a total of 885. We shall probably have more names reported before the annual meeting, October 31. The Executive Committee has held eight meetings during the year, with an average attendance of eight members.

On Bird and Arbor Day, a party of four members of the Executive Committee visited eleven schools in Fairfield, and one of the party spoke to the children in thirteen rooms about protecting the birds. The children seemed much interested, and contributed their share in reciting or singing songs about birds and flowers.—Helen W. Glover, *Secretary*

Delaware.—The work of the Delaware Audubon Society continues along the same lines, that is, getting new members. Apart from this, there is nothing of special mention.—FLORENCE BAYARD HILLES, *Secretary.*

District of Columbia.—The work of our Society has progressed steadily during the past year. The events of greatest interest being Mr. Kearton's lecture and our usual field meetings. The latter have been well attended, a total of ninety persons going on the five walks and 110 different kinds of birds being seen. On the second walk, a colony of Night Herons was visited, and between fifteen and twenty nests were found. Most of these contained young, who filled the woods with their hissing. In their anxiety, the parent birds came so near that their red eyes and the long filamentous plumes sould be easily distinguished.

On another day, the Blue Grosbeak, one of the rare birds of this region, was noticed, and on the last walk the great event of the day was the sight of the Pileated Woodpecker, which has been seen in the vicinity of Washington only four times in twenty years.

The five walks were productive of a number of rare birds; in addition to those already mentioned, were Henslow Sparrow, Summer Tanager, Golden-winged, Hooded, Kentucky and Worm-eating Warblers, Pine Siskin and Hairy Woodpecker.

Each year, our Society gives a number of free lectures, hoping to arouse the intelligent interest of the public. At our annual meeting in January, we had Mr. Edward Avis, of New York, whose imitation of bird notes by whistling, and on the violin, was much enjoyed, especially by the young people.

All of our meetings have been well attended, but the treat of the year was the lecture by Mr. Kearton, of Surrey, England, illustrated by a remarkable series of moving pictures of birds (the first ever taken). These pictures were shown for the first time in America at the Executive Mansion, on the invitation of President Roosevelt. Mr. Kearton's next lecture was given under the auspices of the National Geographic Society, from which 500 persons were turned away; so that our Society considered itself very fortunate to secure Mr. Kearton, and at once engaged the Columbia theater. To defray the unusually heavy expense, we charged an admission fee of twenty-five cents, and by five o'clock in the afternoon of the day on which the seats were put on sale not one of the 1,300 seats was to be had.

The lecture, with its marvelous pictures, was thoroughly enjoyed by all who had the privilege of hearing it. Mr. Kearton received an ovation, and was so much pleased with the appreciation shown that he declared his intention of returning to the United States next year to make a tour of the country. If he does, we can only hope that all members of the various Audubon Societies may have the privilege of hearing him.—HELEN P. CHILDS, *Secretary.*

Florida.—While the work of the Florida Audubon Society goes on with appreciable and increasing interest, it meets with many discouragements in non-enforcement of laws, illegal shooting, trapping of birds, plume-hunting, the shooting of many birds which are ignorantly supposed to be destroying crops, and the slaughter of birds by the so-called 'sportsman' tourist.

The membership list has increased, while the subcribers have responded as in former years, which, owing to the recent financial depression, was most gratifying.

Warning-notices have been posted at all points where flagrant depredations occur. In this we have, as always, the help of the Southern Express Company. Printed cards giving a summary of the laws of Florida regarding birds, their nests and eggs, were placed in hotels, post offices and stores. Leaflets, circulars, reports and bulletins from the Agricultural Bureau at Washington have been widely circulated. The 'Times-Union' in its weekly edition publishes a sheet devoted to birds, especially as to their value to the farmer and fruit-grower; it has excited interest and led to the forming of new auxiliaries. Mrs. Bradt, in the 'Sunshine Society' column, never forgets the birds.

'Bird-Day' has been observed with appropriate exercises in many towns, both under the auspices of women's clubs and schools; notably at Ormond and Fairfield. At the commencement exercises of the Robert Hungerford Industrial and Normal School (colored), in Eatonville, prizes were given for bird essays. A prize for "protecting nests and eggs" was given to Mrs Kirk Monroe's Boys' Club, 'The Rangers.' One year's subscription to BIRD-LORE was given as a prize at Sanford.

At the General Federation of Women's Clubs held in Boston in June, Mrs. Kirk Munroe, as secretary of the Florida Federation, had on exhibition and for distribution Leaflets and reports of the Florida Audubon Society.

There have been but three publications this year, but one of our Leaflets was adapted and reprinted by a sister Society. The most important of those printed was the 'Check list of Florida Birds'; it was modeled after the check-list of the Massachusetts Society, and arranged by Mr. Williams and Mr. Bowdish, of the National Association. Seventy-five Audubon charts are in circulation. It is a matter of regret that no chart has been published of the 'birds of the South,' which would be of great benefit to Florida, Louisiana, Texas and all states below the Carolinas.

The most recent reservation on the east coast, known as 'Mosquito Inlet,' adds another refuge and breeding- as well as breathing-place for Florida birds. Our thanks are due to President Roosevelt, our first Honorary vice-president, and to our honored vice-president, Mr. George N. Chamberlin, of Daytona, Florida, for their efforts and interest in securing this reservation.

White Egrets, Blue Herons and Limpkins have been seen in new nesting-places. Quails have increased, as have many other birds. We have appeals from many quarters that Robins be put on the protected list. The importance

and need of a Game Commissioner is felt at every turn, although our sheriffs have given more help than formerly.

We should give public expression of our sorrow at the death of Hon. George W. Wilson, editor of the 'Times-Union.' Mr Wilson was a vice-president of our Society from its foundation, and his generous help and sympathy will never be forgotten.

In the death of Ex-President Grover Cleveland, we meet with the loss of an Honorary Vice-president. Mr. Cleveland approved the efforts of our Society, and was a defender of the rights of the lower order of creation, as well as of the higher. While he was a sportsman, he was so in its best sense; for he believed that no cruelty or wanton sacrifice of life should be allowed or practiced

I but voice the feeling of all the officers of the Florida Audubon Society, as well as of all bird lovers, when I make a plea for some action to be taken by the National Association, in concert with the State Audubon Societies, to place restrictions on the shooting from 'motor-boats,' of birds and animals. Their destruction or slaughter is not perhaps realized; but in Florida, with its rivers, lakes, and beautifully wooded creeks, where birds have their haunts, is offered every inducement for a motor-boat, and shooting from it soon becomes a reckless amusement; for, as the boat does not stop in its course, the dead or dying creatures are left on the water or shore. We have reports of quantities of wild Ducks shot in this way, which have been found on the water or on the banks.

The picture is before you—the cruelty is apparent! Cannot some action be taken to prohibit it?—MRS. KINGSMILL MARRS, *Chairman of Executive Committee.*

Illinois.—The annual meeting was held in May, and was most interesting because of the address of Dr. Lynds Jones of Oberlin College, Ohio, on 'Sea Birds of the Washington Bird Reservation.' At this meeting a resolution was passed, asking that the subject of bird protection be considered at the meetings on conservation of the nation's resources to be held in Washington. Doubtless, the Illinois Audubon Society was not the only one that felt that the birds deserved a place as a 'resource' of the nation, and those engaged in forestry work should recognize, more than they do, their important part in the preservation of the forests. The Society has sent out over seventeen thousand Leaflets this last year, the largest number in its history. It has also sent the little paper 'By-the-Wayside' to 100 teachers in the state.

The Illinois Arbor- and Bird-Day Annual of this year was a credit to the state, much of its interest being due to the work of two members of the Audubon Society, Professors F. L. Charles and Thomas L. Hankinson.

The Audubon Department in 'School News,' under the charge of Mrs. E. S. Adams, has been continued, and has brought large results in the increased interest of teachers and scholars. Owing also to the fact that in the Illinois 'course of study' teachers were advised to write to the Audubon Society for

material about birds, the secretary was almost overwhelmed in the spring with letters from teachers and pupils all over the state, and from other states as well. As there is an unusual demand for Leaflets at the date of writing (October), the interest bids fair to increase steadily this year.

A sketch of Audubon's life, by Mr. E. B. Clark, was published in School News, which this Society expects to issue as a Leaflet.

We have for the first time published a short report to be sent to members, covering the first decade of our work.

We have added to our plant two new traveling libraries (known as the 'Nancy Lawrence Memorial' and the 'Directors' libraries), and five sets of pictures, 100 in each set, with descriptions of the birds under each picture. These sets are boxed, and form a loan collection for schools; they have proved a popular addition to our working force, and they—the lecture and the libraries—have been in demand almost constantly.

We have heard from about eighty of our 102 counties, but are doing no better in the matter of local secretaries.

We wish to claim a share with Florida in the honor due Mr. George N. Chamberlin, of Illinois and Florida, in the setting apart of the Mosquito Inlet reservation, as Mr. Chamberlin is one of our vice-presidents.

We have expended during the year $303.09, and have received $404.09. As we started the year with a balance of $196.93, our balance in May was $297.93. —MARY DRUMMOND, *Secretary*.

Indiana.—It used to be said, "When you are in Rome, do as the Romans do"; a later bit of advice is "When you are in Rome, tell the Romans how you do it." In reporting for this year, I shall be guided by the latter.

The routine Audubon work has gone on about as usual this year, but we did hit our 'high-water mark' in our annual meeting and that I propose to tell about. For years we have held our annual meetings at various cities out in the state, always having the coöperation of the school authorities, the local Audubon people and usually the club women. The meeting consists of four sessions and the programs are so planned that we have two evening meetings, popular in character, for the general public. In the early part of Friday morning bird talks are given in every school in the city—not a child in school but hears about the birds. Later in the morning is held a meeting for Audubon workers for the reading and discussion of special papers, plans, etc. In the afternoon there is a meeting designed to be especially helpful to teachers and the older pupils of the schools, and in the evening the popular meeting.

The meeting this year was held at Fort Wayne, the largest city we have yet attempted, because of the difficulty of getting enough attractive speakers to give bird talks in all the schools Friday morning. Fort Wayne has a strong local Society and promised help on the school bird talks and they supplied more than half of the speakers for their seventeen schools.

The Thursday evening meeting was held in the High School Auditorium with addresses of welcome, for the city, by Judge Taylor; for the schools, by the school superintendent and for the local Society by its president. Mrs. Gene Stratton-Porter, the author of 'The Song of Cardinal' and 'What I Have Done with the Birds' gave an address on 'The Experiences of a Bird Woman' telling of her work in getting photographs to illustrate her books. The music for this as well as Friday evening was furnished by the Girls' Orchestra from the State School.

Friday morning, from 9 till 10 o'clock, was 'Bird Day' in the Fort Wayne schools. Just a few of the schools had to wait for their "talks" until early afternoon but at some time in the day every child in the Fort Wayne schools heard about the birds.

About 10.30, there was a conference of Audubon workers in the Museum Room of the Carnegie Library, the regular meeting place of the local Society. A history of the local Society was given by its president, a paper on bird anatomy by C. A. Stockridge, the economic value of birds by W. W. Woollen. Professor Mead, principal of the school in the Institute for Feeble Minded Youth, read a paper telling 'What Birds Have Done for Defective Children,' which presented a phase of Audubon work not familiar to the ordinary bird student. For this reason Professor Mead's paper was of unusual interest and if I had not started out to tell the Romans how we do our annual meetings, I certainly should tell of the marvelous results obtained with these children through bird- and nature-study.

Friday afternoon the schools were dismissed earlier than usual to give teachers and older pupils an opportunity to hear Dr. Dennis. Dr. Dennis is very popular not only with his old students at Earlham College but with Indiana people in general and the hall was filled to listen to his talk on 'How to Attract Birds to Our Home and School Grounds.'

This year, for the first time, we had the pleasure and inspiration of the presence of one of the officers of the National Association, the secretary, Mr. T. Gilbert Pearson, who not only filled his assigned place on the program, but helped out in the morning bird talks in the schools. As usual at all our meetings, the interest increased with every session and at the evening session of Friday the High School Auditorium was crowded to hear Mr. Pearson tell of the 'Work of the Audubon Societies of America.' The audience was deeply interested in the lecture and more than delighted with the stereopticon illustrations. Miss Florence A. Howe, *Secretary.*

Iowa.—The following is a partial report of work done in 1908:

During the spring months, ten-minute talks were given the pupils of different grades in the Waterloo Public Schools, aggregating 1,100 children, thus arousing new interest in the study and protection of birds and resulting in the securing of the names of several adult and nearly one hundred junior members for the

Audubon Society. Over one thousand colored plates and educational Leaflets were given the teachers, with the suggestion that the pupils be allowed to copy the colored pictures and write bird stories; also that the children be encouraged to make note of the date of the arrival of the different varieties of birds, during the spring migration. In many instances these suggestions were followed, with the result that in the annual exhibit of school work, the bird booklets were of especial interest.

In June, two public meetings were held, one in each library, the interesting programs being given by the pupils of the different schools and the elder members of the Society.

Through the efforts of our Secretary, Prof. John Cameron, of Kansas City, was secured by the local Chautauqua Association for the presentation of three illustrated lectures on the subjects of Nature and Birds. These lectures were practically interesting and profitable.—MRS. W. B. SMALL, *President.*

Kansas.—It is most singular that Kansas, one of the greatest agricultural states of the Union, with such a vast number of progressive citizens, should be among the last to recognize bird life as one of its chief assets. This territory is a portion of the great inland highway for bird migration to the northward in the spring and southward in the autumn, and immense hosts stop here for the summer sojourn.

With some misgivings, an effort was made to combine the protests of bird-lovers and sportsmen against the appalling destruction of birds into a recognizable force. Happily, all doubts were dissipated by a unanimity that justified preliminary action in August to effect a regular Society for the protection of birds. On October 2, 1908, a permanent organization was founded, with a charter membership of forty-five, which may run up to sixty or seventy by the time we are ready to print our by-laws. A charter from the state of Kansas is now in process of completion.

Among the things we hope to accomplish is the amendment of the present state bird laws to conform to the established standards elsewhere, and to provide for the absolute protection of all harmless wild birds and animals.

That there are several species of birds that are destructive to horticultural interests there is no doubt; but we hope to put a stop to the indiscriminate slaughter that is going on simply because a few species are harmful. Recently a man stated to me that he had used 2,400 gun shells during a single season, and I have been told of another that used 6,000 shells, directed against all classes of birds.

Indifference to the crying evil of egg-stealing, skin-stuffing, summer shooting (especially by the youth) and other vandalism against bird life is much more difficult to contend with than the instances quoted above. This state possesses a full quota of bird-lovers, and a strong effort will be made to enlist their influence to make it possible for the feathered friends of the agriculturalist,

the horticulturist and the dweller in the city to come, rear their young and go without molestation.

We have outlined a great work, and the spread of a healthy idea of complete protection to all harmless birds and animals is in the hands of leading representatives of the educational, professional and business life of the state. We therefore expect in the near future to take an advanced position among bird-protecting states of the Union.

To all similar efforts we send greeting.—RICHARD H. SULLIVAN, *President.*

Louisiana.—The Audubon Society of Louisiana chronicles a year of great success. In the early part of the year we prepared two comprehensive measures to be introduced in our State Legislature. One thoroughly covered the protection of game birds, the other provided the creation of a State Commission for the protection of birds, game and fish, with self-sustaining warden service.

With the aid of the National Association of Audubon Societies (which was freely accorded us) these measures were successfully presented to the legislature and subsequently became laws, and from now on, state control of this asset supersedes voluntary associated effort of individuals.

In addition to obtaining these laws we successfully withstood an organized effort on the part of the millinery trade of the whole country to amend our present "non-game" bird law, in order to permit the selling of bird plumage. Possibly this was the most important event in the whole history of bird protection.

Our reservations on the coast continue to give a good account of themselves. Thanks to the warden service maintained by the National Association, our bird-breeding islands to the eastward of the mouth of the Mississippi river gave to the almost depopulated waters of the Gulf upwards of sixty-two thousand Gulls and Terns; while to the westward of the river, a like number were probably raised on islands over which very little warden service obtains for want of funds.

From now on the Audubon Society can drop the undesirable phase of litigation to enforce the bird and game laws and enter the more congenial and true one of effort along educational lines in the public schools.

In conclusion, we desire to call the attention of all Audubon Societies to the misnomers under which our efforts have been carried on. We refer to the designations of 'game' and 'non-game' birds. In our opinion this is highly objectionable and should be superseded by the more comprehensive terms of 'useful' birds, comprising all the insectivorous and some vegetivorous birds. 'Game' birds comprising the wild sea and river Ducks, Geese, etc., and the 'obnoxious' birds, such as Cooper's Hawk, Cowbird, *Passer Domesticus* and others.

Such a nomenclature would bring the bird question right into the domain of the utilitarian and would vitally strengthen the plea for bird preservation.—FRANK M. MILLER, *President.*

Maine.—The interest in bird protection in Maine continues to spread. So far as known, the large colonies of birds on the coast have been unmolested, and no unfavorable breeding conditions have come to notice.

Common Terns returned to the Outer Green Island in considerable numbers, and a few dozens bred successfully. —ARTHUR H. NORTON, *Secretary.*

Maryland.—There is but little new to report this year. The game laws were slightly modified at the last meeting of the legislature.

An encouraging feature, however, has been the desire on the part of individuals in different counties of the state to form local societies in their respective communities. Good laws will be the inevitable fruit of a growth in knowledge of bird life; so educational work, the most important work of all, will continue in Maryland.—MINNA D. STARR, *Secretary.*

Massachusetts.—It is pleasant to be able to report another successful year with a gain of 321 members. Our membership is now 6,870, which includes 2,174 juniors and 123 local secretaries.

Our work has been done along the usual lines. A large number of educational and other Leaflets, warning notices in English and Italian, and copies of the law have been freely distributed. Our four traveling libraries have been used continuously and there has been a good demand for our bird charts, plates and calendars Our three traveling lectures have been used in a number of schools.

We are publishing another calendar this fall, printed in Japan, with six new plates of birds, uniform in style and artistic merit with our calendars for the past three years.

Much interest was taken in legislative matters last winter, and a special effort was made to help the passage of a bill to prohibit spring shooting. Several hundred circular letters were sent out announcing the hearing on the bill and giving the reasons why it should be passed. This bill was referred to the next General Court. Several other bills called for special interest in our part. Among them one to abolish our excellent Fish and Game Commission on the ground of economy, which did not get beyond its first hearing; one to create the office of State Ornithologist, connected with the State Board of Agriculture, which passed; and a hunters' license bill, which also passed, to go into effect January 1, 1909.

Constant war was waged on milliners and hairdressers who tried to use aigrettes, etc. All that were discovered were reported to the state officers, the Fish and Game Commission, and their cases were promptly attended to. The Commission sent out a deputy who did splendid work in a number of cities in the state, bringing the offenders into court when he found the feathers of Herons, Terns, etc., in their stock. They also had postals printed stating the law in regard to the use, or possession of, feathers from birds protected by our state laws, which were sent out by our Society as well as by the Commission.

Besides the regular monthly meetings of the Board of Directors, a conference

of the New England Audubon Societies was held, which was not very well attended, and a successful course of four lectures was given, with Rev. Herbert K. Job, Mr. Ernest Harold Baynes, Mr. Henry Oldys and Mr. William Lyman Underwood as lecturers.—JESSIE E. KIMBALL, *Secretary.*

Michigan.—The Michigan Audubon Society has made a special fight for the preservation of game-birds by protecting the nesting-grounds. The State Game Warden has done better work than his predecessor against whom our Society waged a war. Some of the local deputies have been efficient but generally speaking there has been little improvement in deputies. The Audubonists have joined with the Michigan Association in asking for improvements in game conditions. Mr. Charles Pierce, the game warden, has attended the meetings of the Association and agreed to aid in bringing about the abolishment of spring shooting. This we hope to accomplish in the legislature during the coming winter. The Women's Clubs of the state have started a crusade against bird millinery. They have also helped in bringing Audubon work before the schools. The Audubon Society became a member of the Michigan State Humane Association and has spread the work in this way, that is, by coöperating with the various humane societies.

Our Society has given a number of prizes to schools and clubs. Five local Audubon Societies have been organized during the year and some of them have been quite active. Last winter one man made $1,800 killing English Sparrows in Detroit. In the country districts many Goldfinches, Chickadees and Tree Sparrows were destroyed and a bounty was collected on them as English Sparrows. For this reason we are asking that the bounty law on English Sparrows be repealed. Detroit suffered greatly by the destruction of trees from insects during the spring and summer. This the citizens agree was caused through the killing of the Sparrows. The Audubon Society will insist on experts destroying the Sparrows if it is considered necessary to have them removed. We find that the bounty on Sparrows encourages bad habits in boys.

Mr. Henry Oldys spoke on government work in preserving the birds, before an audience of 800 in Detroit. The secretary has given fifteen lectures, with stereopticon views in various parts of the state. Prof. W. B. Barrows has been helping by correcting the erroneous summary of the state laws published by the Secretary of State. The forces for the protection of animal and birds were never before united in Michigan as they are now and generally improved conditions are looked for.—JEFFERSON BUTLER, *Secretary.*

Mississippi.—For three years after the passage of the A. O. U. Model Law in 1904, Mississippi did nothing to follow up her advantage. But the appointment of Special Agent H. H. Kopman marked the beginning of a new era.

During the summer of 1907, Mr. Kopman gave talks in many parts of the state, in connection with the Farmers' Institutes. He carefully prepared, during

this time, a list of available material; and a charter membership of 239 was enrolled before the widely advertised Audubon Society organization meeting took place. The week of the State Fair was selected as a favorable time for organization; and through the National Association an exhibit was made at the Fair for more than a week. Specimens for this exhibit were also borrowed from the Museum of Tulane University, New Orleans. A register was kept of the visitors to the exhibit, and reply cards soliciting membership were sent to them. This, however, met with little success; and most of the good accomplished was probably through the literature distributed, setting forth the purposes of the proposed organization.

Without going farther into the details of organization than to say that it took place on November 9, in Jackson, we will state briefly the work done.

Reply cards have been sent to selected persons in all parts of the state, and by this and other means the membership has been increased to 302. Circulars for posting have been sent to about seven hundred and fifty Mississippi post-offices, by permission of the Department; this work will be continued. Much publicity has been given the work from its inception by articles of varying nature in the Jackson daily papers, which have been in steady sympathy with us, especially the 'Daily News,' whose city editor is chairman of our Committee on Publicity. And of very great importance is the work now being undertaken of sending out 10,000 circulars to state and county fairs during this fall, setting forth the advantages to the farmer of the Audubon work, of publishing in every paper in the state a regular publicity communication, and of combining in the most intimate way possible publicity and popular education, by means of a series of illustrated lectures by Special Agent Kopman.

A series of articles by Mr. Kopman in the 'Farmers' Union Advocate', in which he replied to attacks made on the proposed warden system, and on the work of the Society in general, did good, it is hoped; they certainly reached many farmers all over the state, and probably assisted in clearing us of suspicion of 'graft.'

Careful and persistent work was done by Mr. Kopman in Jackson, in preventing violation of the laws forbidding the sale of game. One affidavit was made and conviction secured, and we think the local trade was almost stopped. President Hemingway is memorializing the thirteen circuit judges to charge their grand juries in regard to the game laws.

No legislation was secured; but the bill providing for a state warden and license system was favorably reported in House and Senate, and would certainly have passed if adjournment had not prevented. Governor Noel is committed to the cause and would gladly have signed the bill if it had come to him.

The educational outlook is good. Mr. Kopman made addresses to teachers' associations in five counties, and has talked in the schools of a number of important towns and cities. The State Superintendent of Education has given us hearty support and our work has been endorsed in the Mississippi 'School Journal,'

the official organ of State Education. Local chapters have been founded here and there, with a membership of over one hundred school children at Ellisville, and local secretaries at the State University, and the two largest colleges report excellent prospects for the winter. The secretary read at the annual meeting of the State Teachers' Association a paper which was well received, and he has already been engaged to conduct a course in bird study at one of the summer Normal Schools during the summer of 1909.—ANDREW ALLISON, *Secretary.*

Nebraska.—While our Society has had no unusual growth in the year past, we do notice a continued increase in interest in bird life and study. We held the annual field-day with the Nebraska Ornithologists' Union at Childs Point, several miles south of Omaha, it being one of the best regions for observation in the state. At our request the Nebraska Ornithologists' Union have published a field Check-list of common eastern, common western, rare and accidental species reported in the state, some four hundred in all. Bird guides have been put into the traveling libraries sent over the state by the Library Commission. The increase of nature study in our schools results in the delight possible from an acquaintance with birds, and makes them more and more appreciated. The Public Library in this city will exhibit a collection of our common birds in spring and fall plumage, together with their nests. Had we means to print and circulate more literature, we believe that the children in the state might be incited to join heartily in a movement to give wild birds more and better protection.—JOHN R. TOWNE, *President.*

New Hampshire.—The work of the New Hampshire Audubon Society during the past year has been chiefly educative. We have continued to circulate literature, and have concentrated our attention on schools in the remoter rural districts, supplying them with bird charts, pictures and books.

In order to increase the circulation of the book 'Useful Birds and Their Protection,' by Edward Howe Forbush, we have sent printed circulars describing and recommending the book to the 300 librarians of New Hampshire.

Arrangements have been made to insert in the leading newspaper of the state Mr. Forbush's semi-monthly articles on bird protection and the work of the Audubon Societies. At our annual meeting Mr. Forbush gave his lecture, 'What Birds Do for Man, and What Man Should Do for Birds.'

Mr. Abbott H. Thayer has written an 'Appeal to Sportsmen' in behalf of the Ruffed Grouse, urging a five-year close period, and the Society has taken measures to have this appeal published in the leading papers of the state.

Through the solicitation of the Society, the lecture 'The Ministry of Birds,' by Dr. W. R. Lord, was included in the course given by the Manchester Institute of Arts and Sciences.

The good news has come to us from the Fish and Game Commissioners that there is already evidence that the law passed at the last session of the legis-

lature, giving a five-year close season on Wood Duck and Upland Plover, has resulted in an increase of numbers of those species.—MRS. F. W. BATCHELDER, *Secretary*.

New Jersey.—It is very evident that there is no falling off in *bird interest* in this state, if we can judge by the number of persons who are learning to identify them, and by the books advertised and sold. Interest in all outdoor sports and in nature study has increased, and bird study comes in for its share. The majority of persons, however, feel that they can pursue this study by themselves, and the need of joining a Society or helping in the prosecution of offenders does not present itself to them.

The chief work done by the New Jersey Society during the past year has been the sending out of several thousand circular letters on the occasion of the spring shooting bill which was introduced into the Senate last spring. A bill was also introduced relating to the selling of game-birds within the state of New Jersey. An effort was made to introduce to the teachers of the public schools the Audubon Leaflets on bird-boxes, with illustrated examples which would appeal to children and enable them to construct these little boxes and bird-houses for themselves. Although no reply came from the hundred or more school principals to whom these Leaflets were furnished, it is hoped that an impulse was given in the right direction, and probably a similar attempt will be made during the coming winter. JULIA S. SCRIBNER, *Secretary*.

New Jersey.—The La Rue Holmes Nature Lovers' League, organized two years ago, at Summit, New Jersey, for the further protection of the flora and fauna of this country, is a progressive movement accomplishing much in the formation of human character through its precepts of self-sacrifice, as well as in the protection of nature's riches in the locality where it chiefly obtains.

Composed of thirty chapters, chiefly in schools, both public and private, it is usually accepted as a united school movement, all pupils being members, the entire membership numbering about three thousand.

As a means of increasing sentiment in behalf of protection of forests, native plants and animal life, ninety lectures have recently been given, twenty-five of which were by Mr. Beecher S. Bowdish, of the Audubon Society. About 20,000 pictures of birds and 10,500 Leaflets have been distributed during the last ten months in this interest. Of the hundreds of essays written by pupils, based on information received from such sources chiefly, eighty-three of those submitted to the League Essay Committee have been printed in various periodicals.

About two hundred and sixty petitions were sent out through the interest of League chapters and 500 circular letters of the Audubon Society distributed, when the New Jersey Legislature was in session, in behalf of bills affording absolute protection to the game birds of the state.

Over five hundred folders of the American Forestry Association were dis-

tributed during the last session of Congress, among the clergy and other prominent members of Society, in behalf of the Appalachian and White Mountain bill, for the preservation of our forests.

In the interests of industry and nature study, packages of garden seeds were distributed among all pupils of six of the League Chapters.

A present League interest is the completion of the fund to be appropriated to the purchase of a bird refuge on the New Jersey coast. But a while ago, thousands of Gull wings swept in untold beauty on errands of usefulness over New Jersey's shores; today, through woman's demand for their plumage, a few hundreds linger around the old nesting-place, and these only through the vigilance of the Audubon Society, whose wardens act as guards. The La Rue Holmes Nature League is seeking the means necessary to make this breeding-ground the possession of the Gulls, and other shore birds, for all the future.—GEORGIANA K. HOLMES, *General Secretary.*

New York.—Governor Hughes' suggestion that the entire bird and game laws should be revised resulted in the adoption of the Cobb-Mills Bills. Mr. Dutcher urged several amendments to these bills, and was successful in securing "no open season at any time for the Wood Duck;" also a month's additional protection on Long Island for shore-birds. Other legislative action favorable to birds' protection was the increase of the non-resident and alien hunters' license to twenty dollars; resident license, one dollar.

The amendments recommended by Mr. Dutcher which failed to pass were: To prevent possession of wild-fowl sixty days after beginning of the close season; to prohibit killing of Brant from January 1, to May 1; to secure protection for the Snowy Owl, the useful Hawks, and the Crow Blackbird; to prohibit the sale of the plumage of wild birds wheresoever killed. A vigorous effort will be made made to secure the passage of these amendments the coming session of the Legislature.

At the annual meeting of the Society, which was held on March 19, 1908, Prof. Henry Fairfield Osborn was elected President.

The new certificate, in colors, is now ready for distribution. The present membership is 9,403.

The routine of the work of the New York Society has been the same as in the past, and until the movement takes firmer hold upon the public conscience and larger contributions are received, and more clerical aid secured, no great change is to be expected.

In Buffalo, a Society is being organized to increase the interest in Audubon work in that city. This will be an important factor in the development of bird protection in the western portion of the state.

A year ago, an enthusiastic local secretary moved to Binghamton and reported great need of the work there. Last spring she wrote that "interest is on the increase," and now she asks for "double the amount of literature sent last year,

as there is great demand for it." This is only typical of the growth of the work, were the Society able to be more liberal in supplying the demands created by these past twelve years of effort. Another local secretary writes: "I find the people in the country and small towns are just waiting to have this work broached to them, to go into it heart and soul." Thus, the ever-present problem of how to increase the income of the Society is now more than ever urgent. The Society is now doing a tithe of the work which might be done were more funds at its command.—EMMA H. LOCKWOOD, *Secretary.*

North Carolina.—In certain respects, the work in North Carolina for the past year has been on a decidedly larger scale than theretofore. The Secretary of the Society, assisted by Miss Mary T. Moore, the School Secretary, has given a large number of lectures and bird talks throughout the state, principally to gatherings of teachers and farmers. Five thousand copies of the game laws, besides many thousands of leaflets and cloth posters, have been distributed, and numbers of articles for the public press have been prepared and sent out.

During the year seventy-nine game wardens were employed, a larger number than any previous year. As a result of their activities, the Society brought 274 prosecutions in the State Courts for violations of the bird and game protective laws. In 245 of these cases the defendants were convicted and fined. The majority of these convictions were for infringements of laws protecting game birds or animals, but twenty-five cases were for killing Robins, and nineteen cases were for killing non-game birds such as Mockingbirds, Nighthawks, Cuckoos, Herons and Bluebirds.

During the year we purchased an additional launch, 'The Dovekie,' which has since been doing patrol work in Currituck Sound. Our legislature was called in special session during the month of January, and several local game laws of a restrictive nature were passed. Some of these bills were drafted by the secretary of the Audubon Society.

In connection with the State Geological Survey, we are preparing to publish an illustrative work on the birds of North Carolina, at a contemplated expenditure of about five thousand dollars. This work will be sent gratis to over two thousand Public School Libraries in the state.

We received $8,776.12 from the state, our total income amounting to $13,-115.33; and our expenditures were $13,275.26, leaving an overdraft of $159.93. —T. GILBERT PEARSON, *Secretary.*

North Dakota.—The work of the North Dakota Audubon Society for the year ending October 30, 1908, has been for the most part along the line of creating public sentiment in favor of the protection of bird life. A series of well-attended free lectures was given during the winter months under the auspices of the Society. In December, Mr. Enos A. Mills, lecturer for the United States Forestry Bureau, spoke to three large audiences of the value of trees and birds,

creating much favorable comment. The subjects treated later in the series were 'Uncommon Birds of Stump Lake,' 'Faunal Areas of North Dakota,' 'Familiar Bird Families and How to Know Them' and 'How to Attract the Birds to Our Houses.' As the Hawks and Owls arrived in the spring of 1908, carefully prepared articles on local species with special reference to their value as pest destroyers were published in local papers. During the summer of 1908, a local Society was organized, through the efforts of Mrs. William Falger, at Devil's Lake.

At the annual meeting held October 30, 1907, Dr. R. T. Young was made president and Mrs. A. G. Leonard, secretary and treasurer.—MRS. A. G. LEONARD, *Secretary.*

Ohio.—The past year has been marked by increased enthusiasm among the members, and consequently greater personal effort on the part of various individuals to keep the work of the Society before the public, as well as to refresh their own lives by 'listening to stars and to birds, to babes and to sages with open heart.'

Apropos of babes: We have begun to organize bird clubs in the various public schools and in even some of the exclusive private institutions, and, whereas we started out with the modest hope of interesting only a few children in the several districts, the result more than justified our efforts. At present there are over six hundred and twenty-five children the proud possessors of an Audubon button, many provided with guides, and we believe that, if we can keep in close touch with these children for four or five years, the protection and appreciation of birds will be well assured.

The movement is still in the experimental stage. Last year's series of illustrated lectures drew such large attendences that Mr. Hodges, Librarian of the Public Library of Cincinnati, offered us the free use of all the Branch Libraries. We therefore hope to properly organize and systematize the work for the coming year.

The work of the Society in prosecuting milliners for the sale of birds and aigrettes attracted a great deal of attention. And while, for the most part, we dislike the aggressive method, we found that the 'notoriety' did much to awaken public sentiment, even if it did not decrease the sale of aigrettes. At present, Mr. Speaks, the Chief Warden of Columbus, Ohio, has agreed to defend the case *vs.* the appeal of one of the milliners, in his attempt to test the law. If the law can be found wanting, we shall need to remodel it; otherwise there ought to be more attempts made to enforce it.

The Program Committee provided a series of interesting speakers for our regular meetings, and these were much enjoyed. Usually, the topic of the afternoon lead into general discussion and debate, which was not the least enjoyable part of the program.

There has been much correspondence with persons throughout the state about organizing branch societies, and many leaflets have been distributed.

The Bounty Bill for Hawks and Owls was defeated, thanks to the prompt efforts put forth to crush it.

More than the usual number of requests for speakers from our Society have been called for by other organizations, and these have done much to stimulate in others a keener appreciation of the beauties of nature. Mr. Wm. Hubbell Fisher, the President of our Society, lead them all in point of number, having given of his valuable time to lecture or talk on trees and birds before a half dozen different assemblages.

Last, but by no means least, our field meetings have been a grand success. Every week saw parties of bird-lovers, armed with cameras, guide-books and glasses, start out on these delightful excursions. Whatever effort was required to make it possible for some of us to attend was more than repaid by the number of species noted, and by the sweet serenity of spring.

It was, for some of us, our first formal introduction to nature, and we hope sincerely to be able to make her further acquaintance. The success of these meetings was largely due to the patience and ability to impart knowledge on the part of our two guides—Mrs. Hermine Hansen, as botanist and zoölogist, and Mr. Wm. Cramer, as ornithologist. That the coming year may be as full of endeavor and accomplishment, is our earnest wish.—M. KATHERINE RATTERMANN, *Secretary.*

Oklahoma.—Outside of the distribution of bird literature, there was little accomplished by our State Society, except the work before the state legislature. We are in need of more and better organization throughout our new state.—ALMA CARSON, *Secretary.*

Oregon.—Our Society has been active during the past year in distributing educational leaflets to farmers, fruit-growers, teachers and ladies of fashion. We expect to pursue the same course during the coming winter.

The boys of the Manual Training School, under the patronage of our Society, made a success with their bird-nesting-box exhibit. We have made arrangements with the director of the school to follow this still further in the winter's work. The second of the series of bird leaflets, written by Mr. Finley, and published under the authority of the University of Oregon, was issued during the year; it deals with the economic value of the birds common about our state. This, with the first leaflet, we have used to much advantage in our educational work.

At a meeting of the Oregon Fish and Game Association, last spring, it was proposed to submit a bill to the next legisiature, extending the spring shooting of Ducks up to March 1. The Audubon Society passed resolutions against this step, and will make a determined fight if such a bill is introduced. We have secured the support of the best class of sportsmen against extending the season; public sentiment seems opposed to the spring shooting of wild fowl.

An active campaign for life members in this Society was undertaken during the spring. Twelve were secured at the payment of twenty-five dollars each. Four hundred dollars was subscribed by our Society for Messrs. Bohlman and Finley to make a trip into Southeastern Oregon in quest of bird knowledge.

The report of these gentlemen upon this trip resulted in the establishment of Klamath and Malheur Lake Reservations, thus placing Oregon as one of the best-equipped states in the Union for the protection of wild birds.

A year ago, Three Arch Rocks Reservation was set aside by President Roosevelt. The sea-birds have been well protected under Warden Phelps, of the last-mentioned reservation.

Klamath and Malheur Lakes are the greatest breeding and feeding grounds on the Pacific Coast for various kinds of water-fowl, notably the Grebe. Plans are under way to have these birds guarded and protected. Klamath and Malheur Reservations are large,—they require active wardens fearless in the work; to get these, money is necessary. Reservations without wardens are of little effect. This problem is urgently before us.—EMMA J. WELTY, *Corresponding Secretary.*

Pennsylvania.—The Society had a most excellent start given to its enthusiasm for bird study in the beginning of the winter by the meeting of the American Ornithologists' Union, in Philadelphia, in December 1907. The Audubon members who availed themselves of the open session of the Union heard some most interesting papers, and had opportunities of meeting a number of well-known ornithologists.

The Society was also fortunate in having a lecture given by Mr. Kearton of England, which was most interesting.

A large number of leaflets have been distributed during the year, and able assistance in this work has been given by different Children's societies, such as 'Mercy Bands,' etc.

The traveling libraries of the Society have had new books added to them,—'Gray Lady' and 'The Sport of Bird Study,'—both very popular with the children, and the libraries (which are under Miss Hilda Justice's management) have been sent to different applicants through the state, as usual.

The regular course of lectures at the Academy of Natural Sciences on 'Our Common Birds' by Mr. Witmer Stone, president of the Pennsylvania Society, had a very large attendance this year.

A most interesting feature during the past year has been the gradual increase of requests for 'something to read about birds,' as well as the demand for 'colored pictures' on all occasions.

The secretary finds that a list of good bird books with a brief outline of the contents of each book, the cost and where they may be obtained, is a welcome addition to the leaflets to many of the country applicants for bird information.

Mr. Forbush's valuable book, 'Useful Birds and Their Protection', has given great help and satisfaction to out-of-town members.

In closing, the secretary begs to thank all the state Societies which have sent their leaflets or local reports to her. It is most helpful to have this interchange of ideas, and the reports of work accomplished have been most suggestive and encouraging to start new lines of work in Pennsylvania.—ELIZABETH WILSON FISHER, *Secretary.*

Rhode Island.—The Audubon Society of Rhode Island reports definite progress this year, notwithstanding the resignation of its efficient secretary, Mrs. Henry T. Grant.

During the year four local secretaries have been appointed, making a total of thirty-one. The entire number of members is 1,988. Two new classes of members have been added: 'Sustaining Members,' with annual fee of five dollars, and 'Junior Members' (under sixteen years) with a fee of ten cents in one payment. Juniors at sixteen are expected to join one of the classes of adult members. These changes are designed to give a more adequate, regular income and a compact working membership.

An effort has been started to introduce bird study into the city schools with favorable results in Providence and East Providence. Six thousand leaflets have been distributed and a number of bird charts. The Society has published a special bulletin of valuable suggestions for bird-study indoors and outdoors at different seasons, entitled 'One Way to Study the Birds,' by Mrs. H. E. Walter. A report has also been issued including full lists of officers and active members with addresses.

One thousand leaflets about feather wearing have been distributed to the Federation of Women's Clubs, and 200 signatures obtained of those willing to give up the use of feathers.

Rhode Island was favored in having Mr. Edward H. Forbush here through the winter. He worked up an interest in bird legislation which resulted in four bills for bird protection being introduced into the Senate. The one for the protection of shore birds from January 1 to August 1 passed both houses and became a law. An appropriation of $1,000 was added to the $300 now available for the work of the bird commissioners of the state.

Both Mr. Forbush and Mr. Frank M. Chapman have given interesting free lectures under the auspices of the Society during the last winter.

Seven traveling bird libraries have been in constant use in rural districts, and a traveling lecture, with excellent stereopticon illustrations, has been enjoyed several times in Rhode Island and in Illinois and Michigan.—ALICE W. WILCOX, *Secretary.*

Texas.—For twelve months, ending October 5, all the activities the Texas secretary could lend, all the time possible to spare from newspaper engagements, have been earnestly dedicated to Audubon work, with fruitful results in arousing interest in the preservation of birds and in promoting the organization of branch

societies, 85 per cent of such societies having been formed in the universities, academies, and public schools.

In the strenuous efforts made during the current year, I desire to express grateful appreciation for encouragement afforded the Texas Audubon Society by Governor Tom Campbell, Attorney-General R. V. Davidson, Turner E. Hubby, Hon. E. W. Kirkpatrick, of McKinney, President of the Texas Farmers Congress; Dr. R. B. Cousins, of Austin; State Superintendent of Public Instruction; Col. R. T. Milner, President of the Agricultural and Mechanical College; Dr. H H. Harrington, former President of the same, now in charge of the state experiment stations; Prof. Wesley Peacock of San Antonio, President of the Peacock Military School; Hon. John A. Porter of Paris, Texas, General Manager of the Paris Transit Company; Hon. George H. Hogan of Ennis, Miss Kate Friend, President of the Waco Federation of Women's Clubs; Dr. H. P. Attwater, Industrial Agent of the Southern Pacific; Hon. W. W. Seley, President of the Waco Business Men's Club; Hon. Homer D. Wade, Secretary of the Stamford Business Men's Club; to the entire press of the state, and to ministers and educators in general.

In lecturing with and without the lantern and slides, covering a territory in Texas equal to three or four of the smaller eastern states, the lectures have been invariably received with kindness and consideration and have been accorded all the attention and assistance we needed. In every case, the Audubon lecturers have been permitted to use large halls, auditoriums and opera-houses, and have been afforded plenty of light, and have had the assistance of intelligent and helpful ladies and gentlemen who lent their skill, energy and high social standing in making the lectures successful; in more than one case, young ladies handling the stereopticon.

As long as the railways were permitted to do so, they gave free transportation, and, that courtesy having been cut off by legislative enactment, the railway officials continue by every means in their power to aid the Audubon work.

The volume of bird life in Texas is on the increase, except Doves, Water-fowl, and Prairie Chickens. Ruthless Dove slaughter broke out the latter part of last August, and has not yet ceased, in spite of vigorous efforts to suppress it. With inadequate revenue to support it, the state warden system has not been fully able to cope with the situation, but has done a great deal toward the suppression of the inveterate butchery directed especially against Doves.

Gun clubs at Houston and Beaumont have been active in protecting both water-fowl and game generally in the regions contiguous to the Gulf of Mexico, while in the northwestern Texas counties land owners, railway men, and state officials have done much for the protection of antelopes, deer, Wild Turkeys and Prairie Chickens.

In all the work accomplished, the Texas Audubon Society proved the most prominent agency in the state in encouraging the preservation of wild life, in fields, forest, and on the plains.

The Texas Audubon Society has gained the respect and admiration of the entire law-abiding population of Texas, and we hope and believe that the next legislature will provide revenues sufficient for the support of a fully effective warden system. With the limited means at their disposal, Col. R. H. Wood, the state warden, and Capt. R. W. Lorence, chief deputy warden, have accomplished wonders, and have demonstrated that with adequate means they would be able to convert Texas into a vast and princely bird and game preserve, the greatest preserve on the planet.—M. B. DAVIS, *Secretary.*

Vermont.—In February, 1908, the Audubon Society of Vermont was reorganized with the following officers: President, Prof. J. W. Votey, University of Vermont, Burlington; secretary, Carlton D. Howe, Essex Junction; treasurer Miss Emma E. Drew, Burlington; first vice-president, Mrs. E. B. Davenport, Brattleboro; second vice-president, Miss Cora I. Tarbox, Essex Junction.

Since reorganization, the secretary has given forty-four bird talks and lectures, thirty-eight before school children in as many different schools, two before Teachers' Conventions, one before a meeting of School Superintendents, one before a Bird Club, and one each before an Epworth League and a Missionary Institute.

Over three thousand Audubon Leaflets have been distributed, chiefly to teachers, in all parts of the state.

The biennial session of the legislature convenes this month. An effort will be made to strengthen the existing bird law by placing certain unprotected birds upon the protected list.

An increased interest in bird study and an increase of sentiment toward bird protection is noticeable among the general public, especially among educators and school children.

There has been an increase in membership in both departments. The Society in Burlington now numbers 500 members.—CARLTON D. HOWE, *Secretary.*

Washington.—I find that the conditions of this state are rapidly changing for better bird protection, and the laws of this state are fairly well observed. I also find that game wardens throughout the principal counties of this state are doing everything in their power to help enforce the laws for the protection of both game- and song-birds.

I have made arrangements with the public schools in Seattle, and will endeavor to do the same in other cities of this state, for the building of nesting-boxes.

The pamphlets you sent me some time ago are being distributed to the several manual-training departments of the public schools throughout this state. I have in this city kindred organizations that are constantly furnishing aid along these lines.

While our state organization is not so strong as I should like to have it, I

am pleased to say it has done wonders. Since this organization has been formed, I find that the children, in many instances, are well posted on bird life, habits, etc. Our president, Mr. W. Leon Dawson, is constantly working in the field, both in research and educational lines, and I, as secretary of this Association, look forward to a prosperous year for 1909.—H. RIEF, *Secretary.*

Wisconsin.—The Audubon work in this state, for which the Wisconsin Audubon Society stands responsible, is progressing well. Through the general interest and assistance of the state newspapers, its purpose and labors are becoming widely known, and the number of its loyal friends and co-workers is increasing steadily.

During the past year, hundreds of Audubon Leaflets have been distributed among the public libraries and among educators and others in a position to aid.

Other helpful literature has also been widely circulated. The circulation of 'By-the-Wayside,' the official organ of the Wisconsin and Illinois Societies, so ably edited by Mr. Thomas R. Maybe, secretary of the Children's Department, has also been slightly increased.

The Society's libraries of bird books and stereopticon lectures have been in frequent demand. The State Game Warden's office, with which the Society is acting in full accord, has succeeded in bringing to justice a considerable number of persons guilty of wantonly destroying bird life.

Correspondence has been conducted with Audubon Societies and unattached workers in other states, and the interest in the protection of bird and animal life thus assisted.

In the State Historical Museum, at Madison, a bulletin-board, giving information of the Audubon work, has been erected, and by this means the Society's work is brought to the notice of thousands of visitors.

Teachers' institutes and other gatherings have also been addressed by various members.

The annual meetings of the Society was held at Madison, on the evening of May 29.

Dr. R. H. Dennison was elected president, and Mr. Charles E. Brown secretary and treasurer for the ensuing year. Mrs. Joseph Zastraw and Mrs. R. G. Thwaites were chosen vice-presidents. Mr. Thomas R. Maybe will continue in charge of the Children's Department.—CHARLES E. BROWN, *Secretary.*

LIST OF MEMBERS OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

BENEFACTOR

*Albert Willcox 1906

LIFE MEMBERS

Bancroft, William P. 1906
Barnes, Miss Cora F. 1907
Beebe, Mrs. J. Arthur 1907
Bingham, Miss Harriet 1907
Bowman, Miss Sarah R. 1905
Brewster, William 1905
Bridge, Mrs. Edmund 1907
Brooks, A. L. 1906
Brooks, Everett W. 1907
Brooks, S. 1907
Brooks, Mrs. Shepard 1906
Browning, J. Hull 1905
Carr, Gen. Julien S. 1907
Chapman, Clarence E. 1908
Childs, John Lewis 1905
Clyde, W. P. 1905
Coolidge, T. Jefferson 3rd 1907
Crosby, Maunsell S. 1905
Earle, Carlos Y. Poitevent 1905
Earle, Miss Eleanor Poitevent 1905
Eastman, Geo. 1906
Edgar, Daniel 1908
Emmons, Mrs. R. W., 2nd 1908
Fay, Flora Ward 1905
Foot, Mr. James D. 1907
*Frothingham, Howard P. 1905
Gallatin, F., Jr. 1908
Gazzam, Mrs. Antoinette E. 1908
Gifford, Mrs. Robert L. 1908
Havemeyer, Mrs. H. O. Jr. 1907
Hemenway, Mrs. Augustus 1905
Hoffman, Samuel V. 1907
Hostetter, D. Herbert 1907
Hunnewell, H. S. 1905
Huntington, Archer M. 1905
Jackson, Mrs. James 1908
Kidder, Nathaniel T. 1905
Kilmer, Willis Sharpe 1907
Lawrence, Samuel C. 1905
McConnell, Mrs. S. D. 1908
McGraw, Mrs. Thos. S. 1908
Marshall, Louis 1906
Morton, Miss Mary 1906
North Carolina Audubon Society 1905
Osborne, Mrs. Eliza W. 1906
Palmer, Wm. J. 1906
Pearson, Prof. T. Gilbert 1905
Phillips, Mrs. J. C. 1905
Phillips, John C. 1905
Pickman, Mrs. Dudley L. 1907
Pierrepont, Anna J. 1905
Pierrepont, John J. 1905
Pinchot, Mrs. James W. 1906
Potts, Thos. 1905
Reed, Mrs. Wm. Howell 1905
Sage, Mrs. Russell 1905
Satterlee, Mrs. Herbert L. 1906
Shattuck, Mrs. F. C. 1906
Stokes, Miss Caroline Phelps 1908
Thompson, Mrs. Frederick F. 1908
Tufts, Leonard 1907
Van Name, Willard G. 1905
Vaux, George, Jr. 1905
Webster, F. G. 1905
Wharton, Wm. P. 1907
Woodward, Mrs. Geo. 1908

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Morris, Miss C. W.	5 00
Morris, Robert O.	5 00
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Mott, Jordan L., Jr.	5 00
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Palmer, Edgar	25 00
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Seligman, J.	5	00
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Smith, Mrs. J N.	5	00
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Spooner, Mary T.	5	00
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Sprague, Mrs. Isaac.	5	00
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Stevenson, Miss A. P.	5	00
Stevenson, Miss F.G.	5	00
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Stone, Charles A.	5	00
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Stratton, Chas. E.	5	00
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Thayer, Ezra R.	25	00
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Thayer, J. E., Jr.	5	00
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Thomas, Mrs. L	5	00
Thomas, Mrs. T.	5	00
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Tinkham, Julian R.	10	00
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Tolcott, James	5	00
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Trainer, Chas. W.	5	00
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Tuckerman, Alfred.	5	00
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Tweedy, Edgar	5 00
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Van Orden, Miss Mary L.	5 00
Vermilye, Mrs. W. Gerard	5 00
Victor, Edward W.	5 00
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Wadsworth, Mrs. W. Austin	10 00
Wadsworth, Richard C. W. (In memoriam)	10 00
Waldo, Allan S.	5 00
Waldo, Chas. S.	5 00
Walker, Master O.	5 00
Wallace, Mrs. A. H.	5 00
Walsh, Frank J.	5 00
Walters, Frank	5 00
Ward, Marcus L.	5 00
Ware, Horace E.	5 00
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Warner, Dr. H. S.	5 00
Warren, B. W.	5 00
Warren, Miss C.	25 00
Warren, Mrs. E. W.	5 00
Warren, Samuel D.	5 00
Watson, J. H.	5 00
Watson, Miss J. S.	5 00
Wead, Miss C. E.	5 00
Webb, G. B. M. D.	5 00
Webster, Mrs. E. S.	5 00
Carried forw'd,	$6,760 50

Brought forw'd,	$6,760 50
Webster, Edwin S.	5 00
Webster, L. F.	5 00
Weeks, Andrew G.	5 00
Weeks, W. B. P.	5 00
Wehrhane, Chas.	5 00
Weld, Mrs. C. M.	5 00
Weld, Rev. Geo. F.	5 00
Weld, Stephen M.	5 00
Wells, Oliver J.	5 00
West, Charles C.	5 00
Westfeldt, G. R.	5 00
Weston, Helen	6 00
Wetmore, Edmund	5 00
Wharton, Mrs. E. R.	5 00
Wharton, Wm. P.	500 00
Wheeler, J. D.	5 00
Wheeler, S. H.	5 00
Wheelwright, Miss M. C.	5 00
Whippen, C. I.	1 00
Whipple, Mrs. H. B.	5 00
Whitcover H. W.	6 00
White, Miss A. J.	5 00
White, Chas. T.	5 00
White, Miss E. C.	5 00
White, Horace	5 00
White, Miss H. H.	5 00
White, Dr. J. C.	5 00
White, Mrs. L. E.	5 00
Whiting, Miss G.	15 00
Whiting, Mrs. K. B.	5 00
Whitney, Miss Anne	5 00
Whitney, Milton B.	5 00
Whiton, S. G.	5 00
Whittaker, Wm.	5 00
Widmann, Otto	5 00
Carried forw'd,	$7,438 50

Brought forw'd,	$7,438 50
Wilbour, Miss T.	5 00
Wilcox, T. F.	55 00
Wildman, A. D.	5 00
Willever, J. C.	10 00
Williams, A. H.	5 00
Williams, Blair S.	5 00
Williams, Mrs. F. T.	5 00
Williams, Miss M. E.	5 00
Willis, Mrs. A.	5 00
Wills, Chas. T.	5 00
Wilson, Miss A. E.	5 00
Wilson, Mr. C. H.	5 00
Wilson, C. W.	5 00
Wing, Asa S.	5 00
Winterbotham, J.	5 00
Winson, Mrs. A.	5 00
Winzer, Emil J.	5 00
Wolff, L. S. Mrs.	5 00
Wood, Walter	5 00
Woods, C. M.	5 00
Woodcock, John	5 00
Woods, Edward F.	5 00
Woodman, Miss M.	5 00
Woodward, Lemuel Fox, M.D.	5 00
Woolman, E. W.	5 00
Wray, Charles P.	5 00
Wright, H. W.	5 00
Wright, M. F.	5 00
Wright, Mrs. M. O.	5 00
Wright, Mrs. W.	5 00
Wyatt, W. S.	5 00
Young, T. S.	5 00
Zabriskie, Mrs A. C.	5 00
Zollikoffer, Mrs. O. F.	5 00
Total	$7,663 50

MEMBERSHIP IN THE NATIONAL ASSOCIATION

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

FORM OF BEQUEST

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

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The Report of the Treasurer of the National Association of Audubon Societies

BALANCE SHEET

Exhibit "A" **October 20, 1908**

ASSETS

Cash in Farmers Loan and Trust Company		$7,199 74
Furniture and Fixtures		137 30
Audubon Boats (four)		2,908 46
Investments—		
United States Mortgage and Trust Company Bonds	$3,000 00	
Bonds and Mortgages on Manhattan Real Estate	316,000 00	
		319,000 00
Loan Account—South Carolina Society	200 00	
Louisiana Society	45 00	
		245 00
Deficit for the year ended October 20, 1908, per Exhibit "B"	508 83	
Add—Deficit existing at October 20, 1907	9,008 56	
		9,517 39
Total		$339,007 89

LIABILITIES

Endowment Fund—			
Balance to credit of Fund October 20, 1907		$336,027 00	
Add—Received from Life Members during the year, 13 at $100 each		1,300 00	
Estate of James W. Bartlett	$500		
Less State Tax	25	475 00	
			$338,702 00
Bradley Fund—			
Total contributed to date		1,900 40	
Less amount invested, Taxes, repairs, etc		1,594 51	
			305 89
Total			$339,007 89

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 20, 1908

Exhibit "B"

INCOME—			
Members' Dues		$4,871 00	
Contributions		2,786 50	
Interest from Investments		16,097 19	
Educational Leaflets—Sales		600 82	
			$24,355 51
EXPENSES—			
Warden Service and Reservations—			
Salaries	$2,769 00		
Exploration	377 02		
Launch Expenses	313 56		
		3,459 58	
Expenses carried forward		$3,459 58	24,355 51

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 20, 1908, continued

INCOME, brought forward			$24,355 51
EXPENSES, brought forward		$3,459 58	
Legislation —			
Traveling	$186 20		
Expenses	150 00		
		336 20	
Educational Effort —			
T. G. Pearson, salary and expenses	$2,303 77		
E. H. Forbush, salary and expenses	1,099 89		
H. H. Kopman, salary and expenses	1,368 34		
Miss Moore, salary	360 00		
M. B. Davis, salary	325 00		
W. L. Finley, salary and expenses	1,048 10		
Curran & Mead, Press Information	1,800 00		
Plates and outlines	916 65		
Slides and Drawings	383 24		
Electros and half-tones	213 35		
BIRD-LORE to members	987 76		
Extra pages in BIRD-LORE	629 94		
Printing	645 00		
Newspaper clippings	57 81		
Educational Leaflets	740 65		
Traveling	186 19		
		13,965 69	
Southern Office —			
Expenses		291 96	
Bradley Fund —			
Interest paid on balance		15 00	
State Audubon Societies —			
Texas	$300 18		
New York	106 15		
Missouri	7 93		
Louisiana	6 93		
California	50 00		
Wisconsin	15 00		
Michigan	25 00		
New Jersey	53 35		
South Carolina	34 20		
Washington	30		
Massachusetts	39 75		
Mississippi	393 44		
Prince Edward Island	3 80		
		1,036 03	
General Expenses —			
Office salaries	$2,773 00		
Postage	768 54		
Telegraph and telephone	92 34		
Office and storeroom rent	740 04		
Stenographic work	211 49		
Legal services	25 00		
Envelopes and supplies	274 87		
Express and cartage	67 46		
Commissions	103 75		
Miscellaneous	703 39		
		5,759 88	
Total expenses			24,864 34
Balance—Deficit, see Exhibit "A"			$508 83

LAWRENCE K. GIMSON, CERTIFIED PUBLIC ACCOUNTANT,
82 Wall Street

NEW YORK, October 24, 1908

DOCTORS J. A. ALLEN, AND G. B. GRINNELL,
Auditing Committee,
National Association of Audubon Societies,
141 Broadway, New York City.

Dear Sirs:—In accordance with your instructions, I have made an examination of the books and accounts of the National Association of Audubon Societies for the year ending October 20, 1908, and present herewith the following Ehxibits:—

EXHIBIT "A"—BALANCE SHEET, OCTOBER 20, 1908.

EXHIBIT "B"—INCOME AND EXPENSE ACCOUNT FOR YEAR ENDED OCTOBER 20, 1908.

All disbursements have been verified with properly approved receipted vouchers and paid cheques; investment securities with safe Deposit Company have also been examined and found in order. Yours very truly,

LAWRENCE K. GIMSON,
Certified Public Accountant.
NEW YORK, October 27, 1908

WM. DUTCHER, President,
141 Broadway, City.

Dear Sir:—We have examined the report submitted by Lawrence K. Gimson, Certified Public Accountant, of the accounts of the National Association of Audubon Societies, for the year ending October 20, 1908, which report shows balance sheet October 20, 1908, and income and expense account for the year ending on the same day,

Vouchers and paid checks have been examined in connection with the disbursements, also securities in the Safe Deposit Company.

We find the account correct. Yours truly,

J. A. ALLEN,
GEORGE BIRD GRINNELL,
Auditing Committee.

Officers and Directors of the National Association of Audubon Societies for the Year 1908

OFFICERS

President, William Dutcher, of New York.
First Vice-President, Theo. S. Palmer, M.D., of District of Columbia
Second Vice-President, Dr. Joel A. Allen, of New York.
Secretary, T. Gilbert Pearson, of North Carolina.
Treasurer, Dr. Jonathan Dwight, Jr., of New York.
Attorney, Samuel T. Carter, Jr., of New York.

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EIGHTH CHRISTMAS BIRD CENSUS

VOL. X
No. 1

JANUARY—FEBRUARY, 1908

20c. a Copy
$1 a Year

Bird-Lore

EDITED BY
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES
BY

The Macmillan Company
HARRISBURG, PA.

NEW YORK LONDON

Bird-Lore

January-February, 1908

CONTENTS

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

SPECIAL NOTICE

We take the liberty of sending this number of BIRD-LORE to subscribers whose subscription expired December 1, 1907 in the belief that the matter of renewal has been overlooked.

On renewal, a copy of the Wild Turkey Plate (see next page) will be forwarded.

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FRANK M. CHAPMAN

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NEW YORK LONDON

K. Weber

Bird-Lore

March - April, 1908

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NEW YORK LONDON

F. Weber

Bird-Lore

July - August, 1908

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NEW YORK LONDON

Bird-Lore

September - October, 1908

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On renewal, a copy of the Colored Wild Turkey Plate will be forwarded.

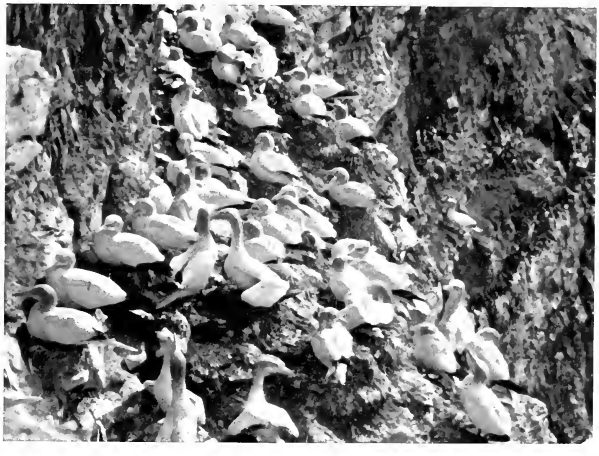
Entered as second-class mail matter in the Post Office at Harrisburg, Pa.

VOL. X
No. 6

NOVEMBER—DECEMBER, 1908

$1 a Year
20c. a Copy

Bird-Lore



EDITED BY
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES
BY

The Macmillan Company

HARRISBURG, PA.

NEW YORK LONDON

K. Weber

Bird-Lore

November - December, 1908

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

Notices of change of address, renewals and subscriptions should be sent to
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TO SUBSCRIBERS:

Subscribers whose subscription expires with this issue will find a renewal blank enclosed in the present number of the magazine. On receipt of your renewal we will send you the photogravure of the Drumming Grouse (see next page) which should be considered due notification of the entry of your subscription. If you desire to discontinue your support of the magazine, will you kindly notify us?

To Members of the National Association of Audubon Societies:

Members and Contributors to the National Association of Audubon Societies are notified that they are entitled to and will receive Bird-Lore free of charge.

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