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THEIR NESTS AND EGGS

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1 9 1 5

With this issue THE OÖLOGIST begins a new year. We begin without promises to furnish either a better or worse OÖLOGIST than we have furnished during the past year. However, it will be the continual aim of the Editor to get out as attractive a magazine as is possible. We believe the present issue of THE OÖLOGIST is one of the best that ever left the press.

One way to better THE OÖLOGIST is to furnish us with an abundance of material from which to select articles for publication. Our copy box is almost empty of articles unaccompanied by illustrations. Of illustrated articles we have an abundant supply on hand. What we are always in want of is short, newsy field notes.

This is a good time for every lover of THE OÖLOGIST to appoint himself a committee of one to extend the subscription list of our little magazine. It has been a pride and a privilege during the past year to have published the first account of the nesting of one of the North American birds accompanied by photographic illustrations, and also to publish the first photograph ever made of an Albino Robin.

We believe THE OÖLOGIST will continue to get better instead of worse, and with this issue we present to our readers the estimate of our little magazine as expressed in many letters received during the past year from representative bird students throughout the world.

It is likewise a good time for each subscriber to look at the number on his envelope and see whether or not a remittance is due THE OÖLOGIST on subscription.

With this issue we publish the first photographs ever taken and published illustrative of the nidification of that rare wild northern bird, the Great Gray Owl, including a likeness of the bird itself. In being the first to display this to the world we of course have a pride, and desire to express our deep appreciation to Mr. Henderson for the opportunity of so doing. If one or more of the more pretentious bird journals would publish more articles of a similar character and less of some other character, we would get more information and facts and less theory.—R. M. BARNES.

Nesting of the Great Gray Owl
In Central Alberta.

(*Scotiapex Nebulosa Nebulosa*.)

Having done very little collecting for a number of years, though always maintaining an interest in the subject, I resolved in the early winter of 1912-1913 to again take up the formation of a scientific collection of the eggs of birds breeding in this locality and accordingly eagerly awaited the opening of the season of 1913. The first find of the season was a good one and occurred as follows:

A friend of mine while out to see some horses which we had wintering at a small lake back in the timber, noticed a large nest with an owl sitting on it and we arranged to go after it the following Sunday, March 23rd. From his description, I was almost certain it was a nest of the Western Horned Owl. Sunday was a regular March day, bright and clear, and hitching a team to a set of light sleighs and putting in our equipment, consisting of climbing irons, camera, a wooden box filled with cotton batting, and a length of stout cord, we drove out to the nest about a mile distant on the Old Klondyke Trail of '98 which here winds through heavy poplar woods on the north bank of the Pembia River. The nest could be seen quite plainly from the trail and was situated in the upright forks of a dead poplar, about fifty feet above the ground. The tree stood on the border of a piece of fire killed poplar and the green timber.

The bird was sitting and did not leave until we rapped on the tree and when she flew I was much surprised and delighted to find it a Great Gray Owl and not the common Horned Owl as I had expected. My friend put on the climbing irons and scaled the tree until he reached a point a few feet above the nest. Having reached this

place of vantage and informing me that the nest contained eggs, he let down his line and raised the camera which I had attached to it. After taking two snapshots from a very awkward position, one of which turned out very well, he lowered the camera and raised the box containing the cotton and the three fresh white eggs were lowered safely to the ground. The measurement of the set are as follows: 2.05x1.73, 2.09x1.74 and 2.09x1.71 inches.

During the time we were engaged getting the snapshots and eggs, the owl remained in the vicinity lighting at distances of about forty to one hundred and fifty yards and occasionally hooting which was answered by the mate further off in the timber. It returned to the nest as soon as we left it. The nest was built of sticks and was apparently an old hawk's nest.

The collecting season now having opened sooner than I expected, I spent a number of pleasant afternoons in the woods and was fortunate in finding a number of Hawk's and Owl's nests but will only treat of the Owl here. I have searched diligently for a nest of the Canada Jay but without success, until April 10th, when I discovered a nest with five young, almost ready to fly.

On March 26th, I discovered a nest with a Great Gray Owl sitting on it, situated in a heavy green poplar woods, about three quarters of a mile southwest of the nest taken on the 23d. We took the nest on March 30th. I may here say that in searching for nests I carried nothing but a good pair of glasses as it was hard work wading through the snow, which was too light and powdery for snowshoes to be much use till later in the spring. Having located a nest we would drive as near to it as possible with a team to carry the outfit. To return to the



Great Grey Owl and Nest, Alberta, Can., March 30, 1913
—Photo by A. D. Henderson

nest taken on the 30th, this contained three incubated eggs. The bird was very loth to leave the nest and remained in the vicinity, returning to the nest as soon as the eggs were taken and I secured a good photo of her sitting beside the nest which was about thirty-five feet up in the upright forks of a green poplar and appeared to be an old hawk's nest. Measurements of the set are as follows: 2.28x1.70, 2.22x1.77 and 2.23x1.72.

On April 1st, I found a large nest in a piece of thick poplars and spruce woods about a mile north of the nest taken on March 23rd, but it appeared to be unoccupied. However, on returning to it on April 6th we were greatly pleased to see the round head and yellow eyes of a Great Gray Owl peering over the edge at us. This nest contained five incubated eggs and appeared to be an old hawk's nest like the others and in the same position, about thirty-five feet up in a green poplar.

On April 26th, I found another Great Gray Owl sitting in a rather flimsy nest near the edge of a poplar woods about four miles southeast of here. I had to rap repeatedly on the tree before she would leave and then she flew away about sixty yards and lit. I went over and discovered the mate sitting in a small poplar which grew through the branches of a small spruce. I walked right under both birds only a few feet beneath them and neither flew, only turned their heads and stared at me as I passed.

On May 1st, I went to the nest again and the bird remained on the nest until it was touched by the hand when she left in such a hurry that she knocked one egg, which it contained, out of the nest and it fell a distance of about thirty-five feet to the ground. Strange to say it did

not break, as it fell on soft ground. This egg was rotten, but I finally managed to make a good specimen of it. It measured 2.06x1.69. There was also a yung owl in the nest.

I have not read of the Great Gray Owl breeding so far south before and I am waiting with interest to see if I will again find them breeding here the coming season.

The Western Horned Owl is also a rather common breeder in this locality, and the full-grown seem to be very partial to this neighborhood of the river, as I have often observed them, usually in pairs, sitting on some over-hanging tree or root along the bank while hunting bear on the Pembina in August.

On March 27th, a friend of mine showed me a nest of the Western Horned Owl in a small spruce standing at the edge of a muskeg. It was about twenty feet from the ground and appeared to be an old squirrel's nest with a few sticks added and bark with a few feathers for lining. It was quite flat and not at all the bulky affair I expected. I secured an excellent photo of this nest and three eggs. This set measured as follows: 2.28x1.82, 2.29x1.82, and 2.25x1.84. They were slightly incubated.

On April 5th, I found another nest of this owl about thirty feet up in the upright forks of a green poplar, situated in thick poplar woods. On climbing to it next day it proved to contain three young, about a week old, so the eggs must have been laid early in March.

On May 11th, I took three eggs of the Long Eared Owl from an old crow's nest, about fifteen feet up in a small spruce, a few yards back from a well-traveled road. The bird was sitting and flew off and joined it's mate about one hundred yards away from the nest. The set measured, 1.52x1.26, 1.52x1.28, and 1.55x1.27.



Nest and Eggs of the Great Grey Owl, Alberta, Can., March 27, 1913
—Photo by A. D. Henderson

This completed my takings of Owls' eggs for the season.

The American Hawk Owl is also a breeder in this vicinity, but I was unable to locate a nest this season. Its peculiar call or whistle, which I suppose is its love note, can be heard the first mild evenings in the early spring and often during the day, usually while he is perched on some stub in or near a muskeg.

It is rather curious that I started to write this article yesterday and today THE OOLOGIST of January 15th arrived, containing the interesting remarks of the editor on the Great Gray Owl's nest taken in Alaska by Lieutenant Eastman.

I have not been able to get much information as to the nesting of this owl from my literature on the subject which I have had access to and it seems my experiences with it have been rather unique.

A. D. Henderson.

Nesting of the Western Horned Owl In Central Alberta.

(*Bubo Virginianus Pallescens*.)

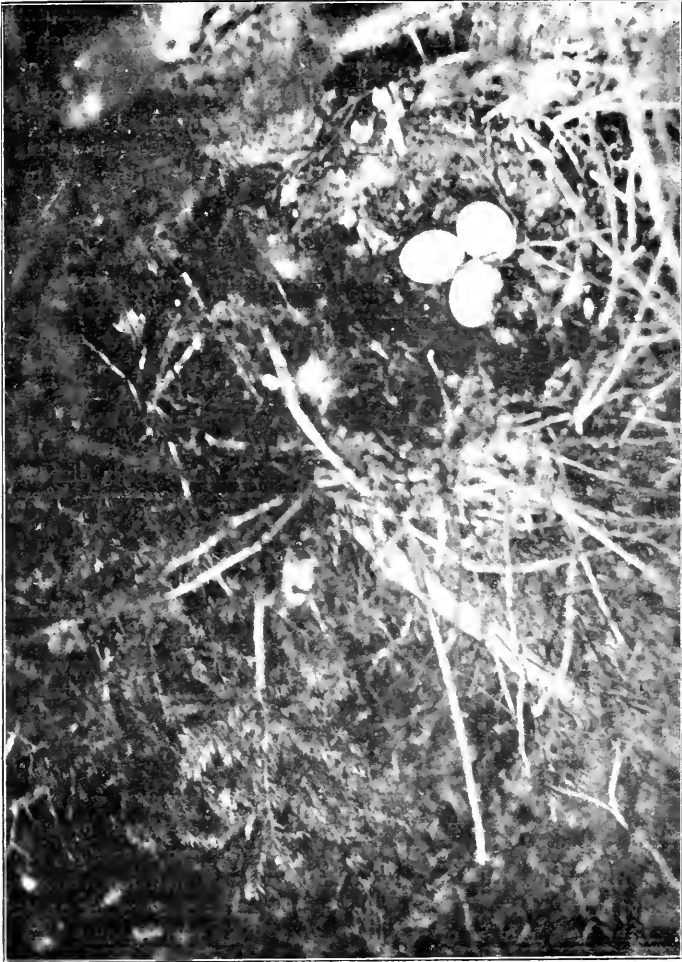
The Western Horned Owl is an old-timer in Manitoba. It was here, with the moose and elk, long before a white man ever arrived here with his gun and rattling machinery, to put discord into the great harmony of Mother Nature. Even now, in this northern part of the province, one feels as if the night were not perfect without the familiar "who, hoo" of this giant raptor. And as rabbits here are so plentiful, that they are almost a pest to the homesteader, the chances of comfortable living for this owl are good for many years to come.

While tramping through the poplar woods late in the fall of 1913, I located several old hawk's nests, that looked to be a "pretty good thing." "If we don't get some Horned Owl's

eggs from some of these nests next March," I said to my mate and neighbor, Mr. John Puspanen, "I am awfully much mistaken."

The largest one of these nests was about two miles west from my home. I decided to visit this one first. Early one morning (16th of March, 1914), I started on my skis across the lake and meadows to this bulky structure, which was at the top of a thick, but short, white poplar. The nest was only about 30 feet up. What a cinch, when compared with some of the trees that one had to climb in Ontario, when hunting for the eggs of the Great Eastern Horned Owl! The tree was about 100 yards from the edge of a large slough. The thermometer registered several degrees below zero and there was fully two feet of snow in the bush. When I got to the edge of the leafless winter woods and headed my skis direct towards the nest, I was certainly very much surprised to see the old owl in the nest, its ears standing on their ends. Half a minute more and she was standing in the nest, looking at the intruder who was coming to disturb her peace. Off she flew, before I was within a gunshot and she kept at a respectable distance all the while I was up at the nest. Her mate soon put in an appearance and more than once they were asking each other in plain English "who" the impertinent intruder could be. When I looked in the nest, I nearly had a fit, so surprised I was, for in place of the common set of two, there laid before me a beautiful set of four white eggs. The incubation had just begun. The average size of the eggs in this set is 2.24x1.85.

Just six weeks later I visited this nest again and took from it a beautiful set of three of the Red-tailed Hawk. This goes to show that the Red-tail was the original owner and builder



Nest and Eggs of the Western Horned Owl, Alberta, Can., March 27, 1913
—Photo by A. D. Henderson

of the nest, and that the Horned Owl was making a winter home of it, while the hawks were spending their winter in the States.

I knew another old hawk's nest in a northeasterly direction from my home, and I was sure of the owls being in possession there also, as I had heard their hooting from that direction every night. So one cold but pleasant morning, Mrs. Norman, Mr. Puspanen and myself headed three pair of skis to a northerly direction from my home. Following an old moose trail through the bush and taking a bee-line across Stony Lake we were soon at our destination. The owls were there of course. The nest was 54 feet up on a dead black poplar. It contained three eggs, incubation started. Average size of the eggs: 2.13x1.81. Date, March 29, 1914. There was still another nest about a mile away from the last named one. We visited it but found it unoccupied.

That night we did not hear the owls hooting; evidently they were mourning their loss. But the following evening the hooting started again, but this time from a new direction, exactly from the direction where the old unoccupied nest was. From that minute I was sure that the owls had moved and that they were getting ready to present me another set of eggs. I left them entirely to themselves, and every night they were giving me some hair-raising hoots, as to assure me of the fact that they were there. On the 19th of April, or just three weeks after we visited their first nest, we took a trip to the new habitat of these owls, and sure enough, there we found them both, the female in the nest and the male sitting at the top of a tall, dead spruce.

The eggs were only two this time; rather smaller than those in the first set of these same birds, averaging 2.16

x1.80. Nest, 45 feet up in a dead, black poplar. Incubation fresh. The female was rather bold this time, thinking perhaps that we were awfully cheeky to come and rob her of her treasures a second time, she flew about us and came so near that John could not resist the temptation, but had to send a bullet through her wing. Her belly was like that of an old broody hen, entirely without feathers. Yet she is mounted and a beautiful specimen she is; after giving us five eggs, she gave us her life in the bargain.

But now I am coming to what appears to me to be the most important point in this episode. When this bird was opened and the intestines examined, the reader may guess my surprise, when I found five more yolks in the oviduct. Two of these were about the size of Sparrow Hawk's eggs and three still smaller ones, like small marbles in size. This discovery leads to this question: How many eggs would the Horned Owl lay in one season, if made to do her best? I am of the opinion that, if this particular bird had not been killed, she would have laid a third set of two eggs in another three weeks' time, as the two largest yolks in the oviduct were almost as large as the yolks in a perfect egg, they were simply minus the white and the shell.

Whether she still would have laid a fourth set of three, or whether she would have considered it too late in the season, I will not venture to say. Now I am asking myself another question: What will become of these immature yolks when the bird's first incubation is not disturbed? Would be pleased to have someone else, with more knowledge in anatomy, give his views on this rather unsettled question.

In conclusion, I may say that the

first nest of this particular pair of owls was also a Red-tail Hawk's nest, as on a later visit to that nest I saw the Red-tails having possession of same. The second nest of the owl's has not been used since.

E. S. Norman.

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**After Owls' Eggs, 1913 and 1914
in Oklahoma.**

(Washington Co., Little Ganey River.)

This spring, 1914, or rather winter, I was determined to get a set of Barred Owl eggs from a pair of owls that made me hunt a strip of woods for two miles up and down the Little Ganey River without result last year, except a suspicion of a snaggy old elm with an impossible looking hole near the top, an Indian said he saw them fly from the tree while cutting wood near it. While looking for them, I located a Great Horned Owl's nest on the decayed top of a giant elm; how to climb it was a problem, but I did it only to find three young ones looking me in the face. Well there would be another year and I would come in time. There only protection was some bark which extended above the nest level on one side of the tree. In the nest with them was the hind parts of three full grown rabbits.

I watched the woods all summer and this season, February 22nd found me making my way to the old owl tree, but someone had burned it down. So after waiting all year, I had to make a new hunt. I thought of every likely tree, but failed to find them. The next day I looked through the woods on the other side of the river and climbed and rapped every tree that looked owly, but to no avail. One old leaning elm had a likely hole away up, but it looked impossible; so after looking the tree over closely, what did I see but the tail of an Owl sticking over the top of a lower limb near the

trunk of the tree. A few sticks thrown at her brought Mrs. Owl off. I was in hopes it was a Barred one, but it was a Great Horned. With rope and climbers, I finally reached the nest. On the lower side of the tree fresh eggs were in it. They were laid on the decayed wood in a cavity on top of the limb. I then went up the river to the Barred Owl tree and with much labor made the ascent, but I was too early. Two subsequent trips had a like ending; one on a cold rainy day. But the next time Mrs. Owl failed to rouse with my hammerings, so up I went, feeling my time had come, when about half way up, she flew out, and on my reaching the hole, three eggs greeted my sight. The hole was on the lower side of a dead limb and I had to put a rope around a limb above and with one foot in the rope hanging to the tree, with one hand I proceeded to dip the eggs out. The first one fell out of my dipper back into the nest, about three feet. Gloom filled the air about that time, but it did not hit the others. With extra care, I fished them all out. One was pretty well cracked, but it looked good to me and I felt well repaid for my trouble; so ended a successful search.

Albert J. Kirn.

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Rare Finds

J. D. Ball of Waterford, Pennsylvania, reports a set of seven Field Sparrows, taken June 3, 1909, at Forrestale, Philadelphia, six of which were fresh and one addled.

Also a set of four Speckled Robin's eggs, collected at Frankford, Philadelphia in 1880.

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The Barred Owl.
(*Syrnium Varium*.)

This large round-headed fellow with big black staring eyes is the most common owl found in this region.

It is a resident the year round. Not often seen in winter when the trees are bare of leaves and the ground covered with snow, as it then keeps well hidden in dense hemlocks, but during the summer time I often come upon them.

They have a liking for cool mountain streams in deep shady woods and often flushed from along the water in such places.

Usually the Barred Owl is not very shy and will allow a person to approach within shotgun range.

A good many are shot each fall during the gunning season, but still there seems to be about as many now as fifteen years ago.

From my experience with this owl when hunting black squirrels, I believe it is a good squirrel hunter, too, and that it is out very often during midday looking for a meal.

In the March OOLOGIST I related a little adventure with one while squirrel hunting last fall and several years ago a similar incident happened. A black squirrel was barking, and sneaking up I saw him on a big chestnut stub and had just got nicely in range, when a big gray object dashed into the tree. Blacky ducked into a hole none too soon, and the gray thing alighted on a limb and turned out to be a Barred Owl. My strangest experience with this owl happened a few years since on a warm lazy October day.

I had crawled out of bed at three-thirty and walked six or eight miles so as to be in the woods at daylight. Along about noon it was so quiet and warm that I got sleepy, so coming to a little sink where I would be out of sight of any fool hunters, I laid down and was soon dozing. Beside me lay my string of squirrels, black and gray, ten in all.

I don't know how long I slept, but

suddenly awakening I saw, not ten feet over my head, a Barred Owl fluttering in the air, no doubt attracted by the squirrels.

When first I opened my eyes he was so close that he seemed to fill the whole atmosphere and for an instant I thought the old boy himself was after me. I started up and he flew away to a limb, faced about and after rubbing hard he hurried away through the woods. I didn't shoot and I often smile to myself when I think what a scare he gave me when I first opened my eyes.

The Barred Owl hoots very frequently during the daytime if it is cloudy or rainy. The hoots are not deep in tone like the Horned and are about eight in number, given in rapid succession and the last one rather long drawn out. At a distance it sounds a great deal like a dog barking. They prey usually on squirrels and small rodents, with an occasional rabbit. Never knew of one of them robbing a hen roost like the Horned Owls, although they sometimes do so.

They nest in natural cavities in large trees. Usually not over thirty or forty feet up, and in hollows or openings that do not go in very deep. Sometimes they nest in the tops of broken off stubs and are exposed to the weather.

Here they lay two or three eggs, and about March 25th is the right time to look for fresh eggs.

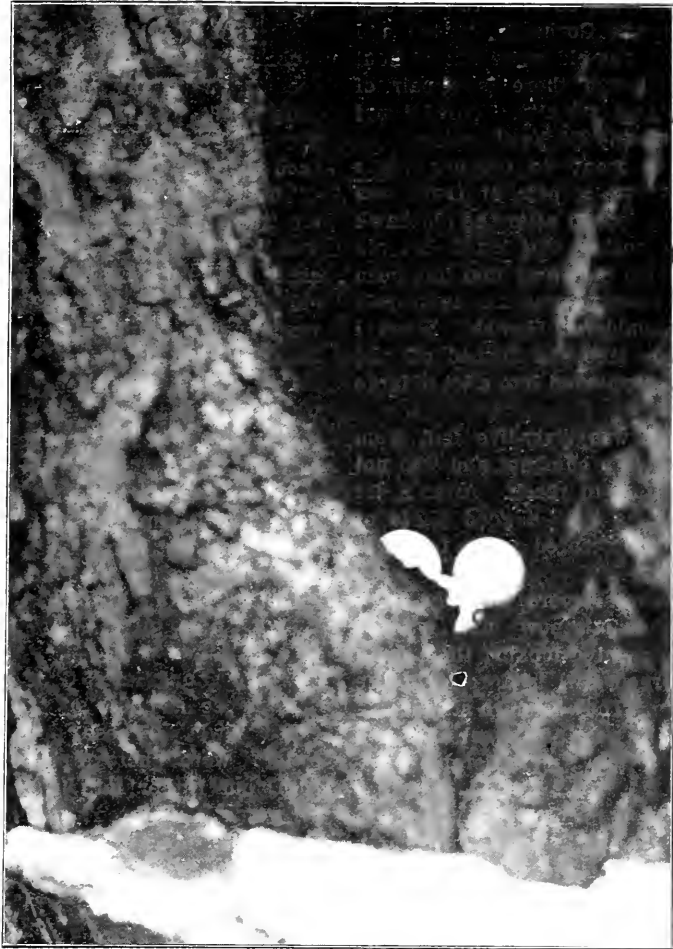
R. B. Simpson.

The Great Horned Owl.

(*Bubo Virginianus*.)

Early on the morning of March 3rd, my friend Spencer and I started to walk armed with climbers, rope and camera, our object being to visit eight or ten old hawk's nests in hopes of finding Mrs. Bubo at home.

As I left the house the thermometer



Nest and Eggs of the Barred Owl
—Photo by R. B. Simpson

stood at zero, but it was clear and turned into a fine day. In the woods we found a heavy deep snow, but it was crusted hard and held up so that walking was fine.

We visited the basin in the big timber where the Goshawks nested and looked over the old nests but without results, although there is a pair of Bubos in that vicinity. We did not see or hear the Goshawk either.

We then went to another place where I knew a pair of Owls was located and looked after the old hawk and crow nests. We found the old lady at home in a nest that has been used for several seasons, by a pair of Red Shouldered Hawks. When I bumped the tree she flopped off and quickly disappeared into a lot of large pines.

The nest was sixty-five feet from the ground in a chestnut and was not a difficult one to reach. After a lot of fussing we got a good photo of the outfit and secured a nice fresh set of two eggs.

I had several more pairs in view, but the deep snow and stormy weather prevented looking them up.

The Horned Owl is a resident the year round. They seem to stay in the same vicinity year after year and each pair ranges over a considerable territory.

They seem to hold their own in numbers here as they have good shelter in the hemlocks and are wary and difficult to get close enough to shoot; in fact, I don't believe we have a bird here that is as difficult to secure as Mr. Bubo.

Crows often mob them and at such times they can sometimes be approached.

They are great destroyers of game, especially rabbits, and during the long winter they kill a great many. They must tackle skunks very often as most

of them that I have handled smelled very skunky and several nests that I have climbed smelled very rich. They are great fellows to raid chicken coops and roosts and once started they keep it up until shot or trapped.

They nest in both hollow trees and stubs and old hawks' nests and don't seem to have any particular choice. They don't use the same nest each season here, but have a different one each time.

The first week in March is the time for fresh eggs here, regardless of the weather, and the young hatch out about the 20th to 25th of March. The old ones are good providers and always have a supply of food ready for the little fellows when hatched.

Last season I climbed to a nest in which the young had just hatched and found a grouse and the best part of a rabbit in the nest.

At a nest that I climbed to several years ago I found young just hatched and in the nest was a large rat, minus its head, also the hind quarters of a rabbit.

R. B. Simpson, Warren, Pa.

Long-Eared Owls.

I inclose a photo of young Long-eared Owls. These queer looking owlets were photographed on June 30th, but rather late in the season, for young long-eared's of this size. I think they are from the third set of eggs from the same pair of birds in one season, which I have every reason to believe.

On April 22nd, I was tramping around in a bunch of woods and found a nest in a maple, twenty-one feet up, in an old crow's nest, and it contained four fresh eggs, and undoubtedly an uncompleted set. I took them. Some days later, which was on May 1st, I happened to be in this same woods, and located a nest in a small pine



Nest and Eggs of the Great Horned Owl
—Photo by R. B. Simpson

quite near the top, which was also in an old crow's nest. It contained four fresh eggs and this tree was about 275 feet distant from the first nest. I took this set.

Thought very likely these birds would nest again, so I made another trip there about May 19th, and on this occasion I found the nest in a maple, twenty-five feet up, and quite near where the first nest was (would say about 150 feet). This time it contained five slightly incubated eggs, but I did not disturb the nest.

On June 23d, a mutual friend, Mr. Charles Pelton, and myself, visited the nest for the main purpose of photographing the young birds. There were five in the nest and no two alike in size. We found it would be rather difficult to get a picture of them in the nest, so did not try to snap them this time. But on the following Sunday, June 30th, we went there again and took the birds down from the nest, set them on an old dead branch of a tree, and snapped a few plates on them. But there were only three and we could not find the other two that were missing; very evidently the two largest ones had left the nest.

J. T. Stierle, Marshfield, Wis.

Set Marks

Marking and blowing eggs is an accomplishment that very few have attained which is termed the highest point of proficiency.

The first example of the kind that has come under my observation, is the work of Mr. Freganza of Salt Lake City. His eggs are marked with great care, blown with small holes and dates, models of neatness and perfection.

We cannot all be Freganzas, but with a little more patience and the proper kind of tools, eggs can be prepared that will be a pleasure and

delight to look upon. Cut-the-lining drills are the proper kind to use. They not only make a clean hole, but make the holes in a set of uniform size. It always looks suspicious to see part of a set marked in one way and the balance in another. If you commence to mark the A.O.U. number on the small end, finish the set in like manner.

The system of using small pieces of paper for the number and set mark by some is perhaps a good plan for small and fragile eggs, but I much prefer to have each egg marked if possible.

Don't bore "auger" holes in eggs and mark them "fresh" on data it indicated carelessness on the person doing it. Large eggs can be blown with as small holes, if fresh.

Everybody likes small holes, not "pin points" exactly, but holes that look small and neat.

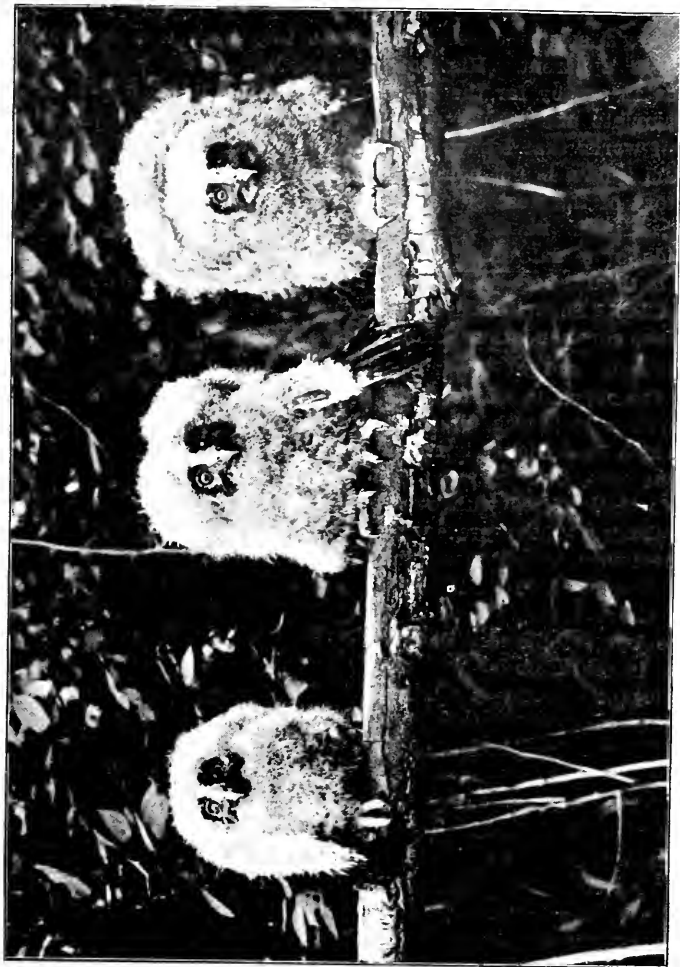
E. J. Darlington, Wilmington, Del.

A Trip to Waynesburg, Pa.

On November 13, 1914, it was my great privilege to go to Waynesburg, Pa., with the express purpose of visiting Sam S. Dickey, whom I had not seen before; but whom I had learned to put confidence in through his letters.

Incidentally, Waynesburg, taken as a whole, is the most pleasant and thoroughly enjoyed town I was ever in, and I was never treated more royally by friends or companions in all my life than by Sam Dickey.

Since I stayed at the home of Prof. Dickey, who is not Sam Dickey's father, but Sam himself, I naturally treat him first. Overlooking a broad expanse of country enchanting to a bird student, is a medium sized, long room, which Mr. Dickey, (or Prof. Dickey) calls the "laboratory." On one end wall hangs an oddity which



Young Long-eared Owls
—Photo by J. F. Stirling

attracts immediate attention. A Bewick Wren's nest—one of Prof. Dickey's favorites, huddles neatly into the cup of an old straw hat, where times before it was doubtless shaded from the sun by the broad brim. Nearby is a bookcase where evidences of Prof. Dickey's scientific research are everywhere apparent. His note books and datas are by far the most thorough, complete and wholly satisfactory set of works that I have ever seen. To him a data is not complete if some history of the nest or egg is not present. He is never satisfied with one side of a data blank, and invariably, I think, both sides are moderately filled. Such thoroughness must have deep commendation I think.

In the opposite end of the room, however, is the object to which every eye turns, who is in search for those things for which Sam Dickey is noted. A magnificent case, built at great expense, stands there, fitted with every modern appliance for the preserving of those specimens which mark the advance in stages of Prof. Dickey's remarkably short career. And now the treasure box is opened. Drawer after drawer is gently pulled out, displaying to elegant advantage, a collection famous, at least which should be famous, for its excellent data, and incomparable preparation. I have seen collections, large and extensive, perhaps even more so than Prof. Dickey's, but never have I seen one which so boundlessly excelled in preparation. The holes are exceedingly minute, even in the largest eggs, and show unlimited care and precaution on the part of the collector. His immense collection of Warbler's eggs is quite unique to my knowledge. But to him, his prize eggs are such rare sets as Pileated Woodpecker, Northern Raven, etc. The value of these sets is many times increased by the collector's unstinted data on the species.

His nests, which accompany the sets are also very exceptoinally preserved, and are invariably adjuncts to his eggs. On the whole, any amount of praise could not express my sentiment of his collection. It completely changed me—and so do others say when once they have witnessed his eggs.

I had great pleasure also in meeting Mr. James Carter, who has been the companion of Prof. Dickey since they were very small. Oddly enough there is but two months' difference in their ages.

His collection is permeated by the same atmosphere as Prof. Dickey's—that of good preparation. Though his collection is not as extensive in native Pennsylvania birds as Prof. Dickey's. Yet it shows great enthusiasm, and care on the part of the collector. He is justly proud of a set of Killdeer, collected at Waynesburg, which is a very rare breeder there, as well as the egg of a Bachmann's Sparrow, which is the only known record for that species breeding in Pennsylvania to my knowledge. He had rather ill luck with this set as one is apt to have, when dealing with very rare birds. James Carter is one of tomorrow's bird men, and Prof. Dickey and I desire frankly to introduce him as one, with whose articles the bird magazines will soon be filled.

Lastly, I visited the very extensive collection of Mr. Warren Jacobs, whose group of abnormal eggs is quite famous. A great number of his eggs are in open show cases, which though they display the eggs to great advantage, I should think wiser to be placed away from the light. So valuable a collection is scarcely worthy for the vile day light. His collection abounds in rare sets, such as Duck Hawk, and other eggs of much value. His two Passenger Pigeon eggs were unfortunately broken while on exhibition.



Nest, Two Eggs and Two Young of the Long Eared Owl
—Photo by Thos. S. Jackson

Some of his eggeries are very beautiful as well as extensive—especially those of the Osprey, Bald Eagle and Alpamado Falcon. The most interesting part to me though, were the native Pennsylvania eggs.

A delightful walk was taken to a Pileated Woodpecker's nest, where, in a great tree, I viewed a startlingly large entrance where doubtless the magnificent birds would have nested, were it not for the lumbermen disturbing them. I visited the class which Prof. Dickey has—an interesting set of twenty-five boys and girls, who, under the able guidance of their teacher are now astonishingly interested in their Avian neighbors.

On the whole, Waynesburg could better be called Eggsburg, or some such name, the place is so thoroughly alive with bird people, and birds themselves.

George Miksch Suttard.

Least Tern.

A friend of mine discovered a colony of Least Terns breeding at Pacific Beach, San Diego, June 29th, 1913, and told me about them, so the 6th of July I rode my bicycle out there, a distance of about twelve miles, arriving there about nine o'clock in the morning. I found a colony of about one thousand pairs of birds breeding all the way from Pacific Beach down to False Bay, a distance of about three miles. Back of the beach lie the Sand Hills. Some were nesting on the beach back of the highwater mark in little groups of ten or twelve pairs, while others were nesting among the sand hills in places like miniature deserts surrounded by sand dunes. There were two pairs of Snow Plovers in this place with nests containing two and three eggs respectively. The two being fresh while the three were well along. This I consider late for Plover.

The largest colony were nesting at the entrance to False Bay on a wide stretch of beach. About five hundred birds were breeding here. The air was just full of them when disturbed, screaming and flying over head. My shirt was whitewashed from the droppings when I was ready to go home. They were continually carrying in small sardines to their young; this place being an ideal nesting sight on account of its close proximity to False Bay, which is very shallow, a fine place for food. The nest contained from one to two eggs in all stages of incubation. Of about three hundred nests looked at, I didn't see any sets of three eggs; while there were a good many nests containing three young birds, which are very handsome little fellows. I regretted very much not having a camera to take some photos. The night of the 4th was an exceedingly high tide, which washed out lots of the nests here, washing the eggs and young which were near the surf back higher on the beach, destroying lots of nests which are mere depressions scratched cut by the birds, some having a few strands of sea weed in them, others nothing. There is a great variation in the immaculation of the sets.

E. E. Sechrist.

Black and White Warblers.

One hot dusty day in June I found myself cultivating corn with my team of favorites. Along towards noon I became thirsty, so I tied up to the fence near where the field cornered against some heavy timber; I climbed over the fence, (may the devil get the person who invented barbed wire), just as I landed, a bird got out, right by my feet and fluttered away among the grass and bushes. I instantly marked the place where she got up and followed her until I made out it

was a Black and White Warbler. I returned to the bushes where she got up and easily found the nest which contained four eggs, far advanced in incubation. I could not save them, although I very much wanted them for my collection; they being the only ones I had ever found. The nest was composed of dead leaves, grass, bark, strips from the inner bark, rootlets, and lined with hair, nicely made, arched over, snugly placed among the stems of a small bunch of hazel bushes. The eggs were white or creamy white, thickly marked with chestnut and lavender in varying shades. I think they hatched without mishap.

George W. H. Vos Burgh.
Columbus, Wis.

VanCouver Island Birds.

I am sending you list of the birds I saw on a five days' hike up Vancouver Island, British Columbia, July 14-19, 1914, as follows, viz:

7	Loon	2
44	Glaucous winged gull	3
51	Herring gull	6
132	Mallard	1
194	Great Blue Heron	1
242	Least Sandpiper	2
294	California quail	2
297a	Sooty Grouse	2
299	Franklin Grouse	6
300	Ruffed Grouse	9
337b	Western Red-tailed Hawk	3
349	Golden Eagle	1
390	Belted Kingfisher	50
393c	Harris Woodpecker	5
394a	Gairdner's Woodpecker	2
413a	North-western Flicker	40
420	Western Nighthawk	10
433	Rufous Hummingbird	2
436	Caliope Hummingbird	4
447	Arkansas Kingbird	1
478	Stellar's Jay	22
478c	Black headed Jay	2
488	Crow	75
498	Red-winged Blackbird	12

501b	Western Meadowlark	1
528	Redpoll	200
540a	Western Vesper Sparrow	2
554a	Gambel's Sparrow	7
554b	Nuttall's Sparrow	25
560a	Western Chipping Sparrow	100
567a	Oregon Junco	200
581	Song Sparrow	1
585	Fox Sparrow	1
585g	Townsend's Sparrow	1
588b	Oregon Towhee	25
607	Western Tanager	2
611	Purple Martin	4
613	Barn Swallow	50
615	Violet Green Swallow	75
652a	Western Yellow Warbler	3
656	Audibon Warbler	1
680	McGillivray's Warbler	6
721a	Parkman's Wren	7
722a	Western Winter Wren	2
735b	Oregon Chickadee	35
741	Chestnut backed Chickadee	30
748	Golden-crowned Kinglet	50
749	Ruby-crowned Kinglet	35
758	Russet backed Thrush	30
761a	Western Robin	30
E. S.	English Sparrow	3

Frank H. Maynard.

Victoria, B. C.

Notes on the Foregoing.

We deem it proper to make the following notations on the foregoing list, viz:

Glaucous winged Gull, Herring Gull, California Quail, Franklin Grouse, Golden Eagle, Western Nighthawk, Caliope Hummer, Arkansas Kingbird, Blackheaded Jay, Redpoll, McGillivray's Warbler, Oregon Chickadee, and Ruby-crowned Kinglet were not observed by the expedition whose ornithological activities were reviewed in "A Report on a collection of Birds and Mammals from Vancouver Island" by Harry S. Swarth, U. of C. Pub. in Zool. Vol. 10, No. 1.

The Great Blue Heron referred to in the foregoing list is without doubt A.

h. fannini, Northwest coast Heron.

The Belted Kingfisher being referred to in the foregoing report of Harry S. Swarth as the Northwestern Belted Kingfisher (Grinnell).

The Western Nighthawk is without doubt the Pacific form, *C. v. hesperis*, and the Crow is *Corvus caurinus*, the Northwest Crow.

The Song Sparrow is, we believe, *N. m. rufina*, Rusty Song Sparrow, and the Fox Sparrow is either *P. i. Fuligevosa*, or *insulais*.

The Purple Martin is *P. s. hesperia*, the Western Purple Martin.

The Barn Swallow being referred to in the foregoing report of Harry S. Swarth as the Western Barn Swallow (Grinnell).

The Violet Green Swallow is *T. t. lepida*, the northern form, and the Western Yellow Warbler, the *D. a. rubiginosa*, the Alaskan form.

The Golden Crowned Kinglet is *R. s. olivaceous*, the western form, and the Western Robin being referred to in the foregoing report of Swarth as the "Northwest Robin" (Grinnell).

Editor.

Birds Seen on a Day's Tramp in Allegheny County, Pa.

1. Horned Grebe, 4.
2. Scaup Duck, 5.
3. Solitary Sandpiper, 1.
4. Spotted Sandpiper, 5.
5. Killdeer, 2.
6. Mourning Dove, 5.
7. Screech Owl, 1.
8. Belted Kingfisher, 5.
9. Hairy Woodpecker, 1.
10. Downy Woodpecker, 1.
11. Yellow-bellied Sandpiper, 2.
12. Red-headed Woodpecker, 2.
13. Flicker, 15.
14. Chimney Swift, 10.
15. Crested Flycatcher, 1.
16. Phoebe, 3.
17. Least Flycatcher, 1.
18. American Crow, 6.
19. Bobolink, 6.
20. Cowbird, 3.
21. Red-winged Blackbird, 10.
22. Meadowlark, 8.
23. Baltimore Oriole, 2.
24. Branzed Grackle, 5.
25. American Goldfinch, 3.
26. Vesper Sparrow, 1.
27. White-throated Sparrow, 15.
28. Chipping Sparrow, 3.
29. Field Sparrow, 10.
30. Slate colored Junco, 3.
31. Song Sparrow, 15.
32. Towhee, 10.
33. Cardinal, 3.
34. Rose-breasted Grosbeak, 8.
35. Barn Swallow, 10.
36. Rough-winged Swallow, 2.
37. Red-eyed Vireo, 1.
38. Yellow-throated Vireo, 4.
39. Black-and-White Warbler, 5.
40. Worm-eating Warbler, 2.
41. Golden-winged Warbler, 3.
42. Nashville Warbler, 3.
43. Yellow Warbler, 8.
44. Myrtle Warbler, 4.
45. Cerulean Warbler, 20.
46. Blackburnian Warbler, 1.
47. Black-throated Green Warbler, 1.
48. Yellow Palm Warbler, 1.
49. Oven-bird, 10.
50. Water Thrush, 1.
51. Louisiana Water Thrush, 1.
52. Maryland Yellowthroat, 1.
53. American Redstart, 8.
54. Catbird, 5.
55. Brown Thrasher, 2.
56. Carolina Wren, 1.
57. House Wren, 3.
58. Brown Creeper, 3.
59. White-breasted Nuthatch, 2.
60. Tufted Titmouse, 1.
61. Chickadee, 1.
62. Ruby-crowned Knight, 1.
63. Blue-gray gnatcatcher, 4.
64. Viery, 2.
65. Wood Thrush, 8.
66. American Robin, 15.

Thos. D. Burleigh.

May 2, 1914.

THE OÖLOGIST.

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The Value of Hawks and Owls

BY S. S. DICKEY

Instructor in Ornithology in Waynesburg College.

Published in Washington Observer

It is generally believed that all hawks and most owls are nuisances to the farmers because of destructive habits and that therefore, they should be killed. This belief has doubtless been encouraged by the laws of many states offering bounties for the heads of the species of this order of birds.

The truth is, as shown by scientific investigation, that most of them are far more useful than harmful and should be protected. Farmers should learn to discriminate and stop killing the useful kinds.

Already great damage has resulted from a lack of knowledge on this subject. The writer has known of bounties being paid for scalps of hawks which are protected by law and for the killing of which fines should have been imposed.

The subject is especially timely now for the reason that these birds remain with us during the winter and, because of the absence of leaves from the trees they are more easily seen and more liable to destruction than during the summer season.

The sharp-shinned hawk, the blue-tailed hawk, and the great horned owl are the varieties found in Southwestern Pennsylvania which are condemned by the game commission and permitted to be killed because they are detrimental to man.

The following is a brief description

of them: The first species, the sharp-shinned hawk, is about the size of a common pigeon. Its tail is comparatively long and the general color of its plumage is slaty-blue above and white beneath. The food of this small hawk consists almost entirely of useful birds and young poultry.

The second species, the blue-tailed hawk, is similar to the preceding species in its general color but is much larger and has a comparatively longer tail. This is the common chicken hawk, so well known among the farmers that a detailed description of it is unnecessary. Its food is mainly composed of insectivorous birds, game birds, and poultry.

The third species, the great horned owl, is commonly known as hoot or booby owl. On account of its conspicuous ear feathers it appears somewhat like a cat, hence it is sometimes known by the name cat owl. This bird is large and powerful and when numerous proves a great pest. It will attack and slay poultry the size of geese or turkeys and has been known to kill several in a single night, eating nothing but the brains and leaving the carcass to rot. At present these large owls are not abundant in this region and of course are not liable to do much damage. The esthetic value of these birds should be considered, however, so that the species will not become entirely extinct as it has in some regions.

There are four species of useful hawks found in Southwestern Pennsylvania. Some of them at times will

take poultry and game birds, but their usefulness is so great that the good work they do far overbalances the harm. The following species are more or less plentiful in this region: Red-tailed hawk, red-shouldered hawk, broad-winged hawk, and sparrow hawk. Two of these, the red-shouldered and broad-winged hawks are less common than the others and will not here be described.

The red-tail is the largest and best known species. It may often be seen sailing gracefully over the fields and woods in search of its favorite prey. Its food consists to a great extent of harmful animals, particularly field mice and groundmoles. Every farmer knows the work of these mammals, and a bird which destroys them should surely receive his protection.

The little slender-winged, long-tailed sparrow hawk is also abundant and is doubtless well known to most farmers. It does no harm and is particularly valuable in destroying mice, moles, harmful insects and great numbers of that pest the English sparrow.

We regret confusion in the numbering of the issues of this volume of THE OOLOGIST, and for the benefit of those who desire to bind their files, present the following. The issues of this magazine and bibliologists' genres and numbers appearing in the magazine as published and those that should have appeared are set forth in the following table, viz:

January 15, 1915, is numbered Volume XXXI, No. 1, Whole No. 318, and is correct.

February 15, 1914, is numbered Volume XXXI, No. 2, Whole No. 319, and is correct.

March 15, 1914, is numbered Volume XXXI, No. 3, Whole No. 320, and is correct.

April 15, 1914, is numbered Volume XXXI No. 4, Whole No. 321, and is correct.

May 15, 1914, is numbered Volume XXXI, No. 5, Whole No. 322, and is correct.

June 15, 1914, is numbered Volume XXXI, No. 323, and is correct.

July 15, 1914, is numbered Volume XXXII, No. 7, Whole No. 324, and should be Volume XXXI, No. 7, Whole No. 324.

August 15, 1914, is numbered Volume XXX, No. 5, Whole No. 328, and should be Volume XXXI, No. 8, Whole No. 325.

September 15, 1914, is numbered Volume XXXII, No. 9, Whole No. 329, and should be Volume XXXI, No. 9, Whole No. 326.

October 15, 1914, is numbered Volume XXXI, No. 10, Whole No. 330, and should be Volume XXXI, No. 10, Whole No. 327.

November 15, 1914, is numbered Volume XXXI, No. 11, Whole No. 331, and should be volume XXXI, No. 11, Whole No. 328.

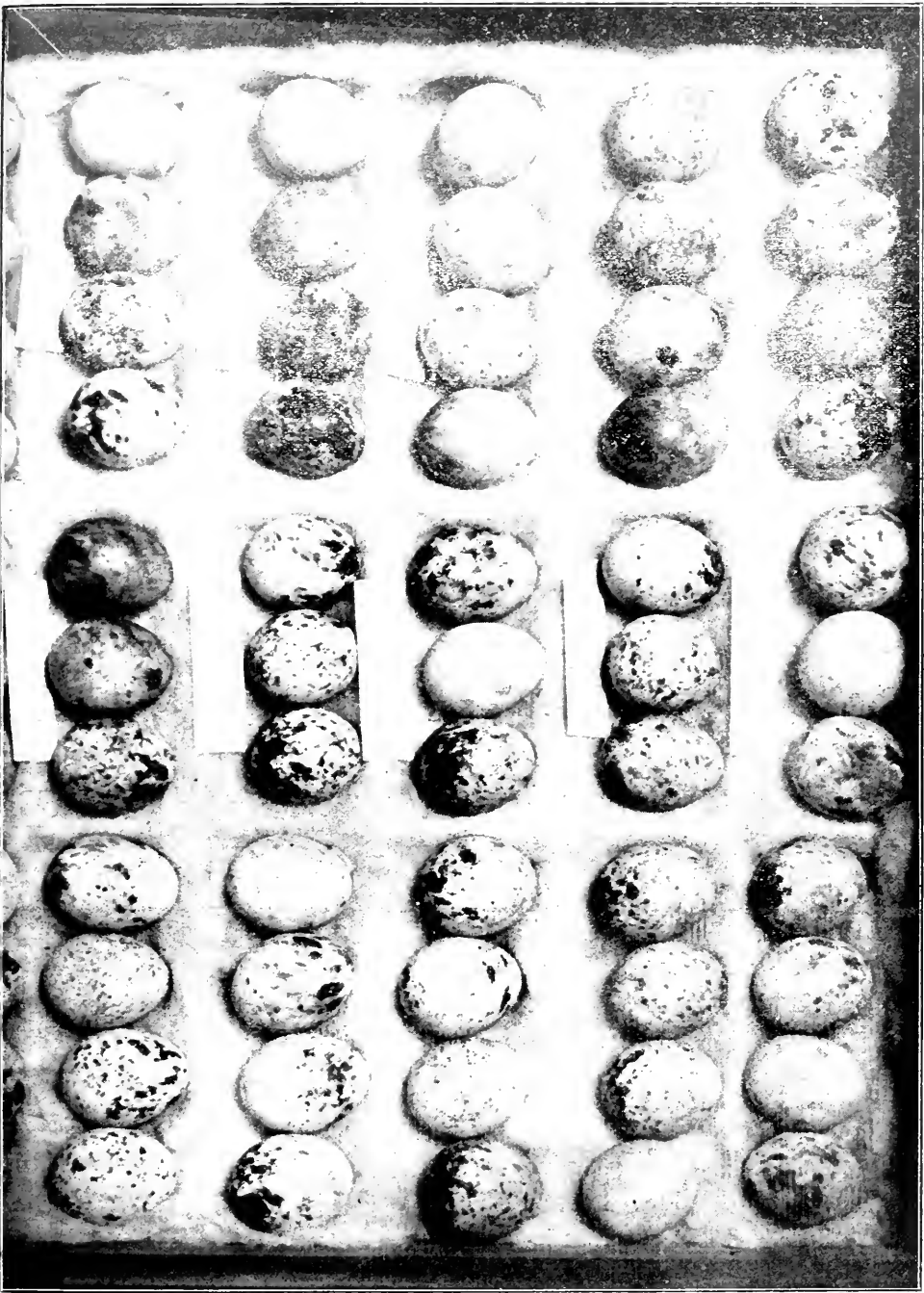
December 15, 1914, is numbered Volume XXXI, No. 12, Whole No. 329, and is correct.

O. C. C. Nicolls, Capt. R. G. A. at St. Georges, Bermuda, wishes his correspondents to note the fact that the postage on a letter to Bermuda is five cents instead of two. That he is under orders to leave there, and unless correspondents see that the proper amount of postage is attached, there will be delay and annoyance in having the mail forwarded.

A Correction.

"Nesting of the Western Horned Owl in Central Alberta" is the heading given to my article in the January issue of THE OOLOGIST. This is wrong as anyone will see by reading few lines of the episode. The heading ought to be "Nesting of the Western Horned Owl in Northern Manitoba."

Ernest S. Norman.
Mulgibill, Manitoba.



Hawks' Eggs.

Having had no opportunity to do any collecting for nearly six months, I welcomed the chance to go out in the woods a few Saturday afternoons as the time drew near for the Red-shouldered Hawks to return here in the early spring.

On April 4, 1914, I found that the Red-shoulders had arrived for I saw three on this date. Two pairs soon settled for the season in a couple of wood-lots, perhaps a mile apart.

After watching one pair carefully for five weeks, on May 9, I collected a full set of three eggs, partly incubated, from their nest in a white pine tree. The nest was about fifty feet from the ground in a fork of the upper branches, and was composed of twigs and bark, lined with soft cedar bark, a few downy feathers, and a few green sprays of red cedar and pitch pine.

The eggs were heavily marked with dark brown, much darker than is usual with eggs of this species found near here. They measured 2.25 x 1.78, 2.26 x 1.83, 2.18 x 1.79. The other pair of hawks gave me a lot of trouble before I finally got their eggs.

I first saw them April 4, in a wood-lot near a thickly settled part of the town, just in the rear of a private sanitarium belonging to Dr. F. E. Park, one of our leading physicians. Fortunately for me the doctor himself happens to be a well known nature student, and he willingly gave me permission to go over the Sanitarium grounds and take both the eggs and the hawks themselves if I wished to.

April 11 I saw one of the hawks there but could find no nest.

April 18 I heard a Red-shoulder yelling so I approached the pines; and I found a typical egg of this species measuring 2.13 x 1.67 lying on the ground among some dry oak leaves. It is not unusual to find an egg of some

common small bird which has been prematurely dropped near a favorite feeding ground, but this is the first time that I ever found the egg of any hawk under such circumstances. It was slightly cracked, but it makes a good looking specimen nevertheless.

A careful search in the scattering pines soon revealed a new nest in a white pine tree about fifty yards from where I found the egg. This nest closely resembled a Red-shoulder's except that the lining lacked the green twigs of evergreen which for some reason the hawks generally use.

April 25, I visited the nest but no eggs had been laid. However I saw one of the hawks near it so I went back again on May 2, but found it still empty. This time I saw one of the hawks fly out of the grove so I carefully searched the trees around there, and climbed up to two other nests which proved to be old ones of previous years. But on the way home, I collected a fine adult male Sharp-shinned Hawk, so I felt repaid for my trouble.

May 9, I visited the nest and found that the owners had evidently deserted it, for another new nest had been built in a pitch pine within ten feet of the nest which I had been watching. Neither nest contained any eggs but the pair of Red-shoulders were still around there.

May 16, I went there again and I saw the black tail feathers of a crow protruding from the nest in the pitch pine.

Thoroughly disgusted I drove the crow off and climbed up and found three eggs. I understood then that I had been fooled from the start by the similarity of the crow's nest to the one of the Red-shoulders which I had found May 9. But I had no time to spare so I returned home, mentally vowing to try again some other time.

May 20, I took a day off and went after the Red-shoulder's nest in earnest, determined to put in a whole day if necessary in order to find it, for I had wasted so much time hunting for it that I hated to give up defeated. As I once more approached the pines a Red-shoulder began to yell and circle around overhead and I felt sure there must be a nest there somewhere. I stopped long enough to climb up to the crow's nest in the pitch pine, and as no more eggs had been laid, I took the set of three. Then I started to look over each separate tree in that wood-lot once more and finally under a small white pine scarcely 25 feet tall I found a wing feather of a Red-shoulder and a few excrements from the birds. The branches in the extreme top of the tree were thickly clustered and at first I could see nothing which looked like a nest. But after changing my position several times, I could see the ends of a few dry twigs lying horizontally among the green pine needles and I felt that I had the right tree at last. Climbing up I found the nest with two eggs of old *Buteo lineatus*. The nest was similar to the one which the crows had built. It was about the same size and was made of twigs, lined with soft cedar bark. But the lining of this hawk's nest also had dry leaves, grass, a few soft feathers and green branches of both red cedar and pitch pine. I believe it is a common habit of the Red-shoulder to place one or two green branches of some evergreen tree in the nest lining and I often wonder why the bird does so. The nest was so well hidden that I had passed under it several times without seeing it, and probably I would not have found it at all if I had not noticed the droppings of the birds underneath it. Both the eggs were so badly incubated that the shells were very weak and they cracked

open while I was trying to remove the embryo.

H. O. Green.

Stoneham, Mass.

The Cooper's Hawk in Pike County, Pennsylvania.

The crop of Hawks in Pike County is rather limited. True, it is that the wooded hills can boast their quota of the Red-shouldered but right here we must stop so far as abundance goes. The little Sparrow Hawk, so common over the larger portion of the state, is practically unknown here, while only at favored places does an occasional pair of Broad Wings or Red Tails make their home. At long intervals we may see the little Sharp-shinned, but rather than any of the above in this region is the much despised Cooper's. In six years of field trips into Pike County and through the Poconos I have never seen it but twice.

Imagine my surprise then, when on May 17, 1913, while working through a heavy patch of primeval timber near La Anna in search of a pair of Pileated Woodpeckers, I was suddenly halted by the peculiar cackle of a Cooper's Hawk. At first I could scarcely believe my ears and fervently hoped for a Sharp-shin but as I turned about there was the long, rounded tail of a Cooper's projecting over the edge of the nest fully seventy feet up in the double forks of an enormous Yellow Birch. After a struggle with the rough, flaky bark I looked over the edge and saw four bluish eggs. And glad I was that I had reached the nest for not only was it a record for Pike County, but three of the eggs were distinctly flecked and spotted with reddish-brown and I had secured another set of "Spotted Cooper's." As usual the eggs lay upon a hard bed of rectangular bark strips, the cavity being very slight.

Richard C. Harlow.



Nest and Eggs of Red-bellied Hawk in California
—Photo by J. B. Dixon

Eastern Connecticut Broad-wing Notes

It was a lovely morning, on May 24, 1911, the sun was shining brightly and I could hear the notes of birds in all directions. I left home about eight a. m., equipped with a collecting box, climbers and lunch, for a day's hunt for nests of the Broad-wing Hawk.

My first stop was in a small clump of white pines about one-half mile from home, at a nest I had seen under construction the week before and which I thought was a Cooper's Hawk, but as I thumped on the tree trunk I was very much surprised to see a female Sharp-shinned leave the nest and in a few minutes returned with the male, uttering their cries. As I did not need any climbers I was soon looking into a nest which contained two pretty eggs which I left to get a full set my next trip which was the next week.

I left this locality and after walking about a mile I passed by a nest in a Chestnut tree 45 feet up, from which I had taken a fine set of two Red-tail eggs April 1st and a set of three Red-shoulder April 20th. I was surprised to see the tail of a Hawk projecting from the nest. I banged on the tree trunk and the female Broad-wing left the nest and after flying about 25 yards perched on a limb and watched me as I was going up to the nest. The nest contained three nicely marked, fresh eggs covered with some fresh green leaves. This nest I will long remember as it produced some nice sets of eggs every year, but now gone with lots of others, the tree being cut for lumber this winter.

After crossing a small valley to the East about one-half mile in to one of my favorite spots I flushed a female Broad-wing from a nest in a chestnut tree only 12 feet from the ground, the same nest from which I collected my

first and only egg set of Broad-wing. This nest also contained three well marked eggs incubated about one week.

It was now lunch time, so after eating my lunch, having a good drink of spring water and a few minutes with my corn cob, I was ready to renew my search. After following along the bank of Snake Meadow Brook for about a mile I came to a patch of oaks. I had never found a nest of any kind of Hawk in these woods, and after passing through some good ground I never thought of finding a nest in these small oaks. As I approached the patch I saw a male Broad-wing perched on a dead limb but he was soon out of sight in the oaks. After looking some time I flushed the female from a nest that did not look half large enough for a Hawk's nest. It was the poorest constructed nest I have ever seen, just a few sticks, a few pieces of coarse bark placed in the top of an old Squirrel's nest. The nest contained three very nicely marked fresh eggs.

After tramping some time without finding anything, I became tired and started on the shortest cut for home, which led me down an old logging road through a swamp. I had not gone very far when I saw a male Broad-wing perched up high on the limb of an Elm by the side of the road. I stopped to think of a place that would be suitable for a Hawk to nest in and decided upon a clump of Chestnuts some 200 yards to the north. I was about to start for this clump when the male left his perch and almost the same instant the female followed him, having flushed from her nest which was placed in the same tree and was almost invisible from where I stood, it being placed in the forks of four limbs, up 18 feet from the ground. The nest contained two large well-



Red-bellied Hawk's Nest in an Unusual Situation, Swinging in Vines three feet from the Tree trunk; taken in California.
—Photo by J. B. Dixon

marked eggs incubated about one week. These eggs were covered with fresh green leaves as were all the other sets collected that day.

I arrived home about 5 p. m., tired and hungry, but well pleased with my success.

G. R. Barlow.

Danielson, Conn.

Goshawk Notes.

Goshawks still hang about my stamping grounds but the pair from which I took eggs and young for two seasons have deserted their old nesting ground for good I am afraid, since a lot of timber was cut off close by. Several times this past summer I have seen a Goshawk about some of the large timber tracts while prowling about or trouting in the mountains.

Early in December a fine adult Goshawk met his doom in a peculiar manner. A party living on a farm near here raises English Pheasants. He has quite a large enclosure covered on top and sides with wire netting such as is usually used about chicken coops. A Goshawk passing over saw the Pheasants but not the wire, and no doubt smacking his chops over the prospect of such easy picking he dropped like a shot and smashed right through the netting severing his head completely on the way through. The party who owned the place had just stepped out doors when the hawk made his dash and was just in time to see the performance. He brought the bird to me and outside of the head which was cut off, the bird didn't seem to be cut or broken up any way.

Later in December while hunting white rabbits or hares along a large tract of virgin timber, my friend and I found the tracks of a weasel chasing a gray rabbit up and down an old road. We went up the old road slowly toward the edge of the timber, keeping a sharp lookout for bunny, intending

to let him pass and then hand it to the weasel as he came along. Right at the edge of the timber an adult Goshawk got up off the snow ahead of us and soon disappeared among the hemlock. Arriving at the place we found where the hawk had killed the rabbit in the road and dragging it off a few feet had it half eaten up. So in this case the weasel didn't get his rabbit nor did we get the weasel.

R. B. Simpson.

Warren, Penna.

A Broad Wing's Nest.

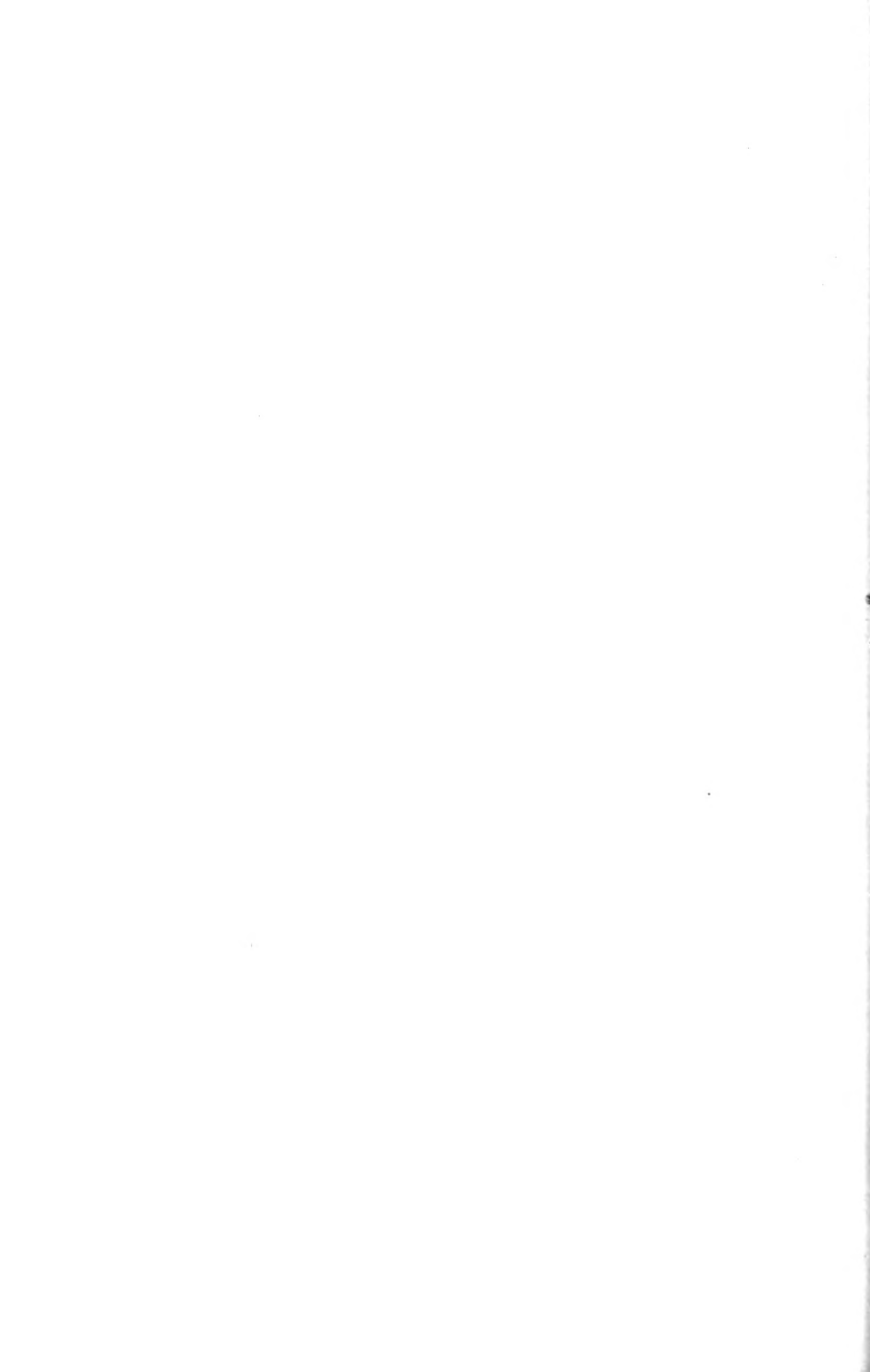
On May 7, 1910, I struck back over the mountains for a two days' trip in the woods. It is a wild, rugged country, lumbered some years ago but with a good covering of a second growth and exceedingly hard to work, on account of the dense undergrowth of Rhoddendron in the low lands. Beyond a vain chase of a pair of Pileated Woodpeckers, a new nest of the Black and White Warbler and a beautiful set of seven Chickadees eggs the day was devoid of anything extraordinary, though the constant lookout for birds above and snakes below kept one very busy.

Several times that day I noticed a medium sized Hawk flying over one of the thickest swamps so the next day I decided to see what it was doing in that locality. The undergrowth was so thick that I decided to walk up to the trout stream and watch the banks for possible Louisiana Water Thrush nests. Half way up the wooded section I heard a shrill "clee-e-e" and instantly stopped, recognizing it as the cry of the Broad Winged Hawk. The stream was lined with beautiful Hemlock at this place and I soon saw a suspicious looking dark mass about 40 feet up in a Hemlock on the very edge of the stream. As I started to ascend both Hawks soared about and finally



Nest and Eggs of Red bellied Hawk swinging in vine. Escondido, California

—Photo by J. B. Dixon





perched in the top of a tree across the stream, uttering their plaintive cries. As I looked over the edge of the nest I shall never forget the picture—there lay two of the most handsome Hawk's eggs I have ever seen on a bed of green Hemlock sprays, while below the mountain stream roared on its way through a mass of Rhododendron and Hemlocks. The nest was apparently built up on an old crow's nest and was built of sticks, chips of bark, twigs and as has been said, lined with green Hemlock. The eggs were incubated about three days.

In 1913 I found another nest containing two eggs in the same woods, on May 26th, but the nest was about fifty feet up in a hard wood, though near the stream.

Another nest I found with a single young Hawk was very peculiarly placed, being built in a dead Yellow Birch along a mountain stream near my Raven's nest. Though a regular breeder in the mountains of central Pennsylvania, it's nests are hard to find owing to the amount of territory a pair will range over and the fact that the character of the country is not conducive to the easiest methods of hunting. I have also taken its nests in Delaware and Bucks Counties and have found it breeding in Warren County along with R. B. Simpson, but its center of abundance seems to be in Chester County where Messrs. Jackson, Sharpless and Burns have found numbers of nests.

Richard C. Harlow.

Nesting of the Red Shouldered Hawk.

Years ago I read eagerly in the columns of THE OOLOGIST of the numbers of the nests of this species found by Ornithologists in Michigan, New York, and New England. At that time in my home in Philadelphia, my hopes ran mainly toward Hawks and

each year I tramped the hills in the vicinity in hopes of nests but save a few of the Cooper's and Sparrow Hawk, I was doomed to disappointment. Later at State College, Center County, I found a total absence of all large Hawks but still clung to the idea that I would find them. In the northern and several of the western counties the Red Shouldered Hawk is a common bird but in the eastern section of the state it is very scarce as a breeder. Several times on June trips to the Pocono Mountains I have found the fully grown young in the big timber of the swamps and mentally vowed to investigate at the proper time.

On April 19, 1910, I flushed a large Hawk from a nest in this locality and on climbing hurriedly up found one large, handsomely blotched egg which I left as I was compelled to leave the next day. The nest was placed in the triple forks of a large Sugar Maple half way up a hill, bordering a swamp and was built of large sticks and lined as usual, with green Hemlock sprays.

On April 8, 1912, I happened to be in the locality again and about fifty yards off from the above nest I found a pair building far up in a big Beech tree. As I stood watching them I saw the male place several sticks in the nest and then fly to the female who was perched nearby and stand on her for several minutes, all the while uttering his caressing calls.

April 20th found me back at La Anna again, prepared to make a systematic search for the nests of several pairs I had seen on my previous trip. As I neared the nest I had located, the tail of the sitting bird could be seen over the edge and I felt that throb through my veins that only comes with success. Strapping on my climbers I labored up the heavy trunk as the Hawk flew with a scream of defi-



Nest and Eggs of Red-bellied Hawk near Escondido, Calif.
—Photo by J. B. Dixon

ance from her home above. It was fully forty feet to the first limb and then a good thirty-five feet more to the nest, but my reward was there, three large eggs—splotched and dotted with reddish brown. The nest was in a triple crotch and made entirely of sticks, small branches and leaves, with a lining of green Hemlock sprays, while the tell tale downy feathers clung to the sticks (just as I had read in the accounts of J. Claire Wood, J. M. Ward, C. F. Stone.)

On down the valley I went until I came to another large woods on the side of a steep hill. Here I soon saw an immense nest half way up the hillside and a tap on the tree sent a large Hawk screaming out over the valley. It was an easy climb to the nest—only forty feet up in the triple crotch of a tall straight Sugar Maple and as I neared the nest I could see the fresh scars of a charge of shot which had been fired into it. This was much larger than the first nest, almost as large as nests of the Red-tail I have seen in Greene County, but was built of Hemlock sprays. It held two slightly incubated eggs.

Later in the day we were working up another ridge back toward La Anna when I saw another large nest in a Beech tree well up toward the top of the ridge. A quick tap sent the Hawk screaming off above and hurried me as I strapped on the climbers. It was only forty feet up in the forks of a medium sized Beech (a very small nest) and there in the slight, Hemlock-lined cavity lay three beautifully marked eggs—all fresh and blotched heavily with sienna and brown.

Several other nests were found in like situations with the Hawks about them, but the birds had not laid as yet. On April 15, 1913, I took another set of three eggs from this same

nest but found myself too early for the other pairs, though several were seen building.

I must confess a partiality toward the Red Shouldered Hawks—I have taken rarer nests, seen more handsome eggs, but never have I felt a greater throb of ecstasy than when peering over the edge of the nest—those heavily splotched eggs were seen, lying in their bed of green.

Richard C. Harlow.

The Downey.

On November 25th-27th, during an exceptionally mild spell, a pair of Downy Woodpeckers chiseled out a typical nesting cavity in a dead cherry stub in front of my shop and the birds protested loudly and seemed very much disturbed whenever any one approached. Doubtless their nest building at this time may be attributed to returning sexual activity, due to the mild, spring-like weather, rather than deliberate forethought in preparation of a snug shelter against future wintry blasts; yet the species was not seen on the place again until the eve of December 6th, in the midst of a severe sleet and snow storm, when one bird, I think occupied the hole for the night or at least until the ice covered branches fell with a crash.

F. L. Burns.

Unusual.

R. C. Martin, Junior, reports a Mockingbird nesting and raising a brood of four young in a Martin box at his home at Albemarle, Louisiana. Likewise of the finding of a set of seven eggs of this songster.

Two Albinos.

While on a hunting expedition in the hills of upper Passaic County, N. J., this past season I came upon a partly albino Bobwhite and a perfect albino Ruffed Grouse.

The Bobwhite was shot by a farmer at Stonetown on the morning of November 15th in a copse of conifers near the village and he had brought the specimen to a local roadhouse for exhibition. This bird was an adult male in perfect plumage except that the whole back from the neck to the rump was a glistening white and extended laterally to the wings. In addition to the white on the back there were several inconspicuous patches on the lower breast.

On the same morning I flushed the Grouse near the West Brook, also in a copse of conifers and after firing twice at it, missed both times. I followed this specimen for perhaps a quarter of a mile, flushing it three times before a shot could be made. On the fifth shot I brought him to the ground and on picking him up found the bird to be a perfect albino. The plumage of this bird was a dull white except for a few normal feathers appearing on the back and underparts. The eyes, however, were quite normal, as were also the feet and legs. My last shot had so riddled the specimen as to render it unfit for mounting and, aside from its unusual appearance, was a particularly tempting dish at a following meal.

Louis S. Kohler.

Unusual December Birds in Northern Jersey.

During the past month of December four unusual birds have been located on ornithological excursions in Northern New Jersey in the form of the Hermit Thrush, Swamp Sparrow, Killdeer and Red-breasted Nuthatch.

The Hermit Thrush was observed on Christmas day at Pequannock, Morris County, along the Canal Feeder and in an open field adjacent to the railroad station. These birds were seen feeding on the berries in both places in company with the Junco and

Song Sparrow and appeared quite contented in spite of the bitter cold which prevailed on this day hereabouts.

The Swamp Sparrow was found in company with the Tree Sparrow and Junco near the Pompton River at Pequannock on Christmas day and was feeding on the seeds of the weeds in the vicinity.

The Killdeer was observed at Singac, Passaic County, on December 13th, in the open fields adjacent to the railroad and were flying about and uttering their plaintive "Kill-dee" continually for perhaps ten minutes when they flew off in a southerly direction.

The Red-breasted Nuthatch was seen on Federal Hill, Pompton Township, Passaic County, on the 13th, among a growth of cedars, in company with several Chickadees and Golden-crowned Kinglets. A single bird was again observed on the 27th near Mud Pond, Passaic County, on the western shore, in the conifers.

Louis S. Kohler.

Rossignol on Sub-Species.

As to sub-species and sub-divisions, the Editor of this magazine in the November issue has most admirably conveyed his thoughts. These are titles which we can well retain, in lieu of anything better, all said to the contrary notwithstanding, and on this Ornithological subject I will endeavor to establish certain facts that have come under my observation anent infinitesimal microscopical sub-divisions.

It is well that we take cognizance of the fact that in the identification of sub-species even in transcendental hands we find in the majority of instances gross inconsistencies.

Taking the case of Seaside Sparrows, that breed in this County (Chatham, Georgia), we find the ornithological writers in general classing them as Macgillcraiy's, their geo-

graphical range of course being considered.

I have shot probably fifteen of these sparrows that were nesting, and have taken many sets of their eggs, and have submitted specimens for identification to the most learned ornithologists in this country. Their opinions vary as to what the birds really are. Some favor the sub-species theory, others holding that this is the true form; which of course leaves the whole matter still in the realms of the unidentified.

A particular specimen that I sent to the Biological Survey was identified by Dr. Richmond of the Divisions of Birds as the straight Seaside Sparrow. Several years passed before I again submitted this bird to the Bureau for another inspection, and this time it was identified as Macgillivray's Sparrow. The identification being by Mr. Oberholser. Immediately I sent the bird to Mr. Arthur T. Wayne, and requested him to send it to Mr. William Brewster.

Wayne wrote me a few days after, a letter to the effect that they were without doubt a sample of the true species. In due time Mr. Brewster's letter reached me in which he wrote that they agree with the breeding birds from St. Mary's, Ga.—“that as the Macgillivray's are known to breed at St. Mary's, they must in consequence be referred to the sub-species.” He also states that they show more gray than a series of birds from Massachusetts and Connecticut. It is very plain somebody is wrong. The truth will probably never be known; but one way will satisfy all concerned and that is to cut out all sub-species and restore them to their proper place, and then let the “spy glass” ornithologist rest content until the coming of another sun.

Sub-species have been, and always

will be, a curse to American Ornithologists. It is a blot on the nomenclature of North American birds. I have tried to write this article with the utmost restraint and where it is not free from bias, it is not my desire to offend any one.

But one more suggestion, if any of you should happen this way, stop over, and then I can tell you more about sub-species, but until then let harmony prevail.

G. R. Rossignol, Jr.

Savannah, Ga.

Chickadee Notes from McKeesport, Pennsylvania.

Last year, we are well aware, was one of the greatest for chickadees. Thousands of them invaded the hillside near our home and made themselves conspicuous in many ways. A well known ornithologist from West Chester, Pa., referring to bird life during the fall of 1913, wrote me, “Chickadees were here last fall by the millions.” Then to, Bird Lore's Christmas bird census showed a southern invasion of the acadian chickadee—a very unusual feature. This year we note a general scarcity of black-capped titmice and have yet to find a single chickadee on our nearby hillside.

Thos. L. McConnell.

Cowbirds' Eggs.

Since the year 1903 I have been keeping a daily diary of bird-life observations in New Jersey, New York, Connecticut and Pennsylvania according to the periods of time spent in each state above mentioned, New Jersey being the basis of all observations and therefore the most prolific in nests in which Cowbirds' eggs have been located.

During the period since 1903 to the present season 1914, twelve breeding

seasons have been canvassed and my observations have brought forth fifty-four individual cases, forty having been found in New Jersey, five in New York, seven in Pennsylvania, and two in Connecticut, where the least time was spent.

In 1903 five sets were located containing these eggs, viz.:

Blomfield, N. J., May 26th. Yellow Warbler, set of four and one. All young were reared successfully.

Bloomfield, N. J., June 8th. Redstart, set of four and two. This set was destroyed by several small boys on the morning of June 12th.

Pompton, N. J., June 4th. Red-eyed Vireo, two sets of four and one. First brood reared successfully. Second brood destroyed by a Sparrow Hawk on June 18th. Both of these sets were well incubated when discovered.

Middletown, N. Y. Yellow-throated Vireo, set with four and one, May 28th.

In 1904 seven sets were observed:

Bloomfield, N. J., June 1st. Yellow Warbler, two sets with four and one. In first case two Warblers and the Cowbird were reared. In second case the parents rebuilt nest covering up their own and parasitic egg and finally laid set which they reared successfully.

Warbling Vireo, June 7th, set of three and one. On June 20th found two Vireos and Cowbird in nest. Other ones' body underneath on ground.

Red-eyed Vireo, June 6th. Set with three and one. All young reared successfully.

Red-eyed Vireo. June 5th and 8th. Two sets of three and one. First reared successfully. Second destroyed by several Blue Jays on 10th.

Great Notch, N. J. Yellow Warbler, set of four and two. On June 2d. On June 8th found to contain two Warblers and one Cowbird about a day old. No trace of other three eggs.

Midvale, N. J., June 3d. Redstart, one set of four and one. On June 15th this nest contained full quota of young in healthy condition.

Haskell, N. J. Yellow-throated Vireo, June 3d. Deserted nest of this species with two Vireo and one Cowbird all of which were cracked and contents spilled.

Suffern, N. Y., Indigo Bird, May 30th, with three and one.

North Water Gap, Pa., June 12th. Yellow Warbler. Set of four and one. Female Cowbird on nest when discovered. Both parent Warblers endeavoring to drive off intruder.

In 1907 only three sets were located:

Montclair Heights, N. J. Maryland Yellowthroat. Set of three and one. On June 2d. On June 11th found this nest to contain only the young Cowbird which both Yellowthroat parents were supplying with a ready supply of food.

Midvale, N. J. Yellow Warbler, May 30th. Set of four and one. On June 10th nest contained full quota of young in healthy condition.

South Orange, N. J. Redstart, May 28th. Set of three and two. Did not visit this nest again.

In 1908 six nests were located:

Bloomfield, N. J., June 4th. Yellow Warbler. Set of three and two. This set was destroyed on the morning of the 6th by a black snake. Red-eyed Vireo, June 8th. Set of three and one. This brood was reared successfully.

Pompton Lakes, N. J. Indigo Bird, June 3d. Set of four and one. On June 15th parent Indigo Birds were feeding the Cowbird, all remained of the brood in the nest.

Mountain View, N. J. Yellow-throated Vireo, June 7th. Set of four and one. Did not re-visit this nest.

Nyack, N. Y., June 2d. Set of four and two of Yellow Warbler. On June 12th this nest contained two Warblers and Cowbird about two days old.

Pearl River, N. Y., June 5th. Red-eyed Vireo. Set of three and one.

In 1909, five nests were located:

Hanover Neck, N. J., June 2d. Red-eyed Vireo. Set of four and one. On June 8th this nest contained only the Vireo eggs, the parents having destroyed the egg of the Cowbird and it was laying on the ground underneath nest.

South Orange, N. J. Yellow Warbler, June 5th. Set of four and one. On June 17th adult Warblers were feeding the Cowbird, their own offspring having disappeared.

Caldwell, N. J., June 1st. Maryland Yellowthroat. Set of three and one. Did not revisit.

North Water Gap, Pa. Brood of three Yellow Warblers and one Cowbird found in nest at this place on June 18th, about five days old.

Bushkill, Pa., June 19th. A pair of Red-eyed Vireos were feeding a nestling Cowbird along with their own progeny along the Creek here.

In 1910 four nests were found:

Bloomfield, N. J., June 6th. Red-eyed Vireo, set of four and one. This brood was reared successfully. Indigo Bird, June 9th. Set of three and two. Two of the Buntings and one Cowbird were reared from this brood.

Butler, N. J. Yellow Warbler, May 30th. Nest containing two and one apparently deserted as all eggs were broken.

Midvale, N. J. Yellow-throated Vireo. June 7th. Set of four and one. On June 20th parents were feeding one of their own and the Cowbird.

In 1911 seven sets were located, four in New Jersey, two in Pennsylvania and one in Connecticut.

Bloomfield, N. J., May 30th. Red-eyed Vireo. Set of three and two. These were destroyed by some boys on 4th of June.

Newfoundland, N. J. Yellow Warb-

ler, June 4th. Set of four and one. Reared successfully. Were observed on July 4th in vicinity of nest with adult Warblers.

Oakland, N. J., May 29th. Red-eyed Vireo. Set of three and one. Did not revisit this nest.

Pequanneck, N. J., June 6th. Yellow-throated Vireo. Set of two and one. Ten minutes after discovery a Blue Jay destroyed nest.

Milford, Pa., June 11th. Warbling Vireo. Set of three and one. Did not revisit.

Bushkill, Pa., June 14th. Red-eyed Vireo. Adults were feeding two Vireos and a Cowbird in nest. Young about a day old.

Mianus, Conn., June 7th. Yellow Warbler. Set of three and one. Did not revisit.

In 1912 five sets were located:

Bloomfield, N. J. Red-eyed Vireo, June 4th. Set of three and one. This brood reared successfully.

Montclair, N. J. Yellow Warbler, June 6th. Set of four and one. On June 9th nest was found to have been rifled of its contents.

Greenwood Lake, N. Y., June 17th. A pair of Chestnut-sided Warblers were feeding a young Cowbird and two of their own offspring in nest. Young about four days old.

Water Gap, Pa. On June 12th a pair of Yellow Warblers feeding four of their young and a nestling Cowbird about four days old.

Coscob, Conn., June 10th. Red-eyed Vireo. Nest with two and one. This was found near creek near Greenwich city line along Boston Post Road. Did not revisit.

In 1913 one nest was found: Sparta, N. J., Yellow Warbler, June 8th. Set of four and one. Did not revisit.

1914 held forth two nests, one in New Jersey and one in Pennsylvania. Bloomfield, N. J. Red-eyed Vireo.

Set of three and one on June 4th. On June 20th parents were feeding all of the youngsters which at this time were about ten days old.

Water Gap, Pa. Yellow Warbler. Set of three and one along Broadhead Creek on June 12th well incubated. Did not re-visit.

In this tabulation appears nineteen cases of infringements against the Yellow Warbler, three against the Redstart, seventeen against the Red-eyed Vireo, six against the Yellow-throated Vireo, two against the Warbling Vireo, one against the Chestnut-sided Warbler, one against the Chipping Sparrow, two against the Indigo Bunting and three against the Maryland Yellowthroat, making a total of fifty-four for the twelve years.

Louis S. Kohler.

Bloomfield, N. J., Jan. 1, 1915.

Sub-Species.

Your opinion as given in the review columns of THE OOLOGIST for November on the subject of "Geographical races of American Birds" are shared by many interested in the wild life of our country.

I remember some ten years ago reading in a guide to the Zoological Gardens in the Bronx that a huge brown bear from Alaska could not be assigned to his proper sub-species until after his death when his skull unclotted of flesh would reveal his proper identity. I thought after reading this that we had come to the limit. Your subscribers have a good opportunity to acquire more liberal views as to the variations in a species. I remember when a boy, peeping in a Magpie's nest being surprised at the sight of seven or eight eggs varying from light colored to dark, and all unlike each other.

Do you think that the English Sparrow will develop changes from their over-sea form? It seems to be probable that they will.

One of your correspondence in a recent number tells of finding a tree in the town of Webb in this country with a number of nests of the Great-blue Heron in it. I suspect that the Herons I saw in the ponds on the farm where I now reside, come from there for food. It must be a great many miles away.

J. Thompson.

Cold Brook, N. Y.

Albino Robins.

Thomas L. McConnell of McKeesport, Pa., calls our attention to the fact that prior to the date of the publication of the photograph of the Albino Robin in the December issue of THE OOLOGIST, two photographs of an Albino Robin were published in Bird Lore, Volume 12, pages 8 and 9, the photographs having been taken by R. W. Hegner.

As Mr. McConnell says, "This is one on us."

Sharp-shinned Hawk.

Accipiter Velox.

In the past fifteen or twenty years, in this part of Massachusetts, this rare little hawk has neither increased nor decreased.

It arrives here about the first week in April but does not think of nest building until about May 5th to 25th. All nests I have found have been situated in pine trees at an average height of thirty feet, rare cases at seventeen feet and up to forty feet. Also a new nest is made, never a patched up old nest of any kind of bird.

The following description of the last set taken is typical and will answer for all sets I have had anything to do with.

Some weeks previous I had been through this locality after larger and earlier nesting hawks and had noted a pair in a group of medium sized pines, so determined to come back

again in 332 time. On the morning of May 25th started out and locality was one that plain hiking was the order. The weather here is variable, hot and cold in May, and this day decided early to be hot. Also about this time all the mosquitoes, brown tails, etc., have hatched so had everything fixed for me by nature. The group of pines was located in a fairly large chestnut woods. I gave all the pines a good looking over for nests with a bird's tail sticking over the edge, but no luck that way so started the right way. First tree with a nest in, rapped it and then climbed it, an old one, 35 feet up and just as far down. Climbers were no good as limbs are numerous, small and dead. Number two the same, add seventy feet more. Number three the same. Beginning to get nervous so rapped the next until I had most of the lower bark off, then went up and when my hand could touch the nest, off went Mrs. 332 with a noisy sort of cac, cac, cac.

The diameter of the nest was greater than the length of the hawk and from the ground neither head nor tail could be seen. You can't see thirty feet up into a pine from as many positions as in a chestnut or similar tree, and when the set is full 332 is a close sitter. One can easily lose if he doesn't go up to every nest, for while rapping a tree will sometime make her leave, the surest thing is to go up.

This nest was thirty feet up, placed close to the trunk made of small sticks, with bits of pine bark for a lining and was quite shallow. It contained five eggs, slightly incubated. When sets are fresh when found a second set of about four can usually be taken from same nest ten days later. Eggs were wreathed nearer the middle than end of egg with a varying amount of blotches and spots over rest of egg. Real lightly marked sets are rare.

With five nicely marked eggs packed away and face and hands washed at a nearby brook, pipe refilled and lighted, I could even laugh at the mosquitoes that had made life miserable for me the last two hours and beat a happy retreat.

Roscoe I. Giles.

Marlboro, Mass.

Law Married.

J. Eugene Law, one of the most prominent of the Coopers' Club members, one of its business managers and a well known California banker, has gone and got married as evidenced by the following from a California paper:

BANKERS CONSOLIDATE.

Miss Laura M. Beatty, who until a week ago was the assistant cashier of the First National Bank of Hollywood, and believed to be the only woman in California holding such a position, was married yesterday morning, to John Eugene Law, former president of the same bank. The ceremony was performed in the Euclid Heights Presbyterian church, following which the couple left in an automobile for San Diego, planning to return soon to occupy a home at No. 1834 El Cerito avenue, Hollywood.

To California.

With the closing of the forms for this issue of THE OOLOGIST, February 2d, the editor leaves for California to go to the bedside of the very best mother in all this wide, wide world. Eighty-one years of age, white-haired and bent, but with a heart as warm and a mind as bright as ever. In her sickness she awaits our coming, and we count the hours until we can press her dear shrunken hand in our own.

We may be gone a month; maybe three of them. In the meantime we

beg the consideration of our readers if THE OOLOGIST is not quite up to standard.—R. M. Barnes.

Two Remarkable Runt Sets.

Bobolink, five eggs, measuring .65 x .47, .47 x .37, .48 x .39, .49 x .40, .51 x .40, inches.

Red-winged Blackbird, five eggs, measuring .55 x .46, .56 x .46, .57 x .47, .50 x .49, 1.00 x .66 inches.

Both sets were collected in June 1914, in Benson Co., N. Dakota. The nests were in the same meadow and not more than seventy yards apart. A single runt in a set, is of course a not uncommon occurrence, but if anyone has ever recorded a set to equal these of mine, the record has escaped my notice.

The Red-wing nest when found contained two of the runts. The other two were the next deposited, the normal egg being the last. None of the runts in this set contained any yolk and three of them show much rough shell surface. All are normal in color.

The Bobolink nest when found contained three eggs, one of them being the larger egg, which is of course, itself a runt. Each egg in this set contained some yolk, and all are normal in color and shell texture.

Fred Maltby.

Kansas City, Mo.

Suggestion for Martin Houses.

Martin lovers who have had their flocks of chattering Martins driven away by the Starling have read with interest a noteworthy contribution to Martin house building by Charles H. Townsend, Green Farms, Conn., in the September-October number of Bird Lore.

A way has been discovered to keep the Starling out of our Martin boxes. Mr. Townsend writes as follows: "In

this region, the holes of Martin houses must be large enough to let Martins in and keep Starlings out; but the Martins will not enter a one-and-seven-eighths inch hole unless there is a half-inch hole just above it to let in the light. The Martin's body in the small entrance makes the compartment dark, and the bird seems afraid to enter. After the half-inch windows were bored, they entered freely."

The old question as to proper color for painting Martin boxes bobs up every once in awhile. White is the best color because it is the coolest color, reflecting more of the sun's heat than any other color. Heat is very fatal to the young fledglings and is largely responsible for the many dead bodies that we remove every fall from the deserted bird houses. Then again, white as we noted in one of our articles on this subject in Bird Lore, seems to harmonize with the nature of these birds. White is the avian antithesis of red. A gentleman this summer told us about painting his bird house red and how the Martins shunned the place like a house of death.

To those about to build something up-to-date in the Martin house line we refer to the excellent article by Ned Deaborn, "Bird Houses and How to Build Them," U. S. Department of Agriculture, Farmer's Bulletin, No. 609.

Martin lovers have missed a real treat who have not read the article upon Colonizing the Purple Martin, by J. P. Reiff, in the National Sportsman, January, 1914.

Thos. L. McConnell.

Copy.

We are out of short newsy notes of two to ten lines each. Send in some even if you write it on a postal card. It is the short pithy items that we want.—Editor.

THE OÖLOGIST.

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Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.



Florida Red-shouldered Hawk's nest at top of pine tree
—Photo by Finlay Simmons

A Nest of the Florida Red-shouldered Hawk.

The Florida Red-shouldered Hawk is one of our commonest breeders here in Harris County, Texas. Every year three or four pairs nest in a strip of pine woods about 8 or 9 miles up Buffalo Bayou. This strip is a quarter of a mile wide and three miles long. Besides these Hawks, a few other Raptores are found in this strip; namely, Black Vultures, Swallow-tailed Kites, Red-tailed Hawks, Screech Owls, and Great Horned Owls.

My first day of Spring fever, this year, fell on April 18th. It was a fine, crispy morning, so I arose early, shouldered my traps and hiked up the bayou. I spent all morning searching for the nest of a pair of Red-shouldered Hawks which had attracted by attention in one corner of this strip of woods, but I found nothing but a Black Vulture nest. I got a nice set of two out of the nest which was in a hollow sycamore. I decided to postpone the search for the Hawk's nest, until some other day.

On the 29th of April, I got my traps together, and tried again. After about an hour's search I heard the scream of the hawk to my left. I hurried over there and soon found the nest, which was 45 feet up in a pine. It was well situated, being placed in the only fork of the tree. There were four or five branches in this fork and the nest had been added to, each year, until it was about two feet high. It was a tough climb as the first limb was about 35 feet up; the tree was draped in Spanish moss, which clogged my climbers and kept getting in my eyes and down my neck; and the bark scaled at every step.

Upon reaching the nest I found it contained two young hawks, several days old; one was a little larger than the other, although both were too

young to do anything but emit a weak whine. Both were covered with dirty white down, and had yellow feet. They had sky-blue eyes. A fourth of an inch at the tips of both mandibles was black, the remainder of the bill being yellow.

The nest was composed of sticks of all sizes and contained a small supply of cord, which was wound in and out among the sticks. It had been used for several seasons as could be told by the different layers of sticks. The nest was 22 inches across, 2 inches deep, and contained a lining of green pine needles.

I attempted to get a snap-shot from two positions, but the results were not very satisfactory. A time exposure was out of the question as the tree was swaying in the breeze and my footing was not very secure. The following is from my note book:

"May 6. Visited the Red-shouldered Hawk's nest at 2:30 p. m. in company with George Ewing, of this city. The young faced me with snapping beaks and showed a strong desire to claw me. They were considerably larger and the pin-feathers were showing in both birds. The primaries were beginning to appear in the wings of the larger bird. The nest contained the remains of a Garter Snake.

"May 14. As we approached the nest, both parents started calling. The young were beginning to take on a mottled look. The primaries were showing in both young. The larger sunk his claws in my hand as I picked him up to see how heavy he was. One of the parents probably the male, did all of his calling from the top of a nearby pine, but the other flew nervously about, several times quite close to us, and kept calling all the while. The tree had the appearance of being white-washed in spots from the amount of excrement which had collected on



Finlay Simmons in Florida Red-shouldered Hawk's Nest
Holding one of the Young
—Photo by Finlay Simmons

it. The nest contained the remains of a frog.

"May 20. We visited the nest this morning. The primaries were beginning to open and both young were doing well. Both parents were circling overhead and as we were about to leave another hawk joined them. All three kept up a continuous screaming. We found no food in or about the nest.

"May 27. I visited the nest for the last time, in company with George Ewing. The female was the only parent in sight, but the male appeared as soon as I started up the tree. We could see both young from the ground. As soon as I got to the nest I held the largest nestling up and was shot with the camera, in the hands of my friend. The only down on the two nestlings was confined to their heads and underparts.

I drew the camera up and took several pictures on a level with the nest, and then climbed on above the nest and took a picture from there. The downy white heads of the two looked like skulls as they braced themselves and peered upward, watching my movements. This time there was the body of a Cardinal as food for the two. Although the two young appeared to have plenty to eat, we found only the remains of the three things as named above, viz: Garter Snake, Frog and Cardinal.

I was sorry not to have been able to visit the nest again but I was compelled to be out of town for two weeks. The young were nearly ready to leave the nest when we visited it on the 27th, and I expect they left by the 2d of June. Finlay Simmons.
Houston, Texas.

thaws come, one of the pleasantest sounds that greets the rustic's ear is the tapping of the woodpeckers. From the little downy woodpecker up it is a habit of the whole family of Picida. It is variously used to keep in touch with companions, to call to partners already selected or selecting for the breeding season or as a general expression of exuberant good will toward creation at large. In fact I am not sure but it is regarded as music among the members of the tribe for they are very pleasant xylophones as they come from the otherwise silent thawing woods. Each species has his peculiar style of rolling call by which the ornithologist distinguishes him.

But above all the rest in power and impressiveness, is the masterly roll of the great Log-cock or Pileated Woodpecker. Not only is it one of the most notable sounds of spring but once heard it can never be forgotten. This roll is composed of twelve strokes or blows, forming an ascending and descending climax; increasing in rapidity and volume to the middle and dying in force and rapidity just as it began. While the bird may not give the complete roll, may break off anywhere, it is always, so far as I have heard, a part of the above. It might be pictured in dashes, accelerating in time and power and diminishing in exactly the same way. A mellow yet powerful cellular jar to which the whole wooded heart of the forest makes echoing response—a solemn and ancient sound like the muffled blow of the woodman's ax yet older and more antique than that even, for the time was when the Logcock was the only wood cutter and his chips alone strewed the forest floor.

Thus one March I heard one drumming far away on a sounding board of peculiar musical resonance and power to carry, and the sudden desire

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**The Rolling Call of the Pileated
Woodpecker.**

By Ernest Waters Vickers.

When the January and February



Photo of Florida Red-shouldered Hawk's Nest, taken from directly above the nest. The young bracing themselves and watching the photographer above them.

—Photo by Finlay Simmons

lar tree and catch him in the act. An interesting fact or two awaited me as is generally the case if we investigate things for our selves. In the first place, as developed and it seemed incredible, I had often heard this roll a full mile and a half away; once or twice I had even heard it in the house with doors and windows closed! One who has never heard this remarkable living mallet will suppose I am yarn-ing, such however, is absolute truth. From this time I heard him for several years or until a heavy storm uprooted the great tree where his chosen sounding board was located, when he found another which was more punk by contrast with his former one. To be explicit this old sounding-board was the hollow limb or arm of a big tulip tree or "white wood" flung out at right angle from the trunk 60 or 70 feet from the ground, a mere shell as appeared, with a good big hole—thoroughly seasoned, accordingly sound and hard and barkless. The spot where he hammered was white where the weathered gray fibers had been beaten off by constant use. When the old tree fell I tried to secure the portion of the limb or more through, which the bird had used, to keep as a souvenir, but by some twist of fate I could not extract it from the debris and finally concluded that it must have been driven deep in the earth when the tree came down.

But that April day I stole cautiously through the woods and drew very near so that I could watch the great woodpecker beat his sounding board, through a spyglass. This is how he went about it and I saw him again and again. He sat upright upon the limb grasping it firmly (much as he is figured in Nuttall's Ornithology page 444) poising himself, making a motion or two as a neat penman about to begin writing, starts with a preliminary flourish, struck the limb somewhat

lightly at first and deliberately, accelerating both speed and power, diminishing to stop as he had started. He then paused to listen to the effect attend to the echoes, or wait for the response of his mate perhaps, which occasionally rolled back from somewhere away east in the woods. He would hop about a trifle, cock his head examining his neighborhood a little, dress his feathers or search for parasites;—but not for long did he forget what he was there for; then gather himself up for another reverberation. With such energy did he hammer that his whole body shook and his wings quivered. He fairly hurled himself wildly at it. The great loose hair-like scarlet crest flowed in the sun and his scarlet mustache added to his noble and savage appearance.

When at last he flew his flight was powerful and straightforward, his head and neck carrying his powerful beak like a spear, were held out to their uttermost. As large as a crow and with a certain short, sturdy, kingfisher-like aspect,—will convey some idea of this superb wild creature—a savage left over from a violent wilderness lingering in the haunts of his ancestors. I was possessed with the longing to take a photograph of the "king of the woodpeckers," so just one week later I appeared early on the scene, climbed to the top of a sturdy young beech where I fixed my camera, dropped a coil of rubber tubing to the ground where I lay in vain, bulb in hand, all morning. It was the "King's" day off evidently, he never came near and for me, the chance for another trial never came again. I have followed the Logcock often and have longed for his skin for my cabinet; but my reverence or worship of him has been too great to allow me to raise my gun. I am not ashamed to own it, and I have been a collector many years.



Young Florida Red-shouldered Hawks one month old
—Photo by Finlay Simmons

When I catch a glimpse of his great dusky, vanishing form, the dials of time are reversed and I am in the primeval wilderness ere Columbus dreamed the world was round; ere liberty rocked the babe of a new nation in her rude pioneer cradle; ere the simple Concord Minute Men "fired the shot heard round the world"; I am in the forest primeval, savagery is afoot and the moccasin print of the redman is on the leaves.

I fancy the Great Northern Woodpecker must have held a high place in the mythology of aboriginal nations. He was perhaps, the big medicine who announced the arrival of spring throughout the forests. When "Wa-Wa" the wild goose flew northward, imagine the effect as master after master took up the gavel and rapped the great forest house to order, mile after mile, on and on, northward and still northward as spring swept from the Gulf away up into the Canadas! The loud roll of the Log-creeper on and on!

Copy.

We need copy, and we need it badly; especially do we need short newsy notes. With spring awakening and the birds beginning to sing, surely is the time when our thoughts turn birdward and some good newsy notes should be forthcoming. THE OOLOGIST and its readers will appreciate being remembered with them.

Books Received.

From Tasmania.

One of the most interesting of the many publications that reach our desk is the annual "Easter Camp Out" number of the Tasmanian Field Naturalists' Club. It is a well gotten up report, including lists of members, descriptive matter and illustrations, giving a history every year of the annual

outing of the Tasmania Field Naturalists Club, which in 1914 was held at Wineglass Bay, Tasmania.

Not the least interesting part of this publication is the illustrations therein contained, from which may be obtained a good idea of the country visited and of the membership of the club.

This winter the Club, more than one hundred strong chartered the Steamer "Koo-meela," a vessel of 200 tons and sailed down the coast of Wineglass Bay, leaving at midnight (this is noon in that island), April 9th, and returning the following Tuesday night. The report of this expedition is accompanied by numerous scientific reports of the results obtained, and it most certainly must have been a pleasure to those who participated.

FROM TASMANIA.

BIRDS OF LAKE COUNTY, ILLINOIS, by Henry K. Coale, 1910.

This is a separate, taken from the History of Lake County, and is a well prepared local list of 269 numbers. Being prepared by as thorough a scientist as Mr. Coale, it is needless to say it is absolutely accurate, and a creditable production.

Perhaps but few of our present readers know that the editor of this list, Mr. Coale, spent many years gathering together one of the most complete collections of North American Bird skins in existence, and later disposed of the same to the British Museum where they are now lodged. Since this transfer he has again started and has prosecuted for a good many years the making of a second and similar collection, and now has a magnificent assemblage.

We remember meeting Mr. Coale way back in 1887 and from that day until December, 1914, we had never seen him, though having had frequent correspondence with him.

The Great Horned Owl.

Not many years ago the Great Horned Owl (*Bubo v. virginianus*) was a common bird in south-western Pennsylvania. As the time passed and larger timber tracts were devastated these great birds sought shelter and homes in the smaller woodlands. Such places afforded them suitable seclusion then, but since this great owl chose to prey upon the poultry of the neighboring farmers he brought disfavor upon himself and was eagerly sought by man, to be destroyed as a pest. So, today, when none but the smaller clumps of timber land remain, Great Horned Owls are comparatively scarce, and their nests are seldom found.

During the past spring a friend and I, while searching for nests of the Red-tailed Hawk, were so fortunate as to find a mother owl at home with her young. The occupied nest was a deserted one of the *Buteo b. borealis*. We left the owl and her nest undisturbed, hoping we might find her there when the next nesting season should come.

This year when early February arrived, the usual "owl fever" grasped me with a rugged hand and I made my way to the former nest of our friend, the owl. Upon arriving at the clump of tall oaks that had harbored the home of *Bubo v. virginianus*, there remained not even the remnant of the past year's nest. The wintry blasts had perhaps swept it from its resting place,—maybe some wrathful farmer had torn it from the crotch. Sadly disappointed I crossed a neighboring ridge of hill and entered a wooded ravine which rests between two friendly hills. During the past spring I had seen a Hawk's nest there, placed in the crotch of a great white oak. A short walk and a climb through the fence brought me to a suitable view of the nest. Two slight, dark protrus-

ions surely must be the ear tufts of an owl. Yes, I was right, it was an owl, for she moved slightly as I came near. A few fluffy feathers swayed in the breeze,—a sure sign of owl's eggs. With a club I rapped loudly on the tree trunk but the bird refused to leave her lofty home. Darkness was now approaching so I tramped happily home, with the intention of climbing to the nest when the morrow arrived.

Upon getting up the next day I found the air quite damp and chilly and a hazy cloudiness that so often precedes a snow storm overcast the sky. I gathered together the climbers, a large rope and a camera and started for the home of the owl. When I reached the wood snow began to fall. The owl saw me approaching and moved so as to watch my actions. I strapped on the climbers and began to ascend the great oak. When I had proceeded some ten feet the owl swooped from her nest and sailed silently down the ravine. I pulled myself over a treacherous crotch and climbed to a limb below the nest. Pulling myself up higher I peeped over the rim. There lay three white eggs, beauties they were, resting on the soft fluffy feathers from the owl's breast. Surely such a sight was worth the hard climb! What can surpass the pleasures of finding a nest and eggs of our Great Horned Owl,—especially when it holds three eggs?

S. S. Dickey.

Nuttall Woodpecker.

This little black and white woodpecker is one of the most interesting of the many birds of Los Angeles County, where it is a common resident in the oak regions of the foothills.

In suitable localities it may be observed at any time of the year, and as he lights on the under side of a

limb reminds one strongly of a nut-hatch.

Its food is mostly of an insectivorous nature, consisting mainly of small beetles, weevils, caterpillars, etc., although they sometimes eat acorns and a little grain.

The breeding season extends from about April 1 to June 1, and nesting sites are usually found in the oaks of the foothills, although I have found nests in the willows of the river bottoms and in sycamores and alders of the mountain canyons above 3000 feet.

The eggs are usually four in number and all the sets I have found have been of this size, although others have found sets of five and six.

I have never found this species occupying an old hole or a natural cavity, and believe that they excavate a nest each year.

D. I. Shepardson.

Los Angeles, Cal.

**List of Birds of the Eastern U. S.
Found in Jamaica, B. W. I., and
Colombia, South America, in 1913.**

By Paul G. Howes.

The following list of birds of the eastern U. S., are those recorded by the writer while in the British West Indies and Colombia, S. A., between January 13th and April 29th, 1913. This list sheds considerable light on the migration and winter habitats of many of our common birds and should be of great interest to all thinking ornithologists.

To the writer there is no question quite as absorbing or fascinating as the migration of wild bird life and I therefore take pleasure in presenting this paper:

Wilson Snipe. Two were taken in a marsh at Puerto Berrio, on the Magdalena river, January 30, 1913.

Solitary Sandpiper. Two taken in the same locality marsh January 30th.

Spotted Sandpiper. Quite common all along the Magdalena river as far up as Puerto Berrio.

King Bird. On April 14th on the way down the Magdalena after having been over the eastern Andes, a large flock was observed at the above locality (Puerto Berrio). This flock was doubtless making ready for their flight to the northern states.

Acadian Flycatcher. A single specimen taken from a group of four individuals at Apon on the Magdalena, January 27th.

Alder Flycatcher. Noted at Puerto Berrio, January 29th.

Rose-breasted Grosbeak. The first one recorded was a male specimen in changing plumage at Consuelo, about 4000 feet above the river town of Honda. This bird was in a more or less open forest which was often covered by clouds and in which every tree and every twig was covered with varied and beautiful mosses and lichens. Mosses also grew under foot making a soft carpet and everywhere one noted the drip of perpetual dampness. A second male specimen in full plumage was taken at Villavicencia on the eastern slope of the eastern Andean range on March 11th. This was a much dryer country at an altitude of 2000 ft. Two more were observed and collected at Fusugasuga on March 24th. These were taken at 7500 feet in a beautiful jungle forest. One was in full, and one in changing plumage.

Dickeissel. A few were observed at San Marta, Colombia on April 29th.

Summer Tanager. Puerto Berrio January 30th. Male. Shot on thickly grown dry hillside, February 6th, Honda, Male in changing plumage. March 15th Buenavista, 4400 ft. Several in gigantic jungle forest. March 16th, Monteradondo 4500 ft. Single in changing plumage. March

27th, Aguadita, 6450 ft. Male in changing plumage. The last three localities named above are in the most beautiful Andean country in Colombia. Here one finds beautiful virgin jungles and heavily timbered hills and roaring mountain streams. In the jungles it is nearly dark and all things, save the birds and animals, are beautified by thick mosses and long slender air roots reaching far into the mammoth and tangled branches of the jungles trees. Sometimes there is no sound of bird voices, only the drip, drip, drip of the mighty jungle and weird compelling odors that fascinate, and drive the naturalist farther into its mystery. Then from a distant valley comes the siren-like call of a great Guan, at your right the mournful piping of the Tinamou and in the trees above the twitterings of smaller bird life. In a second the jungle is transformed into veritable aviary which lasts for a few moments. Then the flock overhead passes on, the tinamou and grallaria cease their whistling and even the guan's siren fails to pierce the purple mist of the valley.

Sometimes I found it hard to break this silence with my gun and often would let a flock go by in peace. Grandeur and beauty and the power of this life, grip one's imagination and aesthetic sense. Red bugs and biting ants are forgotten and one finds himself seated bare-headed on a moss grown boulder wondering at it all.

Black and White Warbler. January 13, Kingston, Jamaica. (Single). This bird and all of the following warblers seen in Kingston, were noted in the botanical gardens. February 6th, Consuelo, 4000 ft. Quite common. March 14th Buenavista 4400 ft. Several were noted in heavy forest. March 27th Aguadita, 6450 ft. Two females were taken.

Prothonotary Warbler. January

23d at Algodonal on the Magdalena river, a single specimen was taken.

Golden-winged Warbler. February 6th at Consuelo a single one was taken in woods at an altitude of 4000 ft. March 24th two taken in the forest above Fusugasuga at 7500 ft.

Tennessee Warbler. March 15th at Buena vista one was shot out of a pair in heavy forest at 4400 ft. This specimen was a male.

Parula Warbler. January 13th. Kingston, Jamaica. Two specimens.

Yellow Warbler. January 21st, at Calama on the Magdalena, a single seen. March 11th, Villavicencio 2000 ft. Abundant. April 13th, Honda on the river one or two were noted and a few more at Santa Marta on the coast on April 29th.

Black Poll Warbler. Two were taken on March 11th at Villavicencio at 2000 ft. These birds, both in changing plumage were feeding in the tree tops overhanging a small river. I avoided loosing many specimens in the tangled ground growth at this place by dropping the birds into the river and then wading after them. On March 27th a male in full plumage was shot at Aguadita at 6450 ft.

Blackburnian Warbler. This species was by far the most common observed on the trip and were found as abundant at 7850 feet as at the lower altitudes. None were seen along the river or at Villavicencio. Consuelo at 4000 ft. claims the only one found at a really low altitude. This one was taken on February 6th. March 13 and 14th this species was abundant at Buena vista at an altitude of 1400 ft. On March 22d I found great numbers of them 6000 feet upon the hills above Fusugasuga. These birds were in full plumage and were feeding about the lower growth in open spaces on the hills. It seemed as though I were back in Connecticut during a warbler wave

in May so common were they. March 26th at Aguadita they were again abundant at 6450 feet. April 1st I noted many flocks at El Roble at 7850 feet and on April 6th a single one was observed on the paramo near Sibate at 8800 ft.

Yellow Palm Warbler. January 13th a single specimen seen at Kingston, Jamaica.

Prairie Warbler. Several seen at Kingston, January 13th.

Louisiana Water Thrush. The first one was noted on the Magdalena at Puerto Berrio on January 30th. On March 11th I found a single individual at Villavicencio. This bird was feeding along the banks of the same little stream where the two Black Poll warblers were shot. Another was seen on March 14th at Buenavista at 4400 ft. and another at Fusugasuga at 7500 ft. on March 24th.

Mourning Warbler. January 30th. Puerto Berrio, a single bird was taken. Two more were shot at Villavicencio, one on March 11th and one on the 12th. At Fusugasuga two were noted at 6000 ft. on March 22d and 24th.

Maryland Yellow-throat. Several seen in the Botanical gardens at Kingston, Jamaica on January 13th.

Canadian Warbler. Consuelo February 6th, 4000 ft. at Aguadita, 6450 ft a male specimen was taken. This bird was the usual yellow on the breast, but the black wreath was just making its appearance. On March 27th, several were seen in the same locality, one a male in full spring plumage. All of the Canadians were noted in heavy woods traveling in company with other warblers and especially with the little Yellow, blue-black and rufus crowned "Redstarts," of Colombia.

American Redstart. January 13th, single at Kingston, Jamaica. March 11th and 12th they were abundant at Villavicencio at 2000 ft. A few were

also seen at Santa Marta on April 29th.

Grey-Cheeked Thrush. Only one specimen noted. This bird was taken in the forest above Consuelo at about 4 000 ft.

Olive-backed Thrush. February 6th, Consuelo, 4000 ft. Single in woods. March 14th, Buenavista, 4400 ft. Two seen in very deep woods. These two birds were feeding about damp places in the forest. March 24th, on the hills above Fusugasuga at an altitude of 7500 ft. a pair were noted. March 26th at Aguadita a single in an open wood at 6450 feet. March 27th, several more were noted in heavy woods in the same locality and altitude. Three were noted late the same day in the same location. These were probably the same birds as they do not move very far in a day. The last one was noted on April 3d at El Roble 7850 feet. The bird was in open cover close to a heavy forest where such birds as Tucans and calistes abound. It was a strange combination and novel experience to see the Olive-backed almost side by side with typical birds thrush of the northern states feeding of the tropics. It strikes one as being more like a zoological garden than nature in its natural state, just as it was hundreds of years ago.

It is interesting to note these records of the Olive-backed Thrush in connection with my article on the migration of this species in THE OOLOGIST for September, 1914. Had I possessed the above data at the time of writing that article, the winter range shown on my map might have been extended to Colombia.

In order that the location of the places mentioned in this paper may be more thoroughly understood I give an outline of the trip from start to finish, naming each locality in the order visited.

The expedition left New York on January 8th, 1913. The steamer stopped first at Kingston, Jamaica. From here we went direct to Colon and thence to Puerto, Colombia, where the expedition started inland. The Magdalena river was ascended for some four hundred miles, the towns of Calama, Algodonal, Banco, Remolina, Apon, Puerto Berrio and Honda being visited on the trip. From Honda we traveled by pack train to Consuelo, 4000 feet, Guaduas, 3400 feet, Villeta 3000 feet, and finally to Bogota which is 880 feet above sea level. From Bogota we went straight over the eastern Andes to Villavicencio over the most exciting and dangerous trail anywhere in South America. This trail actually hangs upon the sides of these great mountains. On one side there is almost a perpendicular rise for hundreds of feet and on the other a perpendicular drop for two or three thousand more. The trail is often only wide enough for one pack animal and their disheartening habit of walking on the outer edge causes some little anxiety until one becomes accustomed to the country and its great heights.

From Villavicencio we traveled back over this same trail to Bogota and then set out in a new direction. Monteradondo and Buenavista, so often mentioned are on this trail. Fusugasuga was our next locality, this journey being made on foot by the writer and T. M. Ring a distance of 21 miles over the mountains. Here we collected for a few days and then worked our way slowly back again over the same trail, stopping at Aguadita, 6540 feet, El Roble, 7850 feet, El Pinon 9550 feet, and then to Bogota once more. From here we traveled to the Magdalena again and finally out to the coast, reaching New York on May 9th, 1913, with some three thousand birds and animals, several of which have since proved new to science.

Notes on the Black-crowned Night Herons Nest and Eggs.

On April 16, 1912, in a small herony of the Black-crowned Night Herons near Red Bank, Gloucester County, N. J., I found a pair of these birds nesting in an old 1909 *Corvus brachyrhynchos*' nest in the midst of the colony. The nest was about 30 feet up in the top of a scarlet oak and was quite flat as the sides had fallen in and the heron had laid a few twigs upon it and deposited her two eggs, which the nest then held, upon the flat structure.

A rather small set of Heron's eggs collected in this herony on April 16, 1912, measured 1.96 x 1.44, 1.90 x 1.43 inches and are of an oval shape.

A set of four long, narrow eggs of this species, collected in this herony measured 2.34 x 1.23, 2.34 x 1.32, 2.33 x 1.32, 2.33 x 1.35 inches.

We found two sets of three eggs containing runts, one small egg in each clutch, but as they are not in my collection I cannot give the size of them.

We found full sets of eggs, four and five, in this herony, on April 17, 1909, April 15, 1911, and April 16, 1912, and yet there are some "closet naturalists" who contend that this species does not nest here until May, and insist that the bird does not arrive in this vicinity until the first or second week in April, but our observation proves otherwise.

In this herony clutches of four eggs, fresh in incubation, hatched in 21 days or three weeks, according to my observation, for many nests containing fresh sets on April 17, 1909, had hatched and were hatching on the following May 9th, and the same thing happened in 1911, when clutches observed on April 15th were hatched and hatching three weeks later on May 7th. Unfortunately for our 1912 confirmatory observation upon the period of incubation of *Nycticorax*'s eggs, the herony

was deserted on May 11, when it had been occupied on April 16th ult., by over seventy pairs of birds and at that time most of the nests held full sets. We never really learned the cause of its desertion but believe Italians and Negroes were the cause as they annually raided it of the young birds for food.

Richard F. Miller.

Still in California.

THE OOLOGIST for this month is edited by one not so well versed in the business as the Editor, who is still at the bedside of his dear mother in California. We trust therefore that the real standard of the magazine will not be judged by this issue.

Unused Red-headed Woodpecker's Nest.

One day during the spring of 1914 I was walking through a certain stretch of oak woods where many of our nesting birds are found in abundance, and having from a distance sighted a Blue Jay's nest, was approaching to investigate it, when there flew, not a Blue Jay, but a Red-headed Woodpecker. The nest was eight feet up in an oak sapling and was a typical Blue Jay's but was found to contain three pure white and unmistakably Woodpecker eggs.

It must have been that the holes in the neighborhood were all occupied or possibly the bird was driven from its anticipated home when about ready to deposit, and thereby forced to use whatever receptacle it could find for this purpose. At least it is the only instance in which I have found a Woodpecker nesting in such an open situation.

Melanerpes crythrocephalus is very pugnacious and I know of two cases in which the quarrel over a nesting hole ended in fatalities. An old willow which stood in the low, wet end

of a hay field and the only suitable nesting site in the near vicinity, was the scene of many Woodpecker wrangles. There were a half-dozen good nesting cavities in the tree and one of them would be selected and enlarged for use every year. I have often watched the birds as they fought vigorously for possession of this tree; it was really impossible to tell which pair were on the offensive and which on the defensive as they were both equally obstinate. On one occasion after one of their quarrels I found one of the birds dead underneath the tree and at another time a dead bird was found in one of the holes, both apparently victims of their own pugnacity.

Aside from this peculiar nesting of the Red-headed Woodpecker I have found two other unusual sets that have not been reported in THE OOLOGIST though I have noted similar sets reported therein. One of these was a set of five robin eggs which I found on May 26th, 1906, and the other a set of three Mourning Dove's found on May 28th, 1908. One of the eggs in the set of five of the robin was a runt, little more than half the size of the rest in the set. The nest was directly back of our house and placed in a dead red oak twenty-two feet up. The Mourning Dove's nest was ten feet up and placed on a few twigs which had sprouted out from the side of the trunk of an oak.

E. A. Stoner.

Des Moines, Ia.

Notes.

On January 7th while in Cedar Island, Back Bay, Princess Anne Co., Virginia, I scared up one Sora and two Wilson Snipe. Owing to the thermometer having been down to seventeen degrees above zero previous to that date, I consider it strange to find such birds with us.

On January 5th during a trip to the extreme end of Back Bay,, Princess Anne County, Virginia, I saw quite a large flock of White-bellied Swallows flying around over the marsh. This late date for them seems remarkable owing to having had several quite hard freezes; and all insect life must have vanished some time previous.

On January 27th, 1915, Mrs. J. H. Costairs of Philadelphia, Pa., shooting from the Currituck Shooting Club of N. C., killed in Currituck County, N. C. one European Widgeon. I inspected this bird which was a male.

On January 28th, 1915, Mr. Augustine Meyer of Norfolk, Va., shooting from the Pocohontas Club, Va., killed in Princess Anne County, Va., one European Widgeon. I inspected this bird which was a male.

H. H. Bailey.

Newport News, Va.

Taking Hawks' Eggs.

The most of the Hawks are admittedly beneficial; far more so than is realized by most persons. We trust that our readers interested in making oological collections this spring will be real bird men and not egg hogs.

The eggs of the Broad-wing, Cooper's, Sharp-shinned and Goshawk may be taken without objection whenever found, and in whatever number procurable. The eggs of the other hawks should not be taken except for legitimate collecting purposes, either for the cabinet of the collector or for exchange purposes, and in most instances there is no exchange demand for the eggs of our ordinary hawks, such as the Red-shoulder, Red-tail, Swainson, and the like. There are more of those now in existence than there is demand for.

In your spring collecting, be real bird lovers not egg hogs.—The Editor.

Egg Notes.

Now is the time to arrange the duplicates for future exchanges. There is no use of exchanging unless it can be done in a way that both parties are satisfied, and the only way that will be is when each party to the trade treats the other in exactly the way that he expects and wants the other party to treat him.

There has never been a time within our recollection that there were so many collections of real value on the market. Eggs seem to be a drug and very rare ones are offered very cheap where the whole or a major part of the collection can be disposed of.

Bird Notes.

Turkey Vulture, rare.
 Black Vulture, common.
 Kingfisher, few.
 Killdeer, common.
 Red-winged Black Bird, few.
 Veriol, few.
 Mocking Bird, very common.
 Blue Jay, very common.
 Robin, few.
 Titmouse, few.
 Flicker, common.
 Cardinal common.
 Brown Thrush, common.
 Wood Thrush, rare.
 Crow, common.
 Blue Bird, common.
 Cat Bird, rare.
 It was a goldfinch.

Boyd Taylor.

Cairo, Ga.

A Black-crowned Night Heron recently lit amongst the trees in a very thickly settled portion of Galesburg, Ill. Result it stayed all day and the anxious ladies of the neighborhood are wondering if it was not a "Stork" spying out for future visits.

Back Numbers of Magazines for Sale

I have the following back numbers of various Natural History and Ornithological magazines for sale which will be sold cheap. If any of these are wanted for filling files, write me for prices, as I am sure some of them will not last long.

R. M. BARNES, Lacon, Ill.

- ASA GRAY BULLETIN, Vol. No. 1.
- ATLANTIC SLOPE NATURALIST, Vol. 1, No. 3.
- AMERICAN NATURALIST, Vol. 9, No. 5.
- AMERICAN ORNITHOLOGY, Vol. 1 No. 1; Vol. 2 No. 1-4-6; Vol. 4, No. 1; Vol. 5, No. 4.
- ANIMAL LIFE, Vol. 1, No. 9.
- AUDUBON MAGAZINE, Vol. 1 No. 9.
- AVIFAUNA, Vol. 1 No. 2.
- BIRD LORE, Vol. 1 No. 1; Vol. 6 No. 6.
- BIRD NEWS, Vol. 1 No. 2.
- THE BITTERN (Cedar Rapids, Ia.) Vol. 1 No. 1.
- THE BITTERN (Damariscotta, Me.) Vol. 1 No. 6.
- BOSTON ZOOLOGICAL SOCIETY QUARTERLY JOURNAL, Vol. 1 No. 3; Vol. 2 No. 2.
- BROOKLYN ENTOMOLOGICAL SOCIETY, Vol. 1 No. 6, Oct. 1878.
- BULLETIN MICHIGAN ORNITHOLOGICAL CLUB, Vol. 1 No. 3-4;
- BULLETIN NUTTALL ORNITHOLOGICAL CLUB, Vol. 2 No. 1.
- CANADA NATURALIST SCIENCE NEWS, Vol. 1 No. 1.
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THE OÖLOGIST.

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Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.

Awkwardness.

March 6th the Editor of THE OÖLOGIST fell about twenty-five feet out of a Live Oak tree, forty miles North and a little west of Los Angeles. He sustained a compound fracture of the Tibia, and a fracture of the Fibula of the left leg, a broken nose and a fractured and dislocated left shoulder, besides internal injuries of a more or less serious nature.

He was at once rushed to a hospital, where at this writing (April 1st) he is resting comfortably and on the road to ultimate recovery it is believed.

"The accident was due solely to a proper lack of care on our part, and no one else is to blame; only our neglect to use the ordinary safeguards and rules which have guided our climbing all our life; a carelessness for which we must pay the penalty."—R. M. Barnes.

Pileated Woodpecker.

(*Ceophloens pileatus*)

Among the Woodpeckers are found certain universal anatomical characteristics. The feet are perfectly zygodactyle by reversion of the fourth toe; tail feathers stiff and sharp, and the chisel like bill adapted for the purpose of chipping away the wood of the trees, looking for food. An arrangement of the hyoid bone of long, slender, flexible filaments extending over the skull behind, between the skin and the bone, surrounded by highly developed muscles, enables the tongue to be extended several inches beyond the

bill. The tongue is slender, pointed and thickly barbed on its extremity. The small neck compared with the size of the skull makes it impossible to invert the skin over the head, generally employed in the skinning of other birds during the process of mounting. The skull is extremely firm and solid, the bone is almost as hard and rigid as ivory. By means of the bill the bird perforates the bark and wood of the trees to reach the larvae of the insects feeding beneath it. The cutting away of the wood is done by powerful strokes of the bird's head, which can be heard quite a distance away: in the meantime the bird clings to the rough bark of the tree, while the short stiff feathers of the tail are pressed against the bark, thereby supporting the heavy weight of the body. The hole being made and the burrow of the grub exposed, the long tongue is then thrust out; the larvae or insect impaled on the barbed extremity and then drawn back to the Woodpecker's mouth.

Where the birds are not molested they return to their favorite breeding grounds for quite a number of years. They lay from three to five glossy white eggs, same as almost all woodpeckers.

In their favorite woods some old stumps show their work plainly.

The mating season of these birds is in our locality usually in April. They excavate a deep hole in a decayed tree; cutting away the wood with such force that the chips are

sometimes from four to five inches long and half an inch thick. Our immediate wooded districts being very limited it will not be long before their departure from our locality. In April 1907, Mr. Savage and Mr. Van Duzee, while strolling through the woods near Buffalo, discovered the trunk of a beach tree about forty feet high which bore the unmistakable evidence of having been the object of attack of this bird. In several places enormous hollows had been cut away extending to the very heart of the tree and at the foot of the tree was heaped a mound of chips which amounted to about two bushels in volume. The hollows were on one side of the tree, the lower one, the largest, about six inches wide extending about three feet up and down the trunk. This penetrated quite to the heart of the tree which was dead and decayed throughout a large part of its extent. Another about a foot by four inches in size and two smaller ones of a more circular shape were seen just above the whole extent of the excavation being in a surface about six feet long. The wood of the tree is practically honeycombed with the circular borings of the larvae of the horn-tail (*tremex columba*) in search of which the Woodpecker had done the excavating in question.

Realizing the importance of this specimen as showing the power of the bird as well as its occurrence in this locality, arrangements were made by the Buffalo Society of Natural Sciences to secure this specimen and preserve it permanently in our Museum. The tree stood on the property of Mr. J. A. Hutchinson, and through the efforts of Mr. Van Duzee it was cut down and brought to our rooms where it can be seen in the department of Ornithology.

Shortly after the discovery of the

tree, Mr. Savage reports that the bird was seen and allowed him to approach sufficiently near so that by the aid of his glass there was no doubt about the identification of the bird. The mate was heard calling in the woods a short distance away and was later seen and identified by him. Certain other excavations of a less extensive nature showed that they had been busy in the neighborhood for some time.

Ottomar Reinecke.

Nesting Habits of *Lawrences* Goldfinch.

Astralaginus lawrencei (Cassin), A. O. U. No. 531, is a common spring and summer resident of Los Angeles County, occurring in suitable localities from the mesas to 7000 feet in the mountains, and occasionally even higher.

A few birds remain throughout the year, but the majority migrate south and east through Mexico and Arizona, and they are rare here from November to April.

Nest-building begins usually during the last week of April, and fresh eggs are found mostly in May, although sets have been found from April to July.

Evergreens are favorite sites for the location of nests of this species; cypress, pine, and fir trees being most often chosen. They nest at no great height from the ground, generally under fifteen feet, most usually eight or ten, although I once found a nest with two eggs near the top of a pine tree fully fifty feet from the ground.

The nests are well made, composed of grasses, plant stems, and small dry leaves, well lined with feathers. They are deeply cupped and placed most commonly on a horizontal limb. The eggs, four or five in number, are easily distinguished from those of other species of the genus, being pure white. Their average size is .60 x .45.



Pileated Woodpecker on Tree —Photo by Ottomar Reinecke

A peculiarity of this species that seems to have been overlooked by other writers is that of nesting in colonies. This fact is attested by the following records from my note-books:

May 7, 1907. A clump of cypress trees near the city limits of Los Angeles. About eight pairs nesting, four nests examined contained two to four fresh eggs.

May 16, 1907. A grove of young pines in a city park. About fifteen pairs nesting, all with small young or eggs advanced in incubation.

April 3, 1908. A small clump of cypress and pepper trees near the foothills. About six pairs nesting here. Three nests examined contained five, three, and five eggs respectively, incubation fresh. Two nests not yet finished.

April 4, 1908. Nest eighteen inches from ground in a clump of sage brush on side of canyon. Four eggs, incubation commenced. This nest was near the last mentioned colony.

May 4, 1908. Three pairs nesting in two cypress trees. Incubation varied from slight to advanced.

May 8, 1909. Six pairs nesting in a small clump of cypress trees. Incubation begun.

So far as I have been able to determine incubation lasts from ten to twelve days, and the young birds remain in the nest about two weeks. Immature birds of the year are to be seen on the wing by the first week in June.

D. I. Shepardson.

Los Angeles, Cal.

White-throated Swifts.

In the latter part of April, 1913, Mr. J. B. Dixon and myself, thinking that the Swifts would surely have laid their full sets of eggs, started for the cliff we had selected for our try at them. We carried 285 ft. of rope, shot

gun, pick and small bar for prying, camera and egg baskets, as well as lunch and water bottles.

After a drive of about eight miles from home we arrived at the mouth of the canyon on the south side of which are the cliffs. This canyon is some rough, and made heavy going for me, as I was carrying a short section of ladder in addition to my share of the other equipment. It takes about an hour of good work to arrive at the base of the cliff. In the meantime Mr. Dixon with rope, had ascended by another way to the top, and as I was lying on a rock, looking up watching the Swifts in their diving and swinging around the face, he soon came to the edge of the cliff, and made fast the rope. Over it came, like a long brown snake shooting down, but failed to reach the bottom by some ten or fifteen feet. After several efforts of scrambling on my part, and heaving on Dixon's part, we finally worked to where I succeeded in getting hold of it.

During this time we had succeeded in locating several of the little black and white birds, darting into cracks and crevices and one, the nearest to the bottom, only about forty feet up, looked as though maybe, I could see, with the aid of a mirror where the nest was. With some effort I arrived at this crack and upon flashing the light into it saw a nest, also the bird farther back in the crack. The nest was empty and the bird seemed to be dead, head out of sight and wings spread out, so told Dixon that I would get the carcass out as she had gotten caught and was dead, and that there were no eggs for us. I was surprised, to say the least, when upon trying to hook her out with a wire I carried, to have her turn around and start for me. I guess if she had been a little faster she would have knocked me off the



Tree Trunk Showing Cavities made by Pileated Woodpecker

—Photo by Ottomar Reinecke

rope, but just before getting to the entrance of the crevice she turned and went up and stopped in plain sight only about six inches in.

As there were no eggs here, I moved on up the cliff to see if I could see into another place but could not; the crack was at least a mile long, from the way it started, and guess the nest was clear at the back end; so moved on to another. Had a little better luck here, and may be able to get a set here sometime.

Oh yes, there are lots of Swifts here at this place and also lots of cliffs and cracks and I guess that most of them are deep and also crooked.

On May 18, 1913, we went again to the cliffs. We started from my ranch at 4 a. m., and 7 a. m. found us standing on the brow of the cliff looking down and wondering what the next few hours had in store for us in the way of Swifts' eggs and nests. The rope was placed and I started down with my egg grabber, stiff wire and egg basket, all belted to me. The rope was 285 feet long and they would not reach clear down.

Down about fifty feet I came to a horizontal crack about four feet long, and by flashing the light into it with a small mirror, could locate three nests, one quite near; the other two farther back. But the crevice was so narrow that I could not use even my smallest egg grabber, so hooked a wire around the nearest nest and began to tear it loose. It came moving around on its axis only to prove empty. Tried the farthest one the same way and with the hold on the rope, distance, and everything, managed to drive my wire hook too firmly into the nest, and the mischief was done. Over and apart it came exposing three fresh eggs; did not save even one; two broke on rolling out of the nest, and

the other went right on rolling off the edge, and broke some 150 feet down the cliff.

Nest number three contained one egg which I broke with the grabber on account of the wire being too heavy and striking the egg crosswise. I would rather handle Hummer's eggs than Swifts'.

On down thirty feet to another horizontal crack, where one week before I had seen one fresh egg in a nest, quite close to the edge; this nest contained four. After packing nest, eggs and all, tried for nets number two in this crevice. Could not work my grabber as the Swifts made three or four turns in getting to the nest; so scratched out accumulated droppings and found the crevice to be about three inches deep. Worked my hand into it but found that I could not reach the nest, so went up to a small foothold and had Dixon tie and lower the short section of ladder opposite the crack; but the overhung swung me out three or four feet too far, so I had a time to get back where I could just touch the edge of the crack. After some strenuous minutes, succeeded in getting back into the corner so I could reach into the nest. Here I found a Swift, which had crawled back into the crack after Dixon had given her a load of shot. In my efforts to get to the nest I dislodged a small falke of rock which slightly damaged two of the eggs of a set of four, which were very nicely marked. Was down at another crevice when I heard some squeaks and went back up to find the wounded female, still alive but that was all. Packed her with her eggs and left the nest.

Looked at several other nests, from which we obtained a set of two eggs, an incomplete set, but one week before this nest had one egg in it so I think it was abandoned. Succeeded



Nesting Cliff of White-throated Swift. Chas. F. Schnack Descending. Note nesting hole at X, lower right hand corner.

—Photo by J. B. Dixon

in getting four birds, two males and two females. Made skins of them, and I would say that the males are the best developed of any bird I ever examined.

Chas. F. Schanck,
Escondido, Calif.

The Rocky Mountain Screech Owl.

The Rocky Mountain Screech Owl is said to be the handsomest of the geographical races of the Screech Owl. It is a beautiful little owl, much lighter in color than the eastern form, "the whole plumage very pale," a sort of an ashy gray. The white scapular bar is conspicuous, and on the under parts the dark shaft lines with cross bars are noticeable, becoming heavier on each side of the upper breast.

In winter I have often noticed one sitting in cotton-wood trees along the street where there is much travel of teams, automobiles, and pedestrians. Unless one were somewhat accustomed to seeing him he would not be noticed. He is usually in nearly the same place, sitting on a small projecting limb and close against a larger limb, and is very near the color of the bark of the tree. If one stares up at him he appears to be staring back. He sits in exactly the same position during all the bright light of day, never in the least changing in attitude, but leaves as soon as twilight begins and proceeds to forage for supper.

These owls have two call notes. One is the common screech owl call, best described as a screech; the other is very different, hard to describe but a sort of a rolling sound continued for a few seconds, P-r-r-r-r uttered with a flutter of the tongue, as one might say dhi-r-r-r. This call I have heard only in the early spring, I suppose just before the nesting time, beginning the latter part of February.

I suppose it is made only by the male.
Geo. E. Osterhout.
Windsor, Colorado.

Earl Moffat of Marshall, Tex., Reports.

"Last year Robins were plentiful here in this locality but this year I have not seen but three Robins all told, and as for black-birds, just one small dove this year, they were here by the hundreds last year.

Cardinals are very abundant this year, have never seen so many."

Death of Everett Hill.

It is with sorrow that we chronicle the tragic death of a fellow bird lover, Everett Hill of Whittier, California, a lad of sixteen years, while owl hunting with a school companion on the night of March 23d, in the Puente hills north of Whittier, by crashing over a forty foot precipice into Sycamore Canyon.

While walking along the edge of the cliff, Mr. Hill attempted to climb down it. The rocks crumbled beneath him and he fell. His body was found wedged between two great rocks at the bottom of the precipice, his skull and left arm fractured. He was rushed to the Whittier hospital but never regained consciousness.

THE OOLOGIST extends sympathy to the family and friends of the unfortunate young man, in their bereavement.

Golden-fronted Woodpecker.

In THE OOLOGIST, May 15, 1914, I asked for information about a set of five eggs that were named Sulphur-bellied Flycatcher.

I sent the set and data to Mr. E. J. Court, Washington, D. C., and asked him to compare it with the eggs in the National Museum. He returned the eggs and stated they were not Sulphur-bellied Flycatcher and that he



Nesting Cliff of White-throated Swift, Chas. F. Schnack
descending the rope.

—Photo by J. B. Dixon

was unable to identify them. He unfortunately lost the data in some way and to some extent lost its identity.

I never gave up hope and have at last found a man who after seeing them at once named them Golden-fronted Woodpeckers.

This man lives in Texas and knows what he is talking about and says it is a typical set of eggs.

Mr. E. H. Short saw the eggs but he failed to give me the information I desired.

I am glad I found out what they are but am a little surprised that neither Mr. Short or Mr. Court could tell me at first the correct name of them.

E. J. Darlington.

The New Short List.

In recent issues of THE OOLOGIST we ran an ad for Ernest H. Short advertising "A Corrected Edition" of the Lattin 1905 Price List. We bought one and had we seen the thing before the ad. appeared, it never would have been admitted to these columns. This "Edition" is nothing more or less than the 1905 list with a few more or less unintelligible pages of very poorly printed new matter bound in the front, and some few name changes pasted in through the catalogue.

We very much doubt if our friends to whom it is said in the text, the compiler of this "corrected edition" is under obligations for assistance in producing it, will be proud of having their names associated with such a production.

Mr. Short should not have attempted to foist such a thing on the bird men of the country. It will not pay in the long run. We all know we need a new price list, but we need a real one, and that we will have before so very much longer.

Albinos.

On November 23rd, 1914, two partly Albino Northwestern Red-wings were observed about two miles south of Tillamook. These were in company with a larger flock of Red-wings and Brewer's Blackbirds.

I collected on December 18th, about six miles southeast of town, a singularly marked Alaskan Hermit Thrush, the chin and fore part of the head being pure white.

A female Brewer's Blackbird was collected from a flock on January 12th, 1915. The tail, back and underparts of this bird were spotted with white.

Alex Walker.

Hemlock, Oregon.

There are measurements of three Red-headed Woodpecker's eggs which I gathered at Richmond, Ky., in the spring of 1909. They are 1.74, .92, .70, 79 and 63. You will notice the great difference in the amount of size.

I have never seen or heard of such an extreme difference before in eggs. All three were taken from the same nest in a hollow limb and the parent bird observed to fly out.

Byron C. Marshall.

The American Merganser. (Merganser Americanus)

This is the largest of the Mergansers, commonly called the Sawbill, Sheldrake, Goosander and Fish Duck. In April soon after arriving from their winter quarters, he accompanied by his mate, start looking for a suitable nesting site in some hollow tree standing in the water (the trees of which have been killed by the rising water each year in early spring), which is usually in some secluded spot in a bay bordered by heavily timbered woods.

They are very noisy birds at this time with their loud squaking and I have often seen them early

in May light on the dead limbs or at the top of a hollow tree which they never do at any other season of the year. The male is a beautiful fellow with a metallic greenish black head and pale salmon neck merging to white on the breast. He is easily distinguished from his mate, even at a distance by her colors of sombre brown and grey.

In June and July small flocks numbering from six to nine can be seen on Lake Muskoka where they are very plentiful. They are expert swimmers and can swim quite a distance under water catching small fish with their serrated bill, using their wings as well as their feet to propel them along. They often swim up rivers and I have been rowing up when suddenly I chanced on a flock of them, moving my boat to one side of the river and keeping very still, they quickly swam past me down the river, they being not much more than an oar's length from me; how I wished I had a camera at the time. They would have made a good subject.

Late in September one day I had been out rowing and as it was getting dusk that evening I sighted what looked to me like an old stump root floating on the surface of the water. As I rowed nearer I discovered that they were ducks, five of them standing on a flat rock about a quarter of a mile off shore. A few minutes later four of them had each tucked away their heads under their feathers, while one stood on guard. Rowing closer he gave the alarm by a quak and they flew away in the darkness. So I perceived they must have a sentinel to watch over them.

In the fall when wounded and pursued they will suddenly submerge themselves leaving only their bills exposed in order to breathe, looking like sticks floating on the water. I have

never noticed any males in the fall, they may be entirely migratory while the females are not.

George E. Gerald.

Rosedale, Toronto, Canada.

The Blue-Gray Gnatcatcher.

FAMILY: Clyviidae.

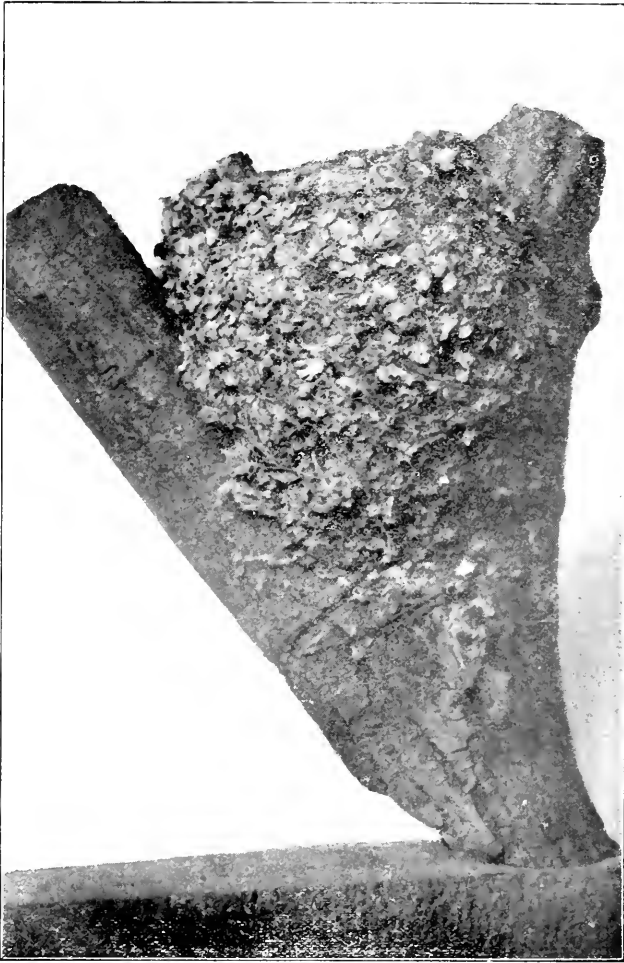
SPECIES: *Polioptila caerulea caerulea*.

DISTRIBUTION: The middle and southern portions of eastern United States south in winter to Cuba, Bahama Islands, and Guatemala; rarely north to the Great Lakes, southern New York, and southern New England. Breeds throughout its United States range, and winters from South Atlantic and Gulf States southward. Breeds principally in the Carolinian zone.

THE BIRD: The blue-gray gnatcatcher is a tiny bluish-gray bird, having a long tail and a rather slim body. In general habits it is said to resemble the kinglets. During the past twelve years it has been my pleasure to study a number of these little birds, and in this time many—upwards of 80—nests have come under my observation.

The gnatcatcher arrives in southern Pennsylvania usually by April 15, varying, of course, according to the weather conditions of the season. In warm springs I have generally seen the birds by April 12, while in the cooler seasons they arrived considerably later. The birds remain with us until September when they depart for the South.

Upon their arrival here these bits of bird life repair to a chasm section of some woods, and a place once selected is resorted to year after year. I noted one pair of gnatcatchers which nested in the very same crotch for several consecutive seasons. The larger woods,—several acres in extent,—may contain as many as five or six pairs



Blue-gray Gnatcatcher's nest showing preparation for cabinet specimens

—Prepared and photographed by S. S. Dickey

of the birds—during the past season I noticed fully six pairs in a woods of some ten acres. Not always are the birds found in woods but frequently resort to groves of oaks, hickories, etc.; small clusters of trees or saplings; and rarely to apple orchards. At times I have known the birds to make their homes in rather isolated trees, standing some distance from either wood, grove, or thicket. Prior to nest building the gnatcatchers flit about the higher branches of the trees where they secure the bulk of their insect food. At times they descend to the lower branches and the underbrush, where they glean harmful insects from the foliage.

THE SONG: Gnatcatchers are not incessant singers; however, they frequently utter a faint sweet song, resembling more the song of some insect than that of a bird,—this song is quite low and one must be near to the singer in order to hear it. The usual and frequently uttered note of the birds is an insect-like and not especially pleasant one.

Food: The food of the Gnatcatcher consists almost entirely of small winged insects and larvae—belonging principally to the orders Hemiptera and Diptera. Spiders (arachnids) are also devoured. The gnats and winged mites they secure by darting about the foliage—often in the flycatcher manner.

NEST AND EGGS: The nest building of the gnatcatcher begins early in April, my earliest record for a started nest being the 22nd. The place chosen as a site may be either an upright fork or a horizontal branch with a forking protection branch above it. This latter situation is the usual one; it seems to be preferred on account of the protection it affords from heavy rain storms. The site varies greatly as to height from the ground. Seven

feet was the lowest nest found by me, and sixty feet the highest. The nests are usually placed well out from the tree trunk, ten feet probably being the average distance from the main stem. I should judge that twenty-five or thirty feet is the ordinary distance from the ground.

Both male and female birds assist in nest building. The materials chosen vary greatly,—fine bark strips,—either of grape vine or inner tree bark—bits of fine dry grass, both brown and gray leaf down,—principally from the under surfaces of leaves—and some dandelion or thistle down. The gnatcatchers weave these materials about the chosen branch and coat it on the outside with spider webs and lichen as they build upward. In the nest lining I have found ordinary soft leaf down, some small feathers, pieces of lichen exposing the under surfaces, and occasionally some horse hair. The measurement of a typical nest are: $2\frac{1}{2}$ inches high by $2\frac{3}{4}$ inches wide, outside; $1\frac{1}{2}$ inches deep by $1\frac{1}{4}$ inches wide, inside. The nest of the blue-gray gnatcatcher is, to my mind, the most attractive of North American birds' nests; it is always deeply cupped and so beautifully coated with lichen that it resembles closely the branch upon which it rests.

The trees chosen for nest location are of several kinds. Most of the nests that I examined were built in white oak trees,—many others were in such species as red oak, walnut, white ash, American elm, yellow locust, sugar maple, sycamore, and apple.

The full laying of eggs is generally five, four predominating should the repulsive cowbird (*Molothrus ater*) add an egg of her's,—this is not a rare occurrence either. During the cool, or especially wet, years three eggs often complete the clutch; however, five eggs must be considered the



Blue-gray Gnatcatcher nests showing preparation of cabinet specimens

—Prepared and photographed by S. S. Dickey

usual set, should nothing disturb the birds.

The earliest date upon which I found a full set of eggs was May 5; the latest May 22; the last date undoubtedly being for a second nest of a pair that had been disturbed upon the first attempt at nesting. Sets are usually completed by the 10th. Each season many nests are either blown out by high wind storms, or water soaked by excessive rains and deserted. As an instance of this, I cite my note of last season. At that time I located upwards of forty nests and but twelve of them remained after a severe wind storm swept our county. I once found a nest of the gnatcatcher built twenty feet above the ground in an upright crotch of an American elm tree. I reached up and removed the nest, and, finding that it held but four eggs, I replaced it securely in the crotch. Upon returning to the place in a few days I found the bird patiently sitting upon the four eggs. This case, however, must be considered quite exceptional, for usually nests disturbed, even touched, will be deserted. The birds also desert their homes in case they become soaked with rains. I have several times noticed birds moving an abandoned nest and rebuilding it in a new site.

My earliest observation of nest of the gnatcatcher was in May, 1903. The first nest held five slightly incubated eggs on the 10th. It was built 25 feet up in a fork of a butternut tree that stood on the border of a small wood that lay on a hillside; one side of it run a valley. The second, and last nest for the year, was found on the 13th and held five fresh eggs. It was build on a horizontal branch of a white oak tree which stood in a small woods on a hillside. An exceptional nest, found in 1904, was built just seven feet above the ground in an

upright crotch of the branch of a fallen yellow locust tree. This tree lay at the lower border of a large woods and was surrounded by saplings and briars. The bird laid but three eggs and started to incubate them. Since finding the preceding nests I have examined a number and of course the situations varied widely. Nests were mostly located by watching and following the birds during the nest-building time. The average measurements for a number of eggs examined by me is: .56 x .43 inches. The largest—.60 x .47; the smallest—.52 x .41. The eggs are of a light greenish-blue color and are speckled or wreathed with reddish-brown.

S. S. Dickey.

Night Hawks and Flying Ants.

One day toward evening a few summers ago, as I was walking across the fields, I noticed a number of Night Hawks circling about a ditch. They appeared to be getting an early supper and I thought I would see what was the bill of fare. On getting quite close to the place I noticed that flying ants were rising from the ditch bank. They were the queen ants which had hatched out and were flying away, according to the life history of ants, to deposit their eggs in some suitable place, and start another ant hill. They are a nuisance in the fields for nothing can grow near an ant hill.

I would see an ant rise a few feet in the air then a night hawk would sail along its path from behind and the ant was gone. I moved closer and sometimes the ant was so near me when the night hawk came along that I could hear it strike the mouth of the night hawk. I do not think I ever saw a night hawk miss an ant as it circled by. This is only another instance of the benefit of birds to agriculture.

Geo. E. Osterhout.

Windsor, Colorado.

Notes.

While reading over my bird notes, find the following out of the ordinary notes.

1909, April 17. Downy Woodpecker, seven eggs, nest fourteen feet up in locust tree on river bank in woods, St. Marys, Kansas.

1910, July 31, Blue Bird, four eggs in top of three inch pipe of gas well in prairie pasture, eggs partly incubated: June, found wasp case of mud in pipe which had a Blue Bird egg incorporated in it, nest was probably deserted when wasp took possession. Above from Bartlesville, Oklahoma.

1911, May 14. King Rail, twelve eggs, fresh nest of grass, well cupped in bunch of grass in slough about four inches of water. Found these birds fairly common. St. Marys, Kansas.

1912, Vinita, Okla., April 27th, after heavy hail and rain found three dead Grass-hopper Sapprows.

April 13, first Cow-bird's egg, in Red-bird's nest along roadside.

August 8, Dickcissel, four eggs, nest fourteen feet up in persimmon tree.

August 25, Red-bird, three young about a week old, nest in small tree along creek.

1913, Copan Okla., February 28, saw a White Winged Junco in woods feeding with other Juncos.

April 24, Yellow Crowned Night Heron building nest; April 30, four eggs.

July 22, Field Sparrow, three fresh eggs, nest in bush in weedy field.

1914, Copan, Okla., March 7, Crow, three fresh eggs.

March 23, Red Shouldered Hawk's nest, four eggs laid on top of old squirrel's nest, scarcely any nest building, just sunken in a little on top, would never have found it but Hawk flew from tree when I passed it. The nest was in fork of tree near main

trunk partly built in grape vines; tree was in woods near farm yard.

May 15, two Chats nests, five eggs each.

May 18, Chat nest, five eggs.

June 17, Meadowlark, six young.

June 17, Redbird nest three eggs and some of the Yellow-billed Cuco, nest fourteen feet up on small branch of elm tree on creek bank. Baltimore Orioles were not seen in this part of Oklahoma, (Salina, Kansas.)

July 31, Dickcissel, seven eggs, fresh nest in alfalfa field.

Albert J. Kirn.

The Copy Wail.

As our readers will note elsewhere in this issue, the Editor of this magazine is lying in a Los Angeles, California, hospital, practically helpless, as the result of following his hobby; his injuries having been sustained while in the act of examining the nest of a Plain Titmouse in a huge Live Oak tree. This magazine is therefore being compiled by one unaccustomed to doing such things, and one who is totally unable to make up bird notes of her own that would be fit to publish in any magazine.

It required 275 inches of typewritten matter and six plates to make up this issue. You will therefore see that it takes no small amount of copy for one issue. We need good, live, interesting articles unaccompanied by illustrations to get up the next two issues, which the Editor's condition will not allow his attempting to do.

PLEASE COME TO THE RESCUE.

The Editor's Condition.

At this writing (April 1st) Mr. Barnes is still confined to the hospital in Los Angeles, though he is slowly getting better and his ultimate restoration to health is confidently expected. His injuries were very severe and his escape from death almost a miracle.

THE OÖLOGIST.

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Alfred Cookman and small lad, Roy Fuller, in the Willow Bottoms,
Dominguez Ranch, Los Angeles Co., Calif.

—Photo by Cookman

Home of California Cuckoo Discovered

By Alfred Cookman,

Deputy Fish and Game Warden for
Los Angeles County in
Southern California.

A discovery of more than passing interest was made last month by Prof. L. W. Welch and the writer. For many months the peculiar call of the California Cuckoo (*Ocozyus americanus occidentalis*) has lured the devotees of outdoor life, into by and forgotten paths, across the sloughs, through the fields and into remote sections of this southland, only to meet with baffling defeat. The secretive habits of the rare and interesting species of the feathered tribe has been an endless source of delight to the writer, who is sometimes accompanied by friends of like turn of mind, but still oftener, he goes alone on the trips of investigation.

We had been convinced for a long time that the carefully concealed nests were probably located in or around the "Dominguez Rancho" in the willow-bottoms, four miles north on Long Beach in Los Angeles County, Southern California. For several months previous to the discovery of the Cuckoo in the Rancho, we had investigated several prominent Bird Retreats in this section of the country and also made several excursions into Orange County on similar trips of investigation. The itinerary of which was to discover where the California Cuckoo builds its nest.

Nigger Sloughs, seventeen miles south of Los Angeles was one of the important localities that we were privileged to visit. We made several trips to this place. In Orange County, Hog Island in the Sunset Beach Gun Club Reservation, Bolsa Chico, Lomita, Camut and other Reservations are some of the fields we have visited. They are not far distant from the "Dominguez

Rancho." Thousands of birds congregate here to bathe in the cool water and feed on marsh insects and crustacea. No Cuckoos have been observed in these districts.

The conditions being favorable on the 28th of July, 1914, the search was continued, and after being skillfully lured here, there and yonder, by the natural instincts of the mother cuckoo, who futilely attempted to beguile the investigators from her realm. After hours of patient following across the marshy fields and the swales of the "Rancho," in a most protected and seemingly impossible retreat, a large nest composed of loose sticks, lined with leaves and catkins situated in a cottonwood tree, twenty-three feet up, was discovered. A shout of joy burst from our mouths. We made several attempts to climb to the nest, but every trial was unsuccessful. The tree would not hold our weight. We could watch the female approach the nest with food in her bills. We heard distinctly the hungry cries of young birds in the nest. A tiny head was observed rising above the leaves. It remained visible for a few seconds and then disappeared. That was about all that was apparent in the gap; a bit of fledgings awaiting the bills of their mother. The strange pleading notes of the birds did not deter Prof. Welch and the writer after knowledge from a thorough investigation, because the discovery is one which ornithologists have been seeking, and the nesting habits and the period of migration has been a closed book to lovers of bird life.

The writer has made several visits since to the nest, and has been successful in obtaining some photographs. They breed extensively along the willow bottoms of the interior valleys of the state. Mrs. Eckstrom says, "As a nest-builder, the California Cuckoo is



Willow Slough North of Long Beach, Calif., where Alfred Cookman Found the California Cuckoo Nesting

—Photo by Cookman

no genius; or if a genius, he belongs to the impressionist school. The nest is but a raft of sticks flung into the fork of a bough." We find that Mrs. Eckstrom's description is quite right and that the California Cuckoo's nest is indeed so frail and so loosely put together that one may see the eggs or young from underneath.

As we approached the nest, the mother would ruffle her feathers until the usually sleek, slender bird seemed to be bristling with rage, her head extended on a level with her body and her long tail slightly elevated. She would watch us like a hawk, she would not desert her post, nor did we ever force her to do so. The California Cuckoo lays from three to four eggs. They are glossy light bluish green; paler in the incubated than in the fresh.

The sound of the male cuckoo could be heard far into the night, if the moon lighted the willow bottom, during the day it floated through the trees like a wandering voice.

Mourning Dove Nests.

September is a rather late date for nidification with most of our birds. September, 1908, found me in the field, not expecting to find eggs but idly visiting some of the old and deserted nests which my bird friends of the preceding spring had vacated some two or more months ago. One nest, a Blue Jay's had contained on June 1st, four freshly laid eggs. The young jays had left of course by this time but my arrival at the tree proved the nest still in use. A Mourning Dove was seated thereon and my climb of eighteen feet up the white oak disclosed

her two white eggs. Further inspection showed them to be highly advanced in incubation as one would expect at this season of the year.

It is not an uncommon trait for the Mourning Dove to appropriate the nest of another species for its own use. An instance similar to the above I experienced in connection with a Robin's nest. The Robins had build their nest eleven feet up in an apple tree and by May 4th had deposited the usual four blue eggs. On May 14th the eggs were hatched and the young birds successfully reared. On the following June 1st, I found the same Robin's nest occupied by a Mourning Dove covering two eggs of her own. Apparently the interval between the departure of the last young Robin and the "moving in" of the dove was very short in this case.

Other instances of the above I have observed as follows:

May 13, 1909, two Mourning Dove eggs in last year's Robin's nest, eight feet, box-elder.

May 21, 1909, two Mourning Dove eggs in old Brown Thrasher's nest.

May 6, 1914, two Mourning Dove eggs in old Brown Thrasher's nest four feet in Hawthorne.

May 29, 1914, two Mourning Dove eggs in old Brown Thrasher's nest, nine feet in vines.

Sometimes the Dove will palce a few additional sticks in the bed of the other nest. On several occasions I have found her nest resting on the top of an unused gray squirrel's nest of dry leaves in the fork of a tree. The usual set is two but I have found one nest containing three eggs (May 28, 1908) as has been previously reported in this magazine.

The nest is small and slightly built of slender weed stalks and rootlets and is usually placed at low eleva-



Dominguez Waterway, Los Angeles River, Los Angeles Co., Calif.
Home of the California Cuckoo

—Photo by Cookman

tions. Out of a hundred and fifty nests the highest I have found was twenty-eight feet, in the top of a willow.

The bird is also commonly called the Turtle Dove in Iowa.

E. A. Stoner.

The Indigo Bunting in Northern New Jersey.

In the northern half of New Jersey, especially in the Upper Passaic Valley, this beautifully hued bird is without doubt the most often met with of all the feathered denizens of the old fields and bordering hedgerows and brambles. In fact, from its arrival with us in early May until the moulting season commences in early August, the beautiful ditty of the male is perhaps the most often heard during each day from the tree tops and other conspicuous perches near where his rather dingy and sparrowlike mate has secreted her nicely woven cup-shaped home and attends to the domestic duties of rearing and providing for their progeny.

Each day as the sun reaches the zenith point and its heat is most intense, not a whit cares this beautiful songster as it seems to the writer that the warmer and more sultry the day, the higher arises his spirits and his songs are uttered with greater zest and increased vigor.

During the breeding seasons for the past decade and a half I have examined many nests and have watched their habits about the nest repeatedly and have learned many interesting phases of their homelife which have been real revelations to me. However, two nests which were found during the summer of 1914 at Sager's Pond at Haskell, Passaic County, on the 15th and 19th of June, held forth some unusual features and the following is a brief sketch of the happenings of the homelife of these four birds and their offspring.

On June 10th of this year shortly after sunrise I found the first pair gathering nesting material and flying with it to a small clump of blackberries bordering on the pond. I watched them for probably an hour to be sure of the nest's exact location as the birds in approaching the site used various entrances in the clump, seldom going more than once in the same way. On investigating found the nest placed in a fork of the blackberry about four feet from the ground. This nest the birds continued to work on during the whole of the day and about half of the following day. About this time a pair of Maryland Yellowthroats also adopted the site as their future home and began building a nest about ten feet from the Buntings. The Buntings resented this intrusion very much and left their half completed structure and flew off about two hundred feet and commenced anew to erect another nest. This one they completed on the 15th and by the 20th the set of five pale bluish eggs was complete. The period of incubation consumed thirteen days and was performed wholly by the female, the male being seen near the nest only twice during the thirteen days. The young of this brood progressed very rapidly under the careful feeding of both of the parents and left the nest eleven days after emerging from the shells. On the fourteenth day two of the youngsters fell prey to a prowling black-snake and on the fifteenth day another of the young birds was found dead having apparently broken its neck in attempting to fly. The other two grew to a stage when they could care for themselves and roved about with the parents until the 20th of August at which time the whole group disappeared from the vicinity. This brood was quite different from the other brood in that they always were to be found

in the vicinity of the nest from the time they left the nest until they disappeared I rarely finding them more than fifty feet from the site.

The second pair was observed first gathering nesting material on the 15th and carrying it to a clump of bitter-sweets about fifty yards from the site of the deserted nest of the former pair and on the 19th the nest was found complete and contained a set of four eggs. The incubation of this set was performed jointly by both parents, the female, however, devoting about three quarters of the twelve days, the period of incubation. In the first brood the male brought one-half of the food to the nestlings whereas in the case of the second brood the male made on an average of one visit to the nest to eight of the female and after eight days had elapsed rarely if ever visited the nest and the female provided the youngsters with the food. This brood remained in the nest two days longer than the others, or a period of thirteen days.

After leaving the nest the young remained about the homesite for five days and then were to be found daily along the edge of the pond with the female until the 14th of August when they all disappeared. One of the young of this brood developed numerous indications of albinism as it grew and when the family left the neighborhood this specimen had a number of white feathers on the back and underparts.

The female of this latter brood had considerable trouble with her neighbors the Yellowthroats and was found in frequent noisy conflicts with both of the adult Yellowthroats.

The eggs of these two broods averaged .74 x .54, and the set of five had one egg which measured .77 x .48. This latter egg was considerably lighter in color than the others and was the first to hatch.

My observations for the past fifteen years have proven the average date of arrival of this species in this section of New Jersey as May 15th and its average departure August 28th. The earliest one to arrive was on May 7th, 1906 when five adult males put into appearance during the early morning, and the latest departure was on Sept. 7th, 1912 when one adult male was found at Bloomingdale about one mile to the west of Haskell.

Louis S. Kohler.

Warble Copy.

Since THE OOLOGIST has come under the present management, we have always aimed to give the June issue over exclusively to the Warbler family. No doubt this is the intention of the Editor for the present year, and he would appreciate it if the subscribers and readers would help to make it an interesting number by sending in Warbler copy. Our readers will be glad to read what YOU have observed regarding these dainty little songsters.

The Yellow-Nosed Albatross.

(*Thalassageron culminatus*).

The Albatross is a deep-sea sailor of the highest order. With the skill of a master mariner he can "steer by the wind" or "run before it," as the case may be; he can "wear ship" or "tack her" as gracefully as any deep-sea captain ever swung around his "three sky-sail-yarder." In fact, if one watches his maneuvers in the air and compares the different parts of the bird's body with the different parts of a ship's rigging, allowing his long bill for the jib-boom, his head and graceful neck for the jibs, his wings for the main-yards, and his tail for the spanker, the observer will readily admit that the Albatross knows in his own way, as well as any sailor, the significance of the nautical terms "rise tacks, sheets' and 'mainsail-haul".

A sort of a mutual affection exists between the sailor and the Albatross. This may be called "true friendship," or according to an old superstitious belief current among the sailors, it may be something more than mere friendship. The fable gives it, that the spirits of the sailors, who get drowned in the southern seas, will after a reasonable time, reincarnate, and become Albatrosses. Whether old sailors are basing their thoughts on this belief or not, I will not venture to say, but I know, that they show a certain amount of sacred reverence for this winged "King of the Ocean," and often strictly object to its killing, while young, thoughtless fellows often catch them just "for the fun of it." It is very easily caught with a hook and line; a six-inch spike bent into the shape of a fishhook, with a piece of pork for a bait and a long, strong line is all that is necessary and these birds can be pulled on board the ship by dozens.

Although a number of years has passed since I bid my last adieu to the Albatrosses in the Southern Atlantic Ocean, yet I remember them as well as if I had rounded Cape Horn with them only yesterday. Their constant companionship on a long voyage certainly does away with the monotony and when traveling southward from the tropics, the sailors generally look forward to the time when the Albatrosses will come to meet them and will start to follow their southbound ocean freighter.

The most common one of all the varieties is the Yellow-nosed Albatross, which, according to some information, has once been found in the Northern Atlantic, in the Gulf of St. Lawrence, and has thereby gained himself a place among the birds of North America. In the southern latitudes he is common around the entire globe from,

say, the 40th parallel southward. The length of his body is about three feet and the expanse of wing from eight to nine and one-half feet. His long, tubenostriilled bill is yellow, feet pinkish-yellow; underparts and rump are white; upperparts in some birds slate-gray, in others more brownish. It is probable that the birds with brownish backs are young ones. The Yellow-nose is an ocean-scavenger; all the slops that are thrown over board from a ship are cleaned up by a flock of these birds, as if they were the best of delicacies.

The Sooty Albatross (*Phaebetria fuliginosa*), which is less numerous, often follows a ship in company with the Yellow-nose; but as he is smaller and not a very attractive bird, he is to a certain extent overlooked and is not received on board a ship with the cordiality that is bestowed on the white-bellied variety.

The sailing ship generally keeps at a respectable distance from the isolated islands in the southern seas, where these great birds are having their breeding grounds. There are nevertheless several groups of islands that are almost in a direct highway of all the eastbound sailing ships. Such islands are South Georgia, Tristan d'Acunha, Crozet Islands, Kerguelen, Auckland and Antipodes Islands. All these islands, except Tristan d'Acunha, are scattered around the entire globe on or about the 50th parallel south. The eastbound ships generally pass these groups within, say twenty-five to one hundred miles. Near these islands the Albatrosses are, at all times, much more numerous than at other points in the ocean. But for all that there is always a number of Albatrosses that will follow a ship for weeks and weeks, without taking any notice of an island that may be only twenty-five miles away.

Many years ago, while "Running the eastern down" in a Liverpool clipper named "Loch Cree", one of the apprentices, with the permission of Captain Achard, marked two Yellow-nosed Albatrosses by tying a red ribbon around the neck of one and a blue one on the other. This was done at the longitude of Cape Town, latitude 45 South. The birds were liberated after they were marked. Their mates first went for the two decorated birds with a perfect rage and were going to tear the ribbons off in spite of everything, but, seeing that it was useless, they finally gave it up and left the two birds by themselves. One of these birds followed us only a few days; it evidently took another east-bound vessel, (or the ribbon may have fallen off), while the bird with the red ribbon, together with many unmarked ones, followed our old steel clipper for several weeks eastward, until we passed Tasmania and took a new northerly course to Brisbane, Queensland. Then she left us as well as all the rest of the flock, evidently taking after some southbound vessel, which, after getting far enough south to catch the westerly winds, would "square the yards" and sail eastward towards South America. It must be mentioned here that only few vessels in those latitudes will travel westward on account of the heavy gale always blowing from the west. For instance, if a ship sails from New York to Australia, she goes out around Cape of Good Hope and returns from Australia to New York around Cape Horn. She may call at only one port in Australia and yet will travel around the globe in order to do it. Ships returning from East India generally come back around Cape of Good Hope, but while "homeward bound" do not go far enough south to be encountered with these westerly gales, and will keep as near

South American coast as is possible, often sighting land at "the Cape." Ships going from the Atlantic to the west coast of America do go around Cape Horn, but as soon as they have rounded the Cape, they will head toward the tropics, so that they do not bring the eastward drifting Albatross very far back westward. Again, the ships sailing from the west coast of South America to Australia travel westward, but do not go far enough south to meet the Albatrosses. These ships follow the "southeast trade-winds" between the 10th and 30th parallel south.

I have mentioned these few "nautical" facts, just to explain to the reader why fully nine-tenths of the ocean travel in the Albatross latitude is in the easterly direction. Consequently the Albatrosses, while following ships, are most of the time following an east-bound vessel. After they leave one, they will commence to follow another, just to sail eastward again. From the above anyone can gather up a conclusion, which hardly requires substantiation, that the Albatrosses in the course of their long-life-time, travel around the globe an unaccountable number of times. It is a record that only an Albatross can hold.

The Yellow-nose is very easily tamed aboard of a ship. It is not able to take wing from the decks and can therefore be left at liberty to walk about the decks as he pleases. He generally has a vomiting spell as soon as he is pulled on board. Some call this "seasickness," but I think it is the result of being rather roughly handled when pulled up with a spike-hook. However, he soon gets used to the ship life and fares fairly well, as long as the ship remains in the cold latitudes, but will die with the best of care as soon as the ship enters the tropics.

With the Albatross, same as with the Eagle, there is a certain amount of elasticity in the tape line which some are using in measuring the expanse of their wings. Some folks, who possibly have not been personal observers, claim that some Albatrosses measure as high as fourteen feet between the tips of the wings. I have never seen an Albatross that would even measure fully ten feet between the wingtips and I have seen some of the largest birds caught, and have personally measured dozens of them, besides having spent years of my life in the Albatross-latitudes of the Southern Seas.

Ernest S. Norman.

The Editor's Condition.

The Editor of THE OOLOGIST leaves California for his home this evening (May 3d) and will arrive here on Thursday. He will be glad to be home again after so long an absence, and the readers of THE OOLOGIST are no doubt pleased to hear that he has recovered from his serious accident sufficient to travel.

An Unusual Nesting Colony.

During the Spring of 1914 at Bloomfield, New Jersey, occurred what is probably the most interesting and unusual association of birdlife that has ever come to my attention.

In a small swamp at the southern end of the town where the chestnuts have all been killed within the past four or five years, for several seasons past the Flicker and Downy Woodpecker have been excavating nesting cavities in the dead branches and trunks of these trees, and in one dead trunk there are four of these cavities, a large one near the top and three smaller ones below, and all within a space of six feet from the lowest to the uppermost.

On May 10th a pair of Sparrow Hawks established themselves in the large cavity at the top and began arranging a home and succeeded in rearing a very noisy and boisterous family of three young hawks.

In the cavity about two feet below them a family of House Wrens were reared to maturity, and in the two lower cavities two families of Starlings were reared.

The very unusual part of this queer association was the fact that although the hawks above preyed continually on the nests of three pairs of Song Sparrows, a pair of Bluebird and a pair of Field Sparrows in the near vicinity, not leaving a single young bird of these broods to live, still the young of the wrens and starlings were left undisturbed and careful watching failed to detect any indications of depredations of the hawks on their fellow tenants of this stump.

L. S. Kohler.

The Interesting Magpie.

The year 1913 I was located in Northern Colorado. To an eastern bird lover the country afforded many interesting studies, the most fascinating of which was the American Magpie. This was probably due to the bird's striking appearance, noisy mischievous nature and the many opportunities to study them. In habits he is both a rascal and a clown, inquisitive, yet wary and suspicious, handsome, but ill-bred. They destroy other birds' eggs and torment cattle by picking any raw sore they may have on them. When talking to ranchmen they had often informed me of this disgusting practice of the bird. One fine morning however, I had the interesting experience of seeing two adult Magpies which were determined to have fresh beef for breakfast. The victim was a large steer who, with tail

curved over his back was making every effort to escape the persecutions of the two rascals in black and white.

We all remember the story in the old reader about the Magpie teaching the other birds how to build nests, and indeed she would prove an able instructor; so thoroughly has she mastered the art of nest building. This is from a standpoint of utility however, for beauty of design and workmanship has not entered into her labor. The nest is a large, coarse, balloon-shaped affair; some times much larger than a bushel-basket. It is composed of coarse and fine sticks and twigs inter-woven into a compact mass. This is lined with mud, dry leaves, small twigs and rootlets. Nests are used for a number of years, being repaired each spring.

An investigation of old Magpie nests often proves profitable to the collector, for it is not unusual to find them occupied by owls and the smaller hawks. In every case noted where Magpie nests have been used by other birds, the top of the nest had fallen in from decay and the nest of the new tenant arranged on top.

To give some idea as to the number of nests which may be found in a small area, I with a friend located 71 nests one December day on a two mile walk up the Puder River. Most of these were placed in cottonwood trees and sometimes as many as five nests were found in a single tree. The lowest nest was in a stunted willow and could be easily reached from the ground, the highest was forty odd feet up in a giant cottonwood.

Business duties held me close to Greeley, Colo., during the nesting season, but I found time to locate seven nests which looked good. The following Sunday I returned to them but found I was too early as the nests held from one to five eggs each.

The nest is so constructed that the hand must be inserted to ascertain the contents. This proved disastrous, for when I returned for complete sets, the eggs in every nest had either been broken or removed.

Like most birds the Magpie has his good points. He is beneficial as a scavenger and eats many insects and seeds which are detrimental to the interests of the farmer. Indeed "Sunny Colorado" would be just a little less inviting if it were not for the ever present Magpie.

James B. Carter.

Early Arrivals for Spring, 1915.

In addition to one Meadowlark and three Grackles that have stayed around my home town all winter, I find the early birds more anxious than common, to get back to their northern homes.

After two warm days February 12-13, three small flocks of Canada Geese passed honking over the village, northern bound.

On February 10th our first Robin appeared, carolling in a sort of timid, half-apologetic way. Bluebirds however accepted the challenge and three separate "sialis" have entrained at our 40th parallel station.

Still another sign that an abnormally early spring is down on the calendar or else the birds have lost their intuition.

A little party of eight Cedar Waxwings alighted in my hard maple Saturday evening, February 13th, just an evening ahead of the stipulated mating time of Valentine day. They squeaked for half an hour like a job lot of oil-needing wheel barrows—then leaped as one bird and wheeling sharply disappeared northward.

Isaac E. Hess.

Philo, Ills., Feb. 15, 1915.



Nest and Eggs of Western Goshawk in Lodge Pole Pine, Montana.
—Photo by Earle R. Forrest.

The Nesting of the Western Goshawk.

During the spring and summer of 1913, I was located at a U. S. forest service camp in the Big Hole Basin, Beaverhead County, Montana. We were on the south fork of Thompson Creek in the Continental Divide Range. The mountains were covered with thick forest of Lodgepole Pine.

On June 1st I found a hawk's nest in the top of a small lodgepole, about thirty-five feet from the ground. The old bird was on the nest, but when I struck the tree with an ax she flew off, uttering shrill, sharp cries unlike those of any hawk that I had ever heard before. She lit in the top of a tree nearby, making a fearful racket. In vain I tried to identify her, but I had never seen any of her relatives before.

I decided to investigate the nest and so started up the tree, paying no further attention to the hawk. When I was about half way up something struck me a blow on the side of the head, which dazed me for a moment. It felt as if someone had hit me with a club. It was the old hawk. Later, when I reached camp I found that she had cut a deep gash, which extended from just above my left eye across my temple and ear. I was greatly surprised for I had never previously encountered any of the hawks that would actually strike a man while climbing to their nests, although they often make a great fuss. I broke off a dead limb to use as a club if she should try it again. The old bird circled around and came at me once more from behind, but this time I was on my guard. She came straight at my head with the speed of an arrow, but when she saw that I was waiting for her she did not strike me, flying to one side when within a few feet of me. She repeated this several times, until I had reached the nest.

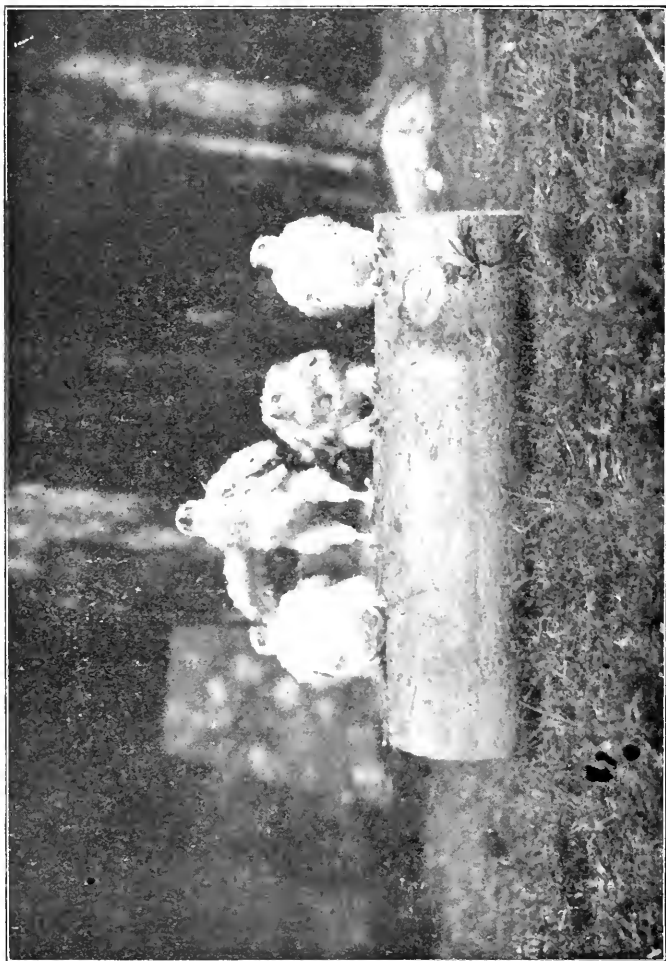
The nest contained four young about

three or four days old. I did not disturb them at that time. Later, I identified the adult as the Western Goshawk. I finally shot her thus making the identification positive. The nest, which was very bulky, was composed of sticks and lined with twigs. It was built in the crotch formed by three limbs at the very top of the tree.

The nest was about one-half mile from camp, and I visited it quite frequently. Only once did I see both parent birds there together, and that was one evening about six o'clock. No matter at what time of the day or how often I went, there was always one bird on guard. She seemed to recognize me and to have a special grievance against me, for on several occasions when I was close to the nesting tree she flew at me and came within a few feet of my head. I believe that she would have struck me had I not been watching her. Several of the boys from camp were near the nest at various times, but she never seemed to mind them.

My reference book states that the Goshawk is very destructive to game birds, and as the forests of that locality contain great numbers of grouse, among which is the Franklin Grouse, I decided that the bird world would be better off if this family was not allowed to live. The Franklin Grouse is known locally as the "Fool Hen" and they would be easy victims for such a dashing bird of prey.

On June 21st I shot one of the old birds and took the young. Their growth had been rather slow. Their bodies were still covered with white down, but their wing feathers were well advanced, and their tails had commenced to sprout. I took them to camp. They were vicious, not making friends, and refusing absolutely to eat. However, I took small chunks of raw beef and forced down their throats.



Young Western Goshawks, Four Weeks Old
—Photo by Earle R. Forrest.

This progressed for several days and they were growing fat, but disaster was approaching. They continually quarreled among themselves, and one day in a general free-for-all one of them was killed. When I discovered what had happened the departed one was half eaten.

This gave me an idea, and I shot several gophers, of which there were large numbers in the vicinity of camp. But I had my trouble for nothing for my pets would not touch them. They had had a taste of fresh blood, and the lust of battle was inherited from many generations of ancestors. They kept fighting among themselves, the stronger killing the weaker, until only one was left. However, the survivor did not stay with me long for in a few days he too died.

The alpine Three-toed Woodpecker was very common, in fact was the only woodpecker observed in the Big Hole Basin. The Lodgepole Pine in that vicinity was attacked by a beetle known as *Dendrochnas monticula*. The adult beetles bore through the bark and lay their eggs in perpendicular channels. The larvae is a small white grub which cuts channels around the tree and will completely girdle it. They will kill a tree in one season. Hundreds of acres of fine timber have been killed. However, the Forest Service has been hard at work and now has the scourge under control, and I think that another season will see them exterminated.

I frequently saw the Alpine Three-toed Woodpecker on an infested tree searching for *Dendrochnas* larvae. The bark by that time had become dry and dead, and the woodpeckers chisled it off in large pieces. A number of trees were found from which they had entirely stripped the bark without in any way damaging the channels and workings of the insects. One of these trees is shown in the accompanying

photograph. This particular tree had been peeled by these woodpeckers from the ground to the top. The tree was about two feet in diameter and about fifty feet high, and very limby. Eashington, Pa. Earle R. Forrest.

Just From Georgia.

This is my first time to write, but I love nature and have studied the birds for many years. I may say nearly ten years for I am ten years old. My mother used to put me in my cart and roll it out under the trees for me to take my nap, and it seems now that I can recall my lullaby from the tree branches overhead: "Phoe-bee-ee-e, Joree! Jcree!! Horee!!"

When I was able to stand alone, I had a "pen" to stay in. My mother used to place it under the oaks and my face was always turned upward as I answered them back in glee, "Tweet! weet! weet!"

We are still having frosts in Georgia, but it seems to me about all our birds have come back. The Brown Thrush and the old Blue Jay spent the winter with us and the Mocking Bird has been here a month; but this morning the grove surrounding our house is fairly alive with songsters, and bright colors. At one time, I could see a yellow hammer, some Robins, Red-birds, Jays, Red-headed Woodpeckers and a limb full of wild canaries. I am watching to see how many are going to nest in the houses I have made for them.

Flying squirrels have taken possession of one house. They are such cunning little creatures, I just let them stay. Chipmunks come to our sleeping porch and scamper across the bed and so do the flying squirrels. We live in a pretty wood and as we never harm the wild life about us the little creatures do not fear us.

College Park, Georgia. Lynn Taylor.

Shore Bird Skins.

Why is the demand so much greater for the skins of shore birds than for the skins of other species which are quite as rare or more so?

Several letters which I have received from different parts of the United States since my article "Cape Cod Notes" appeared in the October number of THE OOLOGIST, have again brought this question to my mind for the shore birds have always interested me.

It seems to me that several reasons combine to make these skins so much desired by nearly all collectors. First, their beauty, and the sport which always accompanies the collection of them; second, their scarcity. Now that in many states the big markets are prohibited from selling game it is constantly growing harder to obtain them, for no inconsiderable number of the rarer kinds were sometimes found in the "peep" baskets at the markets. In addition to this the Federal Government is trying to stop the killing of all but six varieties throughout the United States, and this will take away the collector's chances of obtaining specimens from the local hunters; and many a collector has relied on the village boys for more or less of his specimens each season.

At the present time, in order to get a shore bird, it is almost imperative that one shall go in person to the marshes where they are found. The number of collectors is constantly increasing, and most of the new ones soon discover that the shore birds are hard to get, and they call on the older collectors for whatever skins they have to spare.

The third reason, and I think the greatest reason of all, for this demand for skins is the fact that comparatively few collectors make up really good skins of this family of birds. What is

more discouraging than after a lot of correspondence with people in various parts of the country, to send and buy, or exchange for, a few skins, and then when they finally reach you, to discover that grease has oozed out on the feathers of the abdomen, and possibly find a dark line of accumulated dust already showing along the edges of where the opening cut was made in skinning the bird. You realize that even if you clean this off, there is a supply of grease inside which will soon come out and put them in the same condition once more. I think this is caused partly by carelessness on the part of old collectors, but mostly because some of our younger collectors either do not know how to avoid it, or do not realize the importance of it. I believe that in time this fault in skins will be corrected. Twenty-five years ago skins with grease on them may have been acceptable, but at the present time collectors want really fine skins, as nearly perfect as they can be prepared, and many men will throw out a poorly made skin, preferring to go without it until they can get a good one of the species.

For this reason I have ventured to give a few simple directions to help the beginner, and perhaps to impress it on the minds of some others that it is desirable to do these things.

After skinning a bird, and scraping and cleaning off all the fat you can, sponge the whole inside of the skin with benzine or gasoline, taking care not to get your cleaning fluid near a lamp or flame because of the danger of explosion. Then, after poisoning the skin and filling the cavities of the skull with cotton, turn the skin right side out once and carefully wash off all blood stains with warm water. Then thoroughly sponge the whole outside of the skin, including the feathers, bill and legs, with the benzine,

paying particular attention to the feathers along the opening cut, and afterwards dry out the benzine by using plenty of plaster paris. Beat out all the plaster by slapping the skin smartly between the palms of the hands preferably out of doors where the plaster can blow off to one side. Next brush the feathers carefully with a rabbit's foot or a piece of cotton batting and proceed as usual in making up the skin.

If desirable to have the skins shaped, when finished, don't neglect to tie the wing bones together inside the skin, before putting in your filling material. Wrap a little cotton around the bone of each leg so that the skin will not shrink up to the bone itself and dry all wrinkled there. Be sure to put a small stick, or wire, covered with cotton, inside the neck with one end pushed firmly into the skull and the other end extending well back in the filling material in the body of the bird. This will brace the neck and head so that they will not shake loose or break.

After a skin has been well sponged inside and out with benzine there is no fat left in it to run out on the feathers, and the skin itself dries out more quickly than it would under other conditions. We frequently see skins with the feathers missing around the throat and abdomen. This is usually caused by keeping the birds too long before skinning them, especially if the weather is hot, as is generally the case in shore bird season. The skin begins to spoil on the abdomen first, and on the throat soon afterward, and the feathers slip off during the process of skinning. To avoid this, don't kill forty or fifty birds with the expectation of making up most of them into nice skins, for, take my word for it, you will surely get tired before you have taken care of the first dozen of

them. It is far better to shoot half a dozen of the best specimens you can find, and then go home and put away the gun and make up the skins while the birds are fresh. You may not be able to brag about the big bags of game you have made during the season, but you will have a series of skins which in the end will give you more satisfaction; and which will probably give you a reputation as a hunter which the mere game slaughterer can never give, no matter how hard you try.

I do not claim this to be an original method of treating bird skins, for many of our collectors have made up their skins in this manner for years past. That is the reason why the skins you receive from some collectors make such a favorable showing in the cabinet when compared with some others which are carelessly prepared. Let us have more shore birds before they become so rare that we cannot procure the birds.

Horace O. Green, Taxidermist.
Steneham, Mass.

The assistant, who has edited the magazine for the past three months, desires to take this means of thanking our readers for their patience, and the many good words that have been conveyed to her for her effort to keep the little magazine up to standard during Mr. Barnes' absence. It has been interesting work, and an incentive to take more interest in our little feathered friends in the future.

The Oologist is indeed making rapid strides toward becoming one of the best of bird publications and it will remain, as it has always been, our most beloved.

Paul G. Howes.

Your magazine is worth more than we are now giving.

D. J. Nicholson.

THE OÖLOGIST.

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Daughter of Isaac E. Hess, observing "Pitty birdies" in the "nice ole twee."

—*Photo by Isaac E. Hess.*

A Word Personal.

March 6, 1915, thirty-two miles Northwest of Los Angeles, the editor fell from a live oak tree which he was climbing for the purpose of investigating a nesting cavity into which he had seen a Plain Titmouse go. It was about twenty-five feet from the ground or slightly more, and carelessness caused us to overlook the fact that in February, 1912, our left shoulder had been thrown out of place by a fall on an icy sidewalk in Minneapolis. In shifting position in the tree we inadvertently threw our weight on this left shoulder with the result that it went out again and we started hurriedly for the ground.

On the way down, struck another limb which broke the left leg of the Editor, as our readers have already been advised, and when we landed, the net damage was a left leg fractured in four places, a broken nose, a broken shoulder and shoulder out of place, beside more or less serious internal injuries.

We were taken immediately to the Sisters' Hospital at Los Angeles, where we remained for five weeks; then going to a cottage in Hollywood, which we left for home on May 3d, arriving here on the 6th. At the present writing we believe we are on the high-road to recovery, and are able to walk about with a cane only, though the shoulder promises to give us more trouble than the leg.

During our absence, our assistant, Miss Erna Thiedohr, has had charge of this magazine and has done very, very well with it. This is not only the opinion of the Editor, but is communicated in various letters that come to us from our readers.

We are now back in the harness and hope our subscribers will endeavor to assist us in making THE OOLOGIST better than it ever had been, and it

is better now than it has been at any time in the past.

A magazine, like a person, either goes backward or forward; never stands still, gets better or worse. Our clientele is loyal, extended and learned, embracing ornithologists and oologists of world-wide reputation, as well as beginners. Field workers are those that we especially aim to cater to. The closet naturalist has a proper place in scientific pursuits, but the closet naturalist is sufficiently heard from in *The Auk* and other ornithological magazines. What THE OOLOGIST aims to do is to furnish a mouth piece and mirror for the active field workers, both the ornithologist and oologist, giving special attention of course to the oologist, and it is the only magazine devoted to oology published in America and is the best published on the subject in the world.

It has been made so by those who take it any pay for it. They traverse hill and dale, and farm, woodland and swamp, and give each other through the columns of THE OOLOGIST, the privilege and opportunity of travelling with them and learning what they learn, and seeing what they saw. These are the kind of notes that have made THE OOLOGIST, and these are the kind of notes that we want.

Ever since THE OOLOGIST came under the present management, the June issue has been devoted to the Warbler family. This, because our subscribers have furnished us ample copy so to do, and it is with regret that we announce that this issue is not devoted to the Warbler family because our readers and subscribers have not furnished us copy sufficient to make a Warbler number. June is pre-eminently the Warbler month. This large family of tiny, beautiful birds is worthy of one issue per annum, and we trust that those who

study their habits and see their secrets and invade their realm will see to it that at least next June, we will have a Warbler number that will surpass anything ever issued on the subject.

R. M. Barnes.

Western Meadowlark.

A friend of mine while out hunting on the 15th of December, 1914, flushed a female 501-B (Meadowlark) from under his feet. On looking around a bit he discovered a finely built nest well concealed, containing three eggs. He told me about it on the 17th and we journeyed out there—National City—about a mile from home. When we arrived at the place there were still three fresh eggs instead of five and no bird. The eggs were all wet, the nest just drenched, owing to heavy rains; the bird had left the nest. Now I call that an early record. My precious records show February 10th the earliest and I think everything will nest early in 1915.

E. E. Sechrist.

Early Nesting of the Ruffed Grouse.

At Haskell, N. J., on April 26th, while making a trip over the hills and observing the migrational aspect of this section, I came upon a female Ruffed Grouse sitting on a nest in which two eggs had been laid. The bird hastily took to flight as I neared the site of the nest.

The nest was placed directly on the ground among the dried leaves at the foot of a laurel bush and would have escaped attention except for the fact that I almost stepped upon its owner before she took to the wing. This is the earliest nest of this species that I have ever found, the next earliest having been located about a mile to the east of this spot on May 17th, 1908.

This bird usually nests in this section from May 20th to June 5th and

it is only on rare occasions that they have been located prior to May 26th, the average date of about seventy nests that I have examined. In all probability this early nesting is due to the prevailing congenial weather since April 10th.

On the 11th numerous adult birds were flushed about here and again on the 18th and the 25th about fifty were observed on each day of the sexes.

Louis S. Kohler.

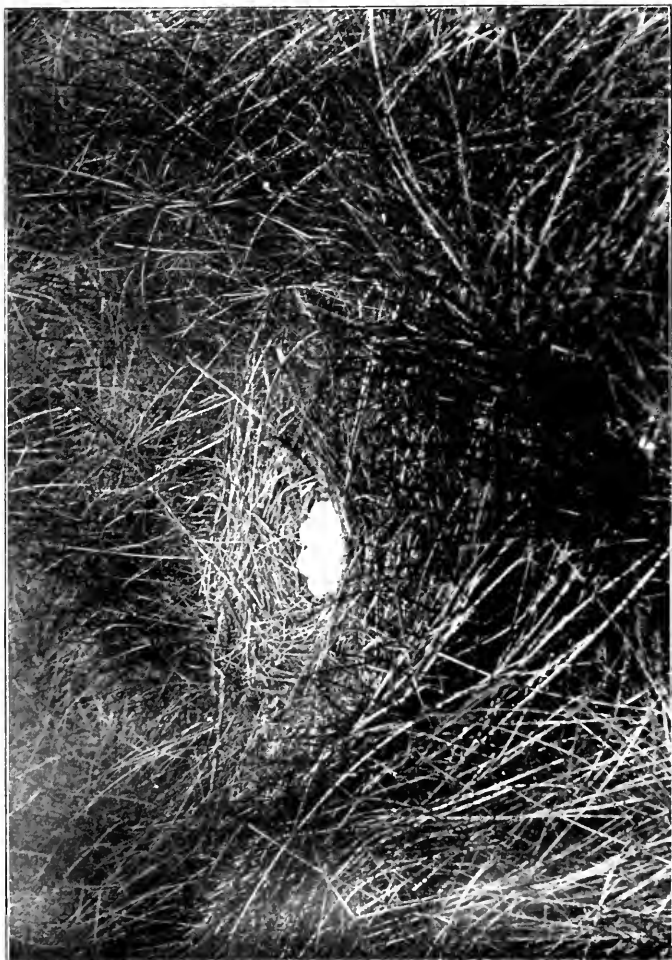
Spring Observations.

It is generally thought that the robin is the last bird to leave us and the first one to come, omitting, of course, sparrows and snowbirds, or the real winter birds. My observations this spring, however, seem to upset this theory, for by far the earliest and the most numerous bird was the blue bird. It came at least a week before the robin.

With the coming of spring a large field of study and observation presents itself, especially in the case of the game birds of the nature of ducks, geese, and the like. Upon quietly creeping up to a flock of mallards, it at once became evident that some sort of a battle was going on, for a flock of crows had also arrived and were now fighting the ducks for the possession of a short strip of sand adjoining the river. The crows would stay in the tops of high trees and now and then one of them would dive head-first at the ducks which were on the sand or in the water at the river's edge. I also observed that this was not a coincidence for whenever a bunch of crows were seen above a pond or any body of water, the ducks were usually found to be there.

Fred L. Fitzpatrick.

Bethany, Neb., Apr. 3, 1915.



Nest and Eggs of Marsh Hawk Showing General Surroundings
—Photo by E. W. Vickers.

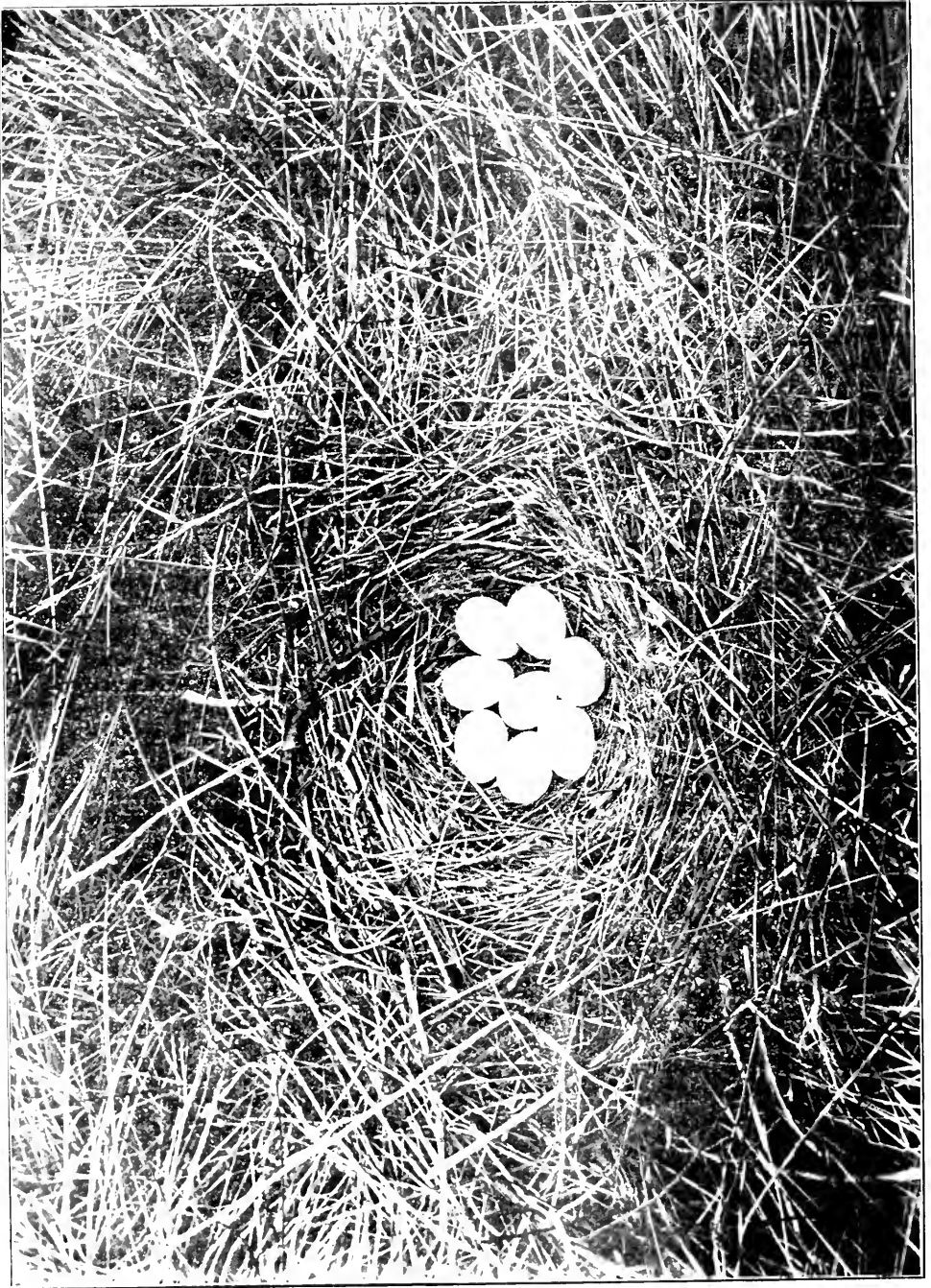
Farralone Rail.

While returning from a collecting trip to Otay Valley one day in April, 1906, I stopped at Sweet Water Slough, that is about the largest slough around San Diego being situated between National City and Chula Vista. I thought I would spend an hour or so looking for Beldings Marsh Sparrow or Light Footed Clapper Rail. I found a deserted nest containing five eggs I thought looked like Meadowlarks, but were smaller and markings were very faint. On looking around some more I located other nests with in, two and three rotten eggs and broken egg shells in them. But just before I left I found a fine set of seven pretty well incubated, which took me about three hours to blow, on looking them up I found they were Black Rail, there being no subspecies then. So several days' later, on telling an egg collector friend of mine about it, we journeyed down there for another look. Although it was raining, I located two sets of seven and one set of eight; the largest set I know of being collected on the coast. I don't know whether they are found any where else on the coast or not, but about two years later there was an article published on their nesting, but my friend got the credit for it. Sometimes I think there are twenty-five or thirty pairs breeding there, then again, another year you cannot locate a single nest.

The average sets contain five eggs but they run from four to eight eggs although all the large sets there are two and three eggs that don't hatch on account of the bird being so small she cannot cover them. I have found them nesting in all the different sloughs around San Diego. They nest higher and dryer than the Clapper Rail, nesting way back where the ground is practically dry, except on

flood tides. They nest very early on account of the high tides in May and June which would drown them out. The nests are composed of fine marsh grass, once in a great while using dry seaweeds, most always on a raised piece of ground on a small hump well concealed. I never have seen a bird leave its nest and get back on it and yet you will find the eggs warm. They look like a mouse running through the grass, never flying unless you nearly step on them or the grass is very thin. Their homes are situated all the way from twenty-five feet, right down to the edge of a small stream and most always setting on the ground. Sometimes you hear a male bird cackling that is a sure sign you are near a nest. You can get down on your knees and part the grass by the hour to find it, then sometimes you fail. One fellow told me every egg he had taken represented eight hours' work. There is quite a variation in the size and shape of eggs in the same set, also same sets the immaculations are heavy and others fine. Mostly all are very finely marked. Sometimes you will find where they have built a new nest on top of an old one, making a rather bulky nest for this species. Most of the nests are so frail that you have to sew them together in order to collect them. The birds flight is very slow and unsteady like other rails, but if not knowing what they were you would take them for young birds. The young leave the nest about one day after being hatched, like little black balls of cotton. The old birds in incubating sit very close, one reason for making them so difficult to find. And when they flush you don't know it. Between the ants, slough mice and short-eared owls a great many of them are destroyed. The owls getting both old and young ones, also the ants, while the mice destroy the eggs.

E. E. Sechrist.



Nearer View of Nest and Eggs of Marsh Hawk in situ
Photo by B. W. Vickers.

The Wood Duck.

On several occasions while staying at my favorite camping grounds, a large mill pond near Wilmington, Del., I have had an opportunity to observe the Wood Ducks, said to be the most beautiful of American waterfowl and fast relegating to the rare list in many sections. There are always a few pairs in this locality and they evidently breed here. I have made a search on several occasions for their nesting sites but without success. I have seen several broods of little ones, however, during the latter part of July.

One day a friend and I were out on a little camping and canoe trip and on rounding a sudden bend in the creek above the pond, we came upon a mother duck and about seven little ones. A sudden note from the mother caused a prompt disappearance of the ducklings into the depths below. The courageous mother, however, instead of beating a hasty retreat, as one would most naturally expect, came flying toward the canoe and flopped down just in front of us, beating the water with her wings and trying by every means to make us believe that a crippled duck was just within our grasp. Seeing no signs of the little ones, we started to follow the mother as if intending to catch her. She skillfully decoyed us up the creek until around another bend when we were, in her estimation, a safe distance from her little brood. She then suddenly and miraculously recovered and quickly disappeared among the heavy growth of hard wood timber which clothes the banks of the creek. We promptly returned to the scene of the first encounter. The little ones had evidently recovered from their fright as we saw three of them swimming around. On seeing us, two of them dove, while the other made slowly for the bank, half submerged like a grebe.

As soon as it landed we made a dash for the spot and the little fellow led us a merry chase through fallen timber, across ditches and through thicket and tangle. We finally corralled him, however, and made him pose as a photograph, much against his will. After taking a good look at the youngster, we set him down near the creek bank, and by the way he took to the water, we could imagine him congratulating himself on his fortunate escape from his terrible captors.

On another occasion, we came upon a mother duck with about fourteen little ones, the largest brood I have ever seen. During late August I have seen several half-grown wood ducks, not yet able to fly. If surprised in deep water they immediately dive. When caught in a shallow spot, they half fly and half swim along the surface to deep water and safety.

In the fall, large numbers come in to feed on the acorns that abound there. About the first of November they seem to be getting ready for their trip South. In the early morning and soon after sunset, they gather in some little cove in the upper reaches of the pond and keep up a terrible chattering for an hour or so. By the middle of November, the last ones have gone to a warmer clime.

A. B. Eastman.

Wilmington, Del.

Not Afraid.

While out walking Monday the 19th, I came across a "Brown-Headed Nuthatch" nest, it was in a natural cavity in a fence post, and the post was situated one hundred feet from a railroad, where there is as many as fifteen or twenty trains pass daily and was twenty-five feet from the engine room of a large brick plant, which latter kept up continuous noise all day long, especially the exhaust from the

engines. And another strange fact about the nest it had a large wasp's nest hung from the top, which had a few live wasps in it.

The nest contained six well marked eggs—which were fresh.

Earl Moffat.

Notes in the Red-eyed Vireo in the Vicinity of Philadelphia.

The Red-eyed Vireo is one of our commonest woodland birds and every wood-lot or grove harbors at least a pair during the breeding season. During the past eighteen years I have found two hundred seventy nests of this interesting species, excluding those I have seen after the breeding season. Of these nests one hundred three were empty and the others contained eggs and young as follows:

- 15 nests contained 1 egg.
- 27 nests contained 2 eggs.
- 65 nests contained 3 eggs.
- 24 nests contained 4 eggs.
- 1 nest held 4 young.
- 2 nests held 6 young.
- 3 nests held 12 young.
- 4 nests held 3 young.
- 5 nests held 2 young and 1 egg.
- 1 nest held 3 young and 1 egg.
- 1 nest held 1 young and 2 eggs.
- 2 nests held 2 young and 2 eggs.
- 1 nest held 1 young and 3 eggs.

Altogether 19 nests held 1 egg or young.

- 33 nests held 2 eggs or young.
- 83 nests held 3 eggs or young.
- 31 nests held 4 eggs or young.

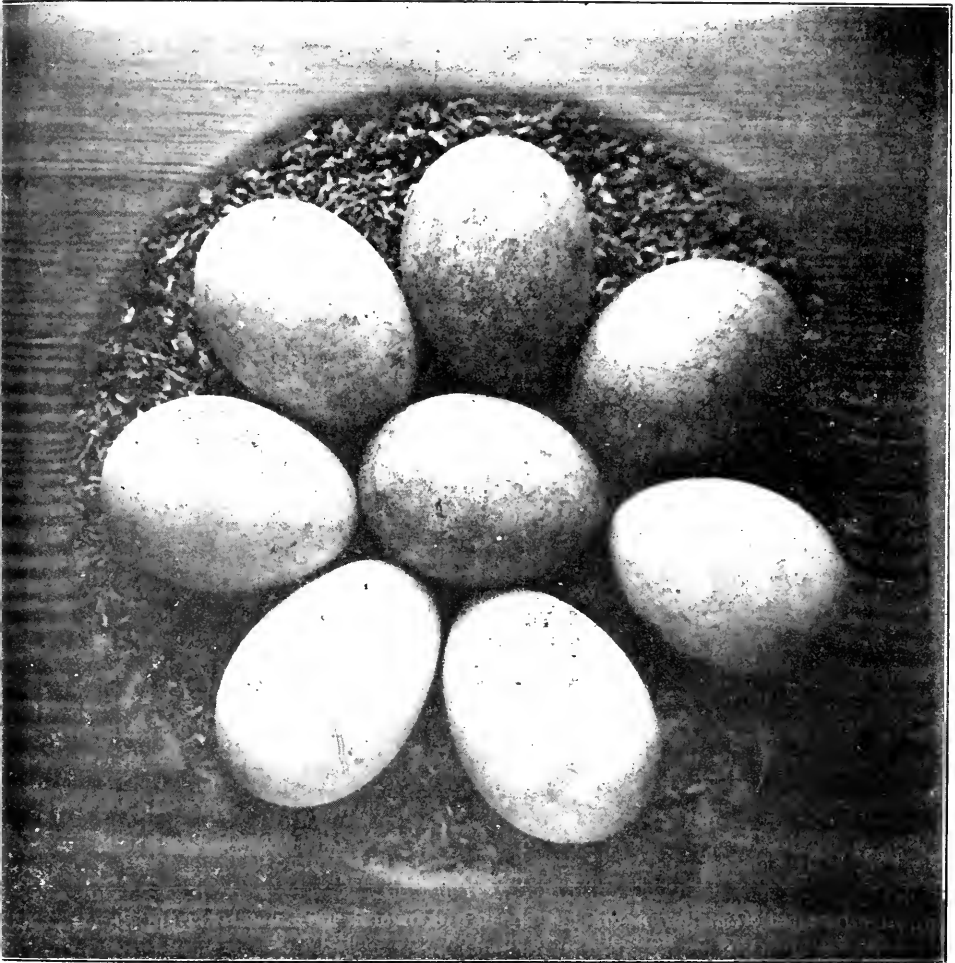
Of the one hundred three empty nests, the majority of them were sham nests.

These records show that the Red-eyed Vireo, in this vicinity at least, commonly lays four eggs and they also indicate that clutches of two occur more often than those consisting of four eggs. Sets of three, however, is the common number of eggs laid, and

such clutches occur almost twice as often as those of two and four eggs; the single eggs were invariably in completed sets or were found in deserted nests.

I have found the Red-eyed Vireo nesting in the following varieties of trees and bushes in this region, as well as a few in unidentified shrubs.

1. *Fagus grandifolia*, Beech, 65 nests.
2. *Benzoin asativale*, Spicewood, 35 nests.
3. *Cornus florida*, Flowering Dogwood, 32 nests.
4. *Acer rubrum*, Red maple, 24 nests.
5. *Quercus alba*, White Oak, 14 nests.
6. *Ostrya virginiana*, Ironwood, 11 nests.
9. *Viburnum dentatum*, Arrowwood, 11 nests.
10. *Hamamelis virginiana*, Witch Hazel, 8 nests.
11. *Quercus velutina*, Black Oak, 7 nests.
12. *Fraxinus americanus*, White ash, 7 nests.
13. *Quercus coccinea*, Scarlet Oak, 5 nests.
14. *Liriodendron Tulipifera*, Tulip tree, 5 nests.
15. *Prunus serotina*, Wild cherry, 5 nests.
16. *Castanea dentata*, Chestnut, 5 nests.
17. *Sambucus canadensis*, Elderberry, 3 nests.
18. *Hicoria Glabra*, Pignut, 3 nests.
19. *Sassafras sassafras*, Sassafras, 2 nests.
20. *Nyssa sylvatica*, Tupelo, 2 nests.
21. *Rhus Toxicodendron*, Poison Ivy, 2 nests.
22. *Quercus rubra*, Red Oak, 1 nest.
23. *Alnus rugosa*, Alder, 1 nest.
24. *Liquidambar styraciflua*, Sweet gum, 1 nest.
25. *Vaccinium* sp. High Huckleberry, 1 nest.
26. *Viburnum acerifolium*, Maple Viburnum, 1 nest.



Set of Marsh Hawk Eggs Shown in Foregoing Photographs, Collected by E. W. Vickers and now in his Collection

Photo by E. W. Vickers.

27. *Tsuga canadensis*, Hemlock, 1 nest.
 28. *Rhus Toxicodendron*, Poison Oak, 1 nest.

The Red-eyed Vireo seems to prefer the Beech tree to any other in this vicinity and the Spicewood and Dogwood about evenly claim second place; all of these three varieties of trees are uniformly distributed and of relative abundance here, although the Spicewood is by far the commonest species. But one nest was found in a conifer and I have never seen but over four Red-eyed Vireos' nests anywhere in hemlocks and never in any other kind of evergreen trees.

Let us hear from others regarding the varieties of trees preferred by this interesting bird and the number of eggs constituting a set, from other localities and perhaps the writer will then have more to say anon in regard to the nidification of *Vireo Olivaceus*.

Richard F. Miller.

Nigger Slough.

On May 5th, the writer discovered a large flock of twenty Red Phalaropes (*Crymophilus fulicarius*) at North Nigger Slough in Los Angeles county, Southern California. This is our first record of the species in this area. We also noted many nests and adult birds of the species Tule Wren (*Telmatodytes palustris paludicola*). Last year we failed to find the species present in this locality.

Alfred Cookman.

Golden Eagle.

A large Golden Eagle was killed April 2d by a local sportsman. It seems a shame to kill these beautiful birds. I remember as a boy of fourteen years of age, that I saw a Bald Eagle feeding on a Black Bass on a log in the Maquoketa River here. So busy was he that he did not hear me

as I crawled up behind a large old stump in easy range. I remember how excited I was and how my hands trembled as my old double barrel muzzle loader came to my shoulder, never had I stalked such a prey as this. Shot in the back, not even given a chance, I brought him home in all glory and held him up where all could see, as did the man that brought in the Golden Eagle to show his friends his skill(?).

I still have the claws and a few feathers, all that is left of the first and last Eagle I ever killed.

The Golden Eagle was sent to Ames, Iowa, to the College.

O. M. Greenwood.

To Save Rare Eggs.

So frequently I read in accounts of the discovery of rare eggs "Incubation was so far advanced that they could not be saved," that I have thought a plan I have used for many years might be of interest, if not already known to your readers. By it eggs at least as small as those of the Oven-bird, even when pipped, may be saved without difficulty as excellent scientific specimens.

If an egg is pipped, or if on probing the interior after making a small drill-hole the chick is found to be well formed, paint the entire shell, if the egg is small, with a thin coating of flexible collodion. Then apply several coats of collodion on the side where it was pipped, drilled, or, in the remaining eggs of the set in which one has been drilled, on the least interesting side. When the collodion is dry—a matter of a few moments—cut with curved scissors on the side which has been thickly painted a large enough circular opening to allow the head of the embryo to pass, and remove the piece of shell. Next move the embryo around in the shell until it is possible

to fasten a hook in the chin under the symphysis of the mandible. The entire bird can then be removed easily, the inside of the shell cleaned with water and, after it is thoroughly dry, the piece of shell that was cut out can be replaced, and fastened firmly with collodion. Care must be taken that the egg is absolutely dry before applying the collodion, as otherwise it will not stick to the shell.

As a result of using this simple expedient I have in my collection the skins of one young Semipalmated Plover, two young Whippoorwills and young Canvasbacks, and the shells from which they were taken.

Louis B. Bishop.

Ontario, 1914 Nests.

394c—Northern Downy Woodpecker 5-26-14. Nest in hole ten feet up in dead poplar; five fresh eggs. Toronto.

423—Chimney Swift. 6-8-14. Nest deep of twigs in barn, containing four fresh eggs. Thorah Island.

461—Wood pewee, 6-22-14. Nest built on last year's nest forty feet up saddled on crotch of birch very shallow; three advanced eggs. Wasago Beach.

501—Meadowlark. 6-3-14. Nest arched on ground, containing six advanced eggs. Toronto.

511b—Bronzed Grackle 5-22-14. Nest in Marsh two feet above water similar in construction to Red-Wing's, only much larger with three advanced eggs another nest of similar construction was found with three fully fledged young. Toronto.

529—American Goldfinch. 7-28-14. Nest six feet up in willow crotch; six fresh eggs. Three other nests found containing six fresh eggs. Wasaga Beach.

613—Barn Swallow, 6-10-14. Nest in rafter in barn containing seven fresh

eggs. Large colony breeding. Thorah Island.

614—Tree Swallow, 6-7-14. Nest of feathers in hollow fence rail; five fresh eggs. Several nests found in similar situation. Thorah Island.

619—Cedar Waxwing, 7-16-14. Nest in Norway pine eighteen feet up; five slightly incubated eggs. Most of nests found were at varying heights in Norway pines. Wasago Beach.

622c—Migrant Shrike, 5-15-14. Nest six feet up in thorn bush of twigs, bark and string, lined with bark, feathers and grass; four fresh eggs. Toronto.

655—Myrtle Warbler, 7-17-14. Nest of twigs lined with hair and feathers at top, fifteen feet up on horizontal limb of pines; one fresh cowbird's egg and two far advanced eggs of onwer. Wasago Beach.

736—Carolina Chickadee, one found with flock of Black Capped Chickadees. Toronto, 4-10-14.

Paul Harrington.

The Killdeer.

(*Algalitis vocifera*)

The Killdeer arrived in this neighborhood this season on March 13, which is about one week later than is usual. For three successive years the first killdeers arrived on March 6 but as 1914 has been uncommonly cold, they delayed coming one week. Even at this late date they came long before all the snow drifts were gone. During the day of their arrival I usually see them for hours at a time flying high in air in wide undulating circles as though it was difficult for them to alight, the whole time uttering their clear shrill cry.

They usually leave here about November 15 but owing to the very deep snow on the morning of November 9, 1913, they left that day going in large flocks. So from the first week in

March until during the third week of November, the Killdeer is one of our most common birds.

The nesting season begins late in April and lasts until about the tenth of June. The number of eggs in a set runs from three to four, four being the most common. In all the many nests I have found but one has contained five eggs. (Harperfield, O., June 7, 1906). This I consider very rare. The nest is usually to be found in bare fields but sometimes it is closely cropped pasture fields. I often find the nests while plowing old corn ground or cultivating up fall plowing. When I find one I always make a small depression and put the eggs in it out of harm's way. This is the only bird I know of that will continue to occupy its nest after it has been moved to a new place. The nest is usually lined with very small flat stones or broken pieces of straw, sometimes no nesting material is used. It is seldom that the young remain in the nest over twenty-four hours. When very young they have the curious habit if in short grass and danger threatens of ducking their heads down under the grass and tipping the body up making it almost impossible to see them. During August and September, the Killdeer becomes very plentiful about the shallow waters of the river.

S. V. Wharram.

Austinburg, O.

The Elusive Kentucky Warbler.

Among other birds in the woods along the Little Caney river, I frequently heard and saw the Kentucky Warbler, but not being familiar with them, failed to locate their nests. On May 26th while on a usual tramp, a pair of them attracted my attention by their worried crys, my first thought was of snakes, so hustling to where they were, saw them fluttering and

darting around a small bush; sure enough there was their old enemy. Mr. Snake, had already swallowed one young and the second was in its mouth. I soon stopped his nest hunting. Two young and a nearly incubated egg were in the nest. Later on I found a deserted nest with an egg of the Cowbird. The next season, 1914, I wrote Kentucky Warbler in big letters on my list of likely finds. On April 26th the first one put in his appearance, and soon they were in several likely places and you may be sure I was on my guard, but so were they and they were sure to see me first. On May 6th, saw a small yellow bird gathering nest material; thought it a Maryland Yellow-throat but I soon saw the male, a Kentucky Warbler so I kept doubly quiet, soon the female flew into the weeds at the foot of a small tree, on leaving I found nearly completed nest. May 11th, it held a Cowbird's egg which I removed. The next day another was in it and the Warblers were not to be found. Removed this egg also. Three days later a Warbler's egg was in the nest; the next day another Cowbird's egg. The nest was then deserted for good, and although the birds did not go far away, I failed to find their nest. Several weeks later found a half grown young by seeing the male leave clump of vines and briers. June 3d, while looking for a nest of Swainson's Warblers a bird flew under my feet and flew in a bush. I soon found it to be a Kentucky Warbler. The nest was at the foot of a sprout in an old road and held three fresh eggs and one of the cowbird. Thinking another one or two might be laid, I did not disturb them but on returning two days later, found that some rodent or snake had beat me to them for the nest was empty. A few days before this found a deserted nest with a Cowbird egg in

it and later an empty nest. One particular pair in another part of the woods took up much of my patience and no little time, keeping me from their nest.

Albert J. Kirn.

Copan, Okla.

An Appreciation.

George Miller, naturalist and taxidermist, died at his home in York, Pennsylvania, at 9:15 p. m. Thursday, May 13th, at the age of eighty years: pneumonia following an attack of grip from which he had been convalescing, caused his death.

Mr. Miller had been a reader of THE OOLOGIST for thirty years. He became a subscriber when the first number of the paper was issued. When the writer called on Mr. Miller on May Day, the venerable naturalist had just recovered from an attack of grip. THE OOLOGIST was discussed and Mr. Miller brought out several early copies of the paper. He declared that he found THE OOLOGIST better in recent years than it ever had been in all the years of its publication. He spoke enthusiastically of the magazine.

I left some specimens with him for mounting, turtles and other reptiles. He spoke of collecting trips he had in prospect. This was the last time I ever saw him alive.

The writer had known George Miller 33 years and had always found him enthusiastic and thorough in his work as a naturalist. Though he had not spent many days in school, his knowledge of nature was intimate. He possessed and knew how to use intelligently a well stocked library of books on natural history subjects. His reading and field work had enabled him to acquire a vast fund of scientific information which rendered him a profitable companion to the student.

Wadsworth M. George.

Starling.

I read an article in a Sportsman's magazine today entitled "Should the Starling be Outlawed," in which the writer says they should have protection.

I don't believe it necessary to protect the Starling, because even though the season for them is open all year, they are increasing very rapidly and more than holding their own. Besides that they are quite shy and will fly away at the least alarm and not allow a person to get within gunshot in the woods. I have shot a number of them and know that they will get up and fly away before you can get near them, in nine instances out of ten. Of course near the city and even in the busy parts of the city you can approach very near to them, sometimes within a few feet, the same as Sparrows, they seem to know that you can't shoot them. There are a few hunters shoot them anyway. As I hear they are tough eating, besides shells are dear and it isn't worth while to waste them on Starlings. I stuff most of them I shoot.

They are also annoying because they nest and roost about the houses. I was out in the woods today and on my way coming home saw a flock of about two hundred or more of them. It was after sunset and they had most likely made up their minds to roost there. It was right in the front yard of a large house in the city and they made an awful racket with their whistling, that they kept up constantly. A few weeks ago when I was out to Jamaica and noticed that almost every church I passed had large flocks of Starlings around them that were going to roost in the top under the steeple. At one church there was at least five hundred Starlings. They get in the top through the shutters. The noise they made as they flew

around inside, whistling could be heard two blocks away. Every tree in the yards of the neighboring houses were filled with them.

Milton J. Hofman.

My First Set of Maryland Yellow-throat.

The Maryland Yellow-throat and a certain swampy hillside are so closely associated in my mind that it is impossible for me to think of one without recalling the other. On this particular hillside each season I had harkened to the call of the Yellow-throats and searched diligently for nests. Although several nests were discovered, the unexpected always happened and each season closed without the addition of a complete clutch to my collection.

One afternoon in the latter part of May, 1909, as I was crossing the familiar field, a Yellow-throat mounted a thistle and sent forth his clear call, which can well be translated, "tackle me, tackle me, tackle me." Whether it was the nice set of Worm-eating Warbler a Cowbird had just ruined for me, or the additional exasperation produced by the extreme deliberation of the Yellow-throat's manner; all the anxieties and disappointments of past experiences with the bold little sentinel of the thistle arose in my mind, and I moved stubbornly on, determined for once not to accept his challenge.

I had proceeded on my intended route only a few feet however, when a bird fluttered from a bunch of tall grass at my feet and exposed a beautiful set of Maryland Yellow-throat. To use the slang expression I had at last "put one over" on the gaily attired head of the house, who had by this time deserted his post on the thistle, to join his more sombre-hued mate, who was nervously flitting from weed to weed vainly trying to engage my attention.

Thus the ice was broken with the Yellow-throats, and as I look over my series I can recall with a smile the many disappointments of the past.

James B. Carter.

North Texas Bird Notes.

By Ramon Graham

1. Mocking birds can be found nesting in town or country. They are the best singers in the South. The habits are about the same as the Catbird of the north. The Mocker is always looking for a new bird to mock and he seldom fails. The nest can be found in hedges, thorn and fruit trees. Mostly of twigs and sticks lined with fine roots and strings, laying from four to six bluish green, brown blotched eggs. The Winter is spent in South Texas and Mexico, arriving here in March and laying in April. The earliest date found was April 4th. I find about two hundred sets each season, but never take but two or three sets.

2. Lark Sparrows are known as wheat birds and can be found nesting in town or country. They are independent and wont have much to do with other sparrows. The nest can be found in fields, pastures and small trees, built of grass and lined with hair, laying from four to five white eggs with black markings. Thousands of these birds lay around here. I only collect about two or three sets a season. They arrive here in March after spending the winter in Mexico and South Texas. They start to laying in April. The earliest date being April 14th.

3. Field Sparrows can be found only in out away places. I have found them plentiful in one locality; North of here in a dry, hilly country. They arrive in March and are laying in full blast by the middle of April, laying from four to six white eggs with reddish brown markings. The nest is a

frail structure of grass, lined with finer grass placed on the ground or in small trees, bushes, etc. I collect about eight or ten sets a season, my earliest date being April 6th.

4. Grasshopper Sparrow. These birds are plentiful but the nests are hard to find. Arrive here in April and are nesting by the middle of May. Nest is of grass, arched over top so eggs are concealed, laying from four to six white, brown specked eggs. The only way to find them is to use a rope. Two parties take hold of the rope and drag it through the field where they are nesting. When one flies up look about five feet behind her and you will find the nest. Although these birds are plentiful, I rarely find over two or three sets a season.

5. Dickcissel. Arrive in April and are found in fields nesting the last of May, laying from four to five eggs of light blue. The nest built on the ground in bushes or weeds. These birds are plentiful but the nest is hard to find. I collect about a dozen sets a season, the earliest date being May 2d.

Answers Wanted.

I have been reading in John Muir's *Story of My Boyhood and Youth*, a most interesting incident, one which despite the veracity of the lover author, I find it hard to credit.

He speaks of hunting one evening about sunset in one of his father's fields in Wisconsin, that was much infested by gophers. He noticed a shrike dart down from a tree top and alight on the dirt threshold of a gopher hole. After a little hesitation, the bird, he says, dove into the hole, remaining out of sight while John ran up close to the place and listened. After much squealing and sounds of terror, out dashed a gopher, then another, finally six in all, scattering to all points of the compass as if in mortal fright.

Then out pops the fierce butcher-bird and in rapid succession lighted upon the backs of each of the fleeing animals and killed each by a shart peck at the base of the skull. After this, he dragged one gopher to a neighboring fence rail and proceeded to devour it. Is this likely? Can any of our Oologist readers in Wisconsin or elsewhere vouch for a similar feat? Maybe on strength of this there ought to be added another geographical race to the finely divided Shrike family. Might we call it *Lanius Phagogopherus* or Gopher Shrike?

R. T. Fuller.

The Yellow Warbler.

Spring arrivals of the Yellow Warbler at Hartford, Conn.

I do not wish to impress the readers of THE OOLOGIST that I have seen the first Yellow Warbler that arrives in the state of Connecticut. These dates are the days that I have first seen this Warbler in the vicinity of Hartford, for the last 22 years:

May 5, 1894.
 May 5, 1895
 May 3, 1896.
 May 9, 1897.
 May 3, 1898.
 May 3, 1899.
 May 6, 1900.
 May 5, 1901.
 May 4, 1902.
 May 3, 1903.
 May 1, 1904.
 May 7, 1905.
 May 4, 1906.
 May 12, 1907.
 April 28, 1908.
 May 5, 1909.
 May 4, 1910.
 May 6, 1911.
 May 2, 1912.
 April 27, 1913.
 May 4, 1914.
 April 28, 1915.

Clifford M. Case,

Three Hours on the Oakland Mud Flats.

Last Thursday, April 1st, the writer was in San Francisco. At 6 a. m. we crossed the bay to Oakland. We walked down to the mud flats for the tide was low, to study the birds that frequent this locality. They feed on crustacea, molluscae and marsh insects. We remained in this region, moving here and there recording the following species until 9 o'clock, and then took the car to Berkeley. The remaining part of the day was spent in the Museum of Vertebrate Zoology in the University of California.

List of the Birds seen on the Oakland Mud Flats:

1. Western Grebe (*Aechmophorus occidentalis*).
2. Pied-billed Grebe (*Podilymbus podiceps*).
3. Pacific Loon (*Gavia pacifica*).
4. Glaucous-winged Gull (*Larus glaucescens*).
5. Western Gull (*Larus occidentalis*).
6. California Gull (*Larus californicus*).
7. Ring-billed Gull (*Larus delawarensis*).
8. Heermann Gull (*Larus herrmannii*).
9. Least Tern (*Sterna antillarum*).
10. Brandt Cormorant (*Phalacrocorax penicillatus*).
11. California Brown Pelican (*Pelecanus californicus*).
12. Lesser Scaup Duck (*Aythya affinis*).
13. White-winged Scoter (*Oidemia deglandi*).
14. Great Blue Heron (*Ardea herodias*).
15. American Coot (*Fulica americana*).
16. Wilson Snipe (*Gallinago delicata*).
17. Western Sandpiper (*Ereunetes occidentalis*).
18. Sanderling (*Calidris arenaria*).
19. Hudsonian Curlew (*Numenius hudsonicus*).
20. Killdeer (*Aegialitis vocifera*).
21. Turkey Vulture (*Cathartes aura*).

Alfred Cookman.

Xema Sabini at Point Firmin.

On January 15th, 1915, the writer spent the day making a general ornithological survey at Point Firmin in Los Angeles County, Southern California.

The tide was low at ten a. m. The sea assumed a glassy appearance. The weather conditions were ideal and a delightful day was spent in this locality.

We recorded twenty species of birds and nearly three hundred individual birds. Our journey along the rocky coast from Point Firmin northwest to Whites Point was exceedingly interesting, a distance of three miles. We observed six species of gulls. One species in particular excited me very much. A Sabine Gull (*Xema Sabini*) was seen soaring in company with several Bonaparte Gulls (*Larus Philadelphia*). It seemed lost and unfamiliar with this region. It remained with these gulls for several hours, and then flew seaward and was soon out of sight. It had evidently got its bearings and was making an effort to find its members—inhabitants of the open sea. The Sabine Gull is a rare visitor in this locality.

Alfred Cookman.

Dept. of Biology, University
of So. California.

A White-eyed Vireo's Misfortune.

On April 19th I found a White-eyed Vireo's nest and one egg. The bird was on the nest so I came back in a week to find the bird gone and two cowbird eggs piled on the Vireo's egg that was broken. The cowbird eggs filled the bottom of her nest.

Ramon Graham.

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The Burns Bibliography

With this month's issue, as a supplement to and a part of The Oologist we present to each of our subscribers "A Bibliography of Scarce or Out of Print North American Amateur and Trade Publications devoted more or less to Ornithology," by Frank L. Burns.

The Editor, as well as each and every recipient of a copy of this compilation are under a deep obligation to Mr. Burns. Nobody who has not been connected with the preparation of this Bibliography has any conception of the amount of work and time that it has taken. It has been in progress of preparation for more than two years, and Mr. Burns, with his usual thoroughness has covered the subject as it never has been covered before.

This Bibliography will be the standard check list of this character of publications for all time to come. The ornithologist and oologist as well as the collector of this class of publications and all others interested in kindred publications, owe Mr. Burns a deep sense of gratitude. And it is with pleasure that we place before our readers the result of his labor.

—THE EDITOR

The Northern Raven.

By S. S. Dickey.

The Latin scientific name for the Northern Raven is *Corvus corax principalis* and means principal croaking crow. The general color of the bird's plumage is black and gives iridescent blue reflections in a proper light; the length of the species varies somewhat but averages twenty-four inches; the feet and bill are black and the latter is quite large and strong.

The Northern Raven is a sub-race of the American Raven which is found in the United States only west of the Mississippi River. The Northerner differs from the Westerner in being larger and in having a heavier beak. *Corvus corax principalis* inhabits the Alleghany mountains from northern Georgia to the Adirondack mountains of northern New York and the mountains of parts of New England. In the lowlands the birds are sometimes found on the coasts of Virginia and New Jersey. It seems that the species is most abundant in the United States on the rocky coasts of Maine. In the Dominion of Canada the birds may be expected anywhere from the Atlantic to the Pacific; they seem not to dread the bitter cold of the far North and spend much of the year in parts of both Greenland and Alaska. In the interior of our country Ravens have been found nesting in the mountains of central Pennsylvania and have been sometimes seen about the higher ridges of Virginia, West Virginia, Kentucky, and North Carolina.

In Centre County, Pennsylvania, Ravens dwell among the craggy mountain ravines and at times fly out over nearby farms in search of food. During the winter season, when they are hard pressed for nourishment, they will skirt the borders of towns and villages; the writer has seen them sail low over the college buildings that

stand inside the town of State College. However, the Raven spends much of its time in the mountains where ragged rocky bluffs afford it shelter from the wintry chill and provide a nesting place in springtime.

Ravens resemble Crows when viewed from a distance but when seen near at hand their large size readily distinguishes them from the latter species; and in flight the Raven ordinarily soars and the Crow generally flaps its wings. Then, too, the notes of the Raven differ from those of its smaller relative—the Raven's notes are coarse guttural outcries and are usually described as croaking noises. It is said that they have other cries but the writer, in his meager acquaintance with the species, has never heard these.

In a rocky ravine near State College the writer had the pleasure of watching a pair of Ravens in their aerial actions. The day was a beautiful one of early March, 1913 and the birds had almost completed a nest on a cliff nearby. They became annoyed when I approached their chosen abode and scared about in the air above me. As I came quite near to the nest both Ravens croaked repeatedly, endeavoring to voice their disapproval at my presence.

This species of Raven feeds to a great extent upon refuse matter such as dead fish, sheep, cattle, and deer. They are said to visit deserted hunters camps and feed upon waste matter left behind. Besides these things the Ravens devour such insects as grasshoppers and beetles; also the eggs and young of many kinds of birds.

The nesting time of the Raven is early March in our country and early April in southern Canada. Nests are built in trees and on the projecting rocks of cliffs. They are huge affairs of sticks, twigs, coarse weed stalks,

and soft grass blades, and are warmly lined with grasses, moss, and animal hair. Five eggs is the usual number to a set but as many as seven have at times been found. They are greenish in ground color and are spotted and blotched with shades of drab, brown and lavender, and measure 2.92 x 1.38 inches.

The birds are quite attached to a place once selected for an abode and will return to it after being repeatedly disturbed. An old man who has lived nearly all his life near a cliff a few miles distant from State College, Pa., informed me that he had seen Ravens there for more than forty years. Since Ravens are known to attain a great age it is probable that the preceding birds were quite aged.

So far as the writer is able to learn the first authentic set of Raven's eggs from Pennsylvania was taken by Professor R. C. Harlow near State College. Late in February, 1910, he discovered an almost completed nest of this species built on a projecting crag of a thirty foot bluff. The bluff was situated in a gap in a mountain ridge which bordered an open space of comparatively level farm land. On March 1 the nest was again visited and a set of five eggs collected from it. The birds soon had another nest and on March 16 a second set of five eggs was secured. Still the birds were persistent and laid a third clutch, consisting of four eggs. In 1911 the same pair nested, and Professor Harlow secured a fourth set of eggs, five in number.

Through the courtesy of Prof. Harlow the writer was directed to a Raven's nest in southern Clinton County, Pa. A young man, while trout fishing in that region in the spring of 1912, discovered a nest and young birds and brought a report of it back to State College. Accompanied by Prof. Har-

low I took the train to a small town which landed us nine miles from our destination. It was late in the afternoon when we finally approached an abrupt turn in the mountain gulch and emerged into a more open place on the south side of which stood a jagged bluff. By standing in the little mountain road I was able to throw a stone across the gulch and against the cliff. No sooner had the stone struck than out of an indentation flopped a Raven and sailed away over the neighboring hemlocks. The bird soon returned and after one circle about departed and was seen no more. I was soon up to the niche in the damp wall of rocks and peered upon the five green eggs that cozily rested on the lining of green moss and deer's hair. This set is now in the writer's collection and was taken on the day of discovery, March 13, 1913. The eggs are pea green in ground color and are spotted and blotched with shades of brown and drab. The five specimens measure respectively, 1.95 x 1.30; 2.08 x 1.30; 1.90 x 1.30; 1.88 x 1.27; 1.86 x 1.27.

Early in April Prof. Harlow again visited the nest in Clinton County and found that the Ravens had not deposited a second set but that the pair of birds had moved to a smaller bluff farther down the gulch and had there built a larger nest than the first one; it was only about ten feet up and was not protected above by rocks, as is the usual case with nests of this bird.

April 15, the writer revisited the region for the purpose of obtaining some photographs of the nests, the cliffs, and the surroundings; upon reaching the nest number two he found it empty and no Ravens about.

THE BIRD OR THE CAT

Has become a scratching subject which is making the feathers fly in

many a heretofore peaceful neighborhood. Bird lovers who have attempted to establish sanctuaries for their feathered friends have been compelled to revise their visiting lists according to where her Royal Highness, Tabbykins, holds sway.

The bird man who has found to his sorrow that any bird and cat combination means cat-astrophe, even while he is taking the mangled body of the little feathered tenant, that he has worked for months to attract, from the clutches of the innocent-looking, fluffy, four-footed murderer, will be assailed by the cat-owner, who indignantly declares that while other low-bred creatures may catch birds, she knows her own blueblooded darling Fluffykins is too well bred and too well fed to do such a deed!

Naturalists statistically rank the felis domesticus as third in the bird destroying agents, holding every roaming cat responsible for the lives of at least fifty birds a year. A game warden who reports 200 quail killed by a mother cat in less than a year on the game preserve, advocates the wholesale extermination of cats under the supervision of a game warden.

The value of the cat to catch mice or rats is disputed by a bird enthusiast, who maintains that this Nero of the animal world will hush forever the joyous song of any little feathered chorister, simply for his own amusement when not in need of food. When he dines he goes after a cold bird in preference to any other delicacy, and will catch mice or rats only as a last resort to keep from starving.

The most serious arraignment against both the domestic and stray cat is made by the Boards of Health, who have found these animals to be carriers of scarlet fever, diphtheria and other diseases most fatal to their human associates.

A successful business man says that if a cat kills a little chicken in the yard of the average farmer, the cat is made away with. If the four-footed hunter comes home with a quail, he is petted; yet the quail is of greater economic value to the farmer than is either the cat or the chicken. He thinks, for humane reasons, the wild or stray cat left on abandoned farms should be put out of the way.

A cat-a-comb, where feline prowlers may be laid permanently to rest, is considered a necessary adjunct to every bird sanctuary by a bird conservationist, who tried, without success, various methods to prevent cats from killing helpless song and insectivorous birds so valuable to man. Another long sufferer from cat depredations considers a near-by deeper bath, in which to immerse and leave the savage depredators, is the only way in which a bird bath may be maintained.

Some friends of the birds think to license the cat and hold the owner responsible for his pet's destructiveness will solve not only the vexing cat, but also the kitten question. They conclude that if a person pays for a license he will not be so apt to desert his cat, leaving it dependent upon hunting for a living.

Optimists who still believe that cat nature may be educated or restrained, suggest that bells and bright ribbon be placed on Pussy so that a warning will precede her fatal spring. Others advocate that the poles or trees on which bird-houses are placed should be sheathed in tin or wrapped in barb wire to prevent the cat from climbing up and destroying the half-grown nestlings before they can fly to safety. A thorny rose-bush is advised by another humane person; but the ever-present cynic thinks it much better to plant the cat at the roots of the rose-bush where he is sure in time to evolve into harmless fertilizer.

If you will help save the birds from all their enemies, sign the pledge and send it in to The Farm Journal, Philadelphia, when the badge-button of the bird-saving Club will be sent you without cost.

Odd Finds.

April 15, 1913, I found a set of three Red-Shouldered Hawks, two eggs being average size, with almost no markings and the third egg was just about the size of a Sparrow Hawk and had very little marking. First runt Hawk egg I ever found in a good many years collecting.

June 14, 1913, found a set of Cedar Waxwing with four eggs and one of a Black-billed Cuckoo.

Roscoe T. Giles,

Marlboro, Mass.

Books Reviewed.

BIRDS OF OHIO, a revised catalogue by Lynds Jones, M. Sc., October 1903, Ohio State Academy of Sciences.

This catalogue comes to our desk late, eleven and a half years late, but it is none the less a valuable contribution to the literature of the birds of Ohio; being prepared by one of the best known and most thorough of North American systematists in the line of ornithology. It has stood the test of years as a standard authority on the subject and will remain so for a long time to come. It consists of 241 pages, catalogues 299 species under the title of "The Birds of Ohio," 15 species as accidental, 4 as introduced, 18 as hypothetical and 2 as extinct, the Prairie Hen and the Carolina Paroquet, to which of course now may be added, so far as the state of Ohio is concerned, the Whooping Crane, Trumpeter Swan and Passenger Pigeon.

The Knot.

One of our most interesting beach birds is the knot, or red-breasted plover,

as it is sometimes called. Perhaps, also, you have heard of this same bird as the silver or blue plover.

The knot is the largest of the bird family called sandpipers and is said to travel further in its annual migrations than any other birds. Its flights are made in spring and fall, mainly along the Atlantic coast. One exception, however, is made when those coming north in the spring, via Texas and Louisiana, take a route up the Mississippi valley. The period of their stay in the northlands is quite short. The knots go north during the latter half of May and begin to return about the middle of July; then by the middle of October all stragglers have gone South again. It is an old fact that the adults always go South first, and the young follow sometimes later. We do not find this true of wood and upland birds, although several of our coastwise migrants do the same thing.

The knot seems to like much company, and when one finds a flock of these birds he is almost certain to see many turnstones and black-breasted plover mingled in with them. Years ago the knots were easily approached, being unsuspecting and trusting, but now, since they have been slaughtered in such numbers, they are very wary and shy and avoid dangerous places. In the fall, the young, in their migrations southward, are easy victims for the first hunters along the line, but they, too, soon learn caution and become very restless and easily alarmed, rising to flight at the least disturbance. In some sections the knot is referred to as the "placer miner" because of its habit of closely following the waves as they recede from the beaches and picking up the shell fish and other marine food washed up by the surge. By nature they are very persistent birds, and old gunners tell us that when they were less wary



Shore Line Nesting Grounds of Arctic Tern, Matinicus Id., Me.
—Photo by Roscoe I. Giles



Nest and Eggs of Arctic Tern, in situ, on Matinicus Rocks, Me.
—Photo by Roscoe I. Giles

they would return time after time to a good feeding ground even though fired at again and again.—The Classmate.

W. A. Strong.

San Jose, Cal.

We recently had offered to us two sets of four eggs of the Knot taken some years ago in Northeast Greenland within the Arctic Circle, which shows how rare such specimens are.—Editor.

The Loon—On Plum Lake, Wis.

(Gavia Immer)

Nest found July 6, 1914, on top of old muskrat house, just a slight depression in top, eggs, two in number, half in water. Water about foot and half deep around nest in ten feet from shore. Mother slid off nest when we were still one-quarter of a mile away. Eggs well incubated. One of the young Loons in the egg was making a small noise like the mother, could be distinctly heard without holding to the ear.

Second nest found August 15, 1914, on island, in middle of lake, under some bushes, just a slight depression, two very pretty but rotten eggs. Mother must have killed or deserted for some reason. One egg broke and I have the other which is a very fine specimen.

Dudley De Groot.

A Cuckoo Mixup.

Have seen a number of notes on the nesting of the Black-billed and Yellow-billed Cuckoos in the same nest but none of quite like my experience of June 26th. While on my way to the possible site of a rare Warbler passed through a patch of alders and high bush of blue berries and in one of the berry bushes was the nest of a Cuckoo.

At first glance took the two birds on the nest to be young nearly full grown as it would be time for them

to be so, but on closer inspection found one of the birds to be an adult Black-billed and the other an adult Yellow-billed Cuckoo. One bird faced one way and the other the opposite. Both birds remained on the nest until I came to within five feet of it and the Yellow-billed being nearest me I saw that she was trying to cover two of her own eggs while the Black-billed had one of her own and one of the Yellow-bills. The eggs were close together so that neither bird fully covered them, yet they were incubated about a week. The nest itself must have been made by the Yellow-billed as three of the four eggs were hers.

Now the average date here for both birds is May 30th so they are fully two weeks late in that respect. Also the Yellow-billed is not near so common as the other and one or two eggs, rather than three is the common set while three and four would be an average set for the Black-billed. Both species are very destructive; eating eggs and young of all birds up to their size and one need not look for anything in the vicinity of a Cuckoo's nest.

Roscoe T. Giles.

The California Cuckoo.

In the June OOLOGIST I find no reference to the article in the May issue entitled "Home of California Cuckoo Discovered." None of the advanced oologists have taken the trouble to correct the erroneous impression that article conveys to the younger students who lack the advantages of sufficient ornithological literature. The fact is that we are tolerably well acquainted with the summer home and nesting habits of this cuckoo and ignorant only of its winter range. I have no intention of going deeply into the matter and so merely submit some data taken from the Condor but not all the data therein pertaining to this

sub-species. Set of two eggs taken near Santa Paula, Calif., in June, 1904. Set of three eggs July 13, 1907 and another nest July 24, 1910, containing three eggs and one young bird near Compton, Calif. Of the many sets taken by Mr. Jay in Los Angeles County the earliest date was three young May 10, 1901, and the latest date, two eggs August 20, 1911. Of the sets taken by Mr. Schneider near Anaheim his latest is four eggs July 19, 1900. The earliest breeding record of which I have knowledge is the set of two found in San Bernardino Valley, in May, 1882, and recorded in Bendire's *N. A. Birds*. Aside from published records probably every large collection of eggs contains sets. I have had sets in my collection from both California and Colorado.

J. Claire Wood.

There was no intention of conveying the idea that the article in the June OOLOGIST was a description of a FIRST finding of the breeding place of the California Cuckoo. The California Cuckoo is not confined to California, it breeds over a large territory, and its nesting habits are well known.—Editor.

The Economic Value of Birds.

Although we all appreciate the fact that birds are of great value to the agriculturist it seems as if some of our enthusiastic protectionists greatly overestimate their value as weed and insect destroyers and when they base their arguments for more protective laws on statements that are altogether unreasonable and absurd it is only natural that people should be inclined to doubt the wisdom of passing more laws on the strength of mis-stated facts.

Some of our distinguished ornithologists dissect a series of stomachs of some particular species of bird, and

after finding out how many weed seeds and insects are therein contained they figure out how much actual damage the said weeds and insects could possibly do to agriculture under conditions most favorable to them.

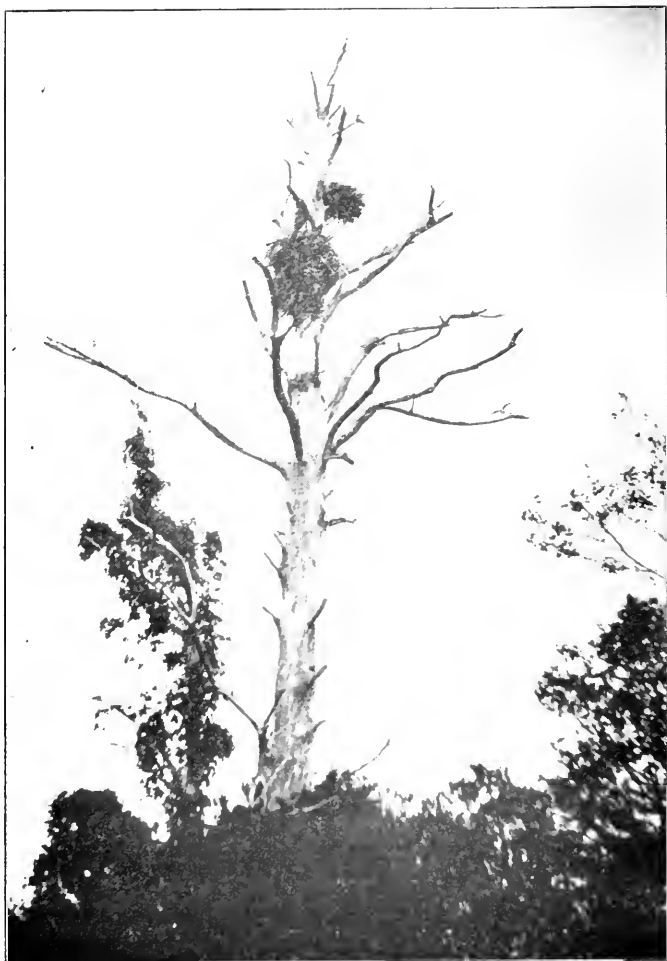
Then the protectionist claims that the birds have saved that amount of value to the country. This is wrong,—for it makes it appear that the good accomplished by the birds is many times greater than it really is. The fact of the matter is that many of these seeds or insects are taken from land where there is such an abundance of them left after the birds are through feeding that the amount destroyed by the birds produces no noticeable effect on the supply.

Many of the seeds or insects would perish from natural causes before they could do any harm, even if the birds did not eat them.

We will grant that if there were enough seed and insect eating birds on a certain area of territory the amount of good they could do would be apparent to anyone, for this has been demonstrated occasionally during a plague of insects when birds have appeared in sufficient numbers to check what would otherwise have been a much more serious damage to the crops.

But to say that this commonly happens is a gross error, for insect-eating birds have never been common enough in this country to accomplish any such purpose, except in a few isolated local cases which only serve to emphasize the fact that it is unusual.

I do not believe that there is a fair minded agriculturist in this country who can truthfully say that there ever was a season during which he found it entirely necessary to protect his crops from weeds or insects, because the birds had made such labor needless.



Two Osprey Nests in one tree, Ketts Point, St. Mary's Co., Md.

—Photo by E. J. Court



Nest and Eggs of Roadrunner, in situ, near Escondido, Calif.
—Photo by J. B. Dixon

Let us stick to good solid facts, for the average man is willing to do what he can to protect the birds because of the charm they add to our woods, fields and waterways, and I think that is the best way to present the matter for his consideration, rather than to encourage him to protect them in the expectation that they will benefit him greatly in a financial way.

If a man tries to protect birds simply as an investment he is very liable to be disappointed at the results obtained, and then he either loses interest in bird protection or else condemns it as a failure.

But this same man might become interested in natural history if it was brought to his attention in the right way and perhaps would help the good cause of wild life conservation during the remainder of his life, as many others have done and are doing now.

Horace O. Green.

Loon and Red-shouldered Hawk at Mud Pond.

On April 11th, 1915, shortly after day break I flushed a male Loon (*Gavia imber*) along the eastern shore of Mud Pond, Passaic County, New Jersey. During the night several flocks of ducks were heard flying and calling over the house from Kampfe's Lake, which lies about a mile to the northwest of Mud Pond. On arising I determined to investigate and attempt to learn the species of these ducks, if possible, and walked down to the pond while it was still dark. On the pond were about fifteen Black Duck (*Anas obscura*) at this time and while walking along the eastern banks and observing these birds in gyratory flights over the pond and playing in its waters, I descended into a small cove in the rocks and the Loon was there quietly swimming about and I had about five minutes to observe him

without arousing his suspicions. However, he finally spied me from my lookout and hastily flew off to the southern end of the pond. This is the second specimen of this bird that I have observed on Pompton Lake on April 14, 1912.

At noon of this day I found at the Pond a completed nest of the Red-shouldered Hawk in a dead maple about forty feet up and the female was setting on same apparently about to deposit the first egg. I climbed up to this nest but the eggs had not yet been deposited. This is the first nest of this species that I have ever located in New Jersey.

A Three-cornered Battle.

On the morning of April 10th in a small swamp in Bloomfield, New Jersey, I came upon a noisy three-cornered battle between a pair of Sparrow Hawks, a pair of Red-headed Woodpeckers and a trio of Starlings for the possession of a decayed maple stump.

In the top of this stump was located a deserted nest of the Flicker of last year and about a foot below the Red-heads had excavated a nest. The Starlings and Sparrow Hawks having both laid claim to the deserted nest, were busily engaged in fighting it out for possession. The Red-heads, on the other hand took decided exceptions to the intrusion of both the other species and were attempting to disperse the combatants for the upper story of their new home.

On April 15th the Hawks apparently by superior strength had driven off both of its rivals and were making elaborate preparations in anticipation of their coming offspring. But this was not to be, as several Italian wood seekers went there one better and carried off the stump on their backs, thus forcing the Hawks to seek other quarters, the whereabouts of which is still an unsolved puzzle.

Louis S. Kohler.

Odd Finds.

April 13, 1913, I found a set of three Red-shouldered Hawk, two eggs being averaged size, with almost no markings and the third egg was just about the size of a Sparrow Hawk and had very little marking. First runt Hawk egg I ever found in a good many years collecting.

June 14, 1913 found a set of Cedar Waxwing with four eggs and one of a Black-billed Cuckoo.

Roscoe T. Giles.

Marlboro, Mass.

Drumming of the Ruffed Grouse.

As none of the few works on Ornithology in my library contain a full description of the familiar drumming of the Ruffed Grouse perhaps a few remarks on the subject may be of interest. The most detailed description I have ever seen is given in Davies Nest and Eggs of North American Birds, Fifth Edition, and according to my observation in one particular it is completely in error. The following quotation is taken from the description given in this work—"The tufts of the neck feathers are elevated, the bird all the while strutting about in the most pompous manner possible to imagine, striking the sides of her body with rapid strokes of her wings.

I have observed a number of these birds in the act of drumming. The procedure is always about the same and never in any instance have I seen a drummer move out of her tracks during the act of drumming or between performances, much less "strut about on the most pompous manner possible to imagine."

His first position in sitting on a log in a rather huddled up attitude facing away from the log not along it and he looks as if drowsy or asleep but if you try to approach too near he is up and away like a flash.

The following two descriptions are taken from my notebook, the first obtained without use of a glass and the second through a good pair of glasses.

April 17th, 1901, watched a Ruffed Grouse drum seven times. Until starting to drum he sits huddled on a log facing at right angles to direction in which it lays. Then he straightens up with tail pressed against side of the log and ruffs out till through drumming. The tip of the wings extended then touch the log for a moment before closing and the tail is raised from the log, spread like a fan. Then the ruff and tail gradually subside and he resumes his first position. The sound is produced by rapid beating of his wings against his sides. The wing beats are long, slow and distinct at commencement but much shorter and quicker in middle and end period of performance.

April 26th, 1913, watched a Ruffed Grouse drum several times through my glass at distance of about thirty yards. He was sitting crossways on a log as usual. After drumming he sits on the log with wings dropped and tips of primaries touching log in front of his toles, tail straight out behind a couple of inches above the log. As he starts to drum he rises to his full height, beating his sides with his wings and brings his unspread tail tight against side of log. In middle of the act his position has same resemblance to that of a Penguin standing erect. As he finishes drumming, ruffs, wings and tail are extended and the last is raised from the log and tilted up in fan shape. He then subsides into his first position of motionless drowsiness which he maintains for several minutes before going through the performance again.

I am unable to say to which subspecies the Ruffed Grouse of this district belong. According to ranges given

they should be 300a and 300b, but they vary from greys to reds with all grad-uation of coloring between in different individuals so that it would require the services of the experts(?) who separated them to identify some of these birds in either sub-species and then, no two identifications of a number of birds by different experts would agree. I am content to know them as Ruffed Grouse. A. D. Henderson.

First Eggs of the Season in Texas.

By R. Graham and G. E. Maxon.

Ft. Worth, Texas.

As it has been cool weather the first part of March, it has made the birds a little late about laying. On March 10th Mr. Emmett Maxon, an egg collector and myself went out on the Trinity River west of here and after tramping around all day we never found any eggs but we run three Screech Owls out of hollow trees, found six fresh crow nests, two old Hawks' nests and saw a Barn Owl have a fight with a bunch of crows. The Vultures were mating but not eggs yet. Again on the 17th of March we went the same round, collecting five sets of crows but no Hawks or Owls. On the 18th we went twenty miles north of here and camped. We made a walk to a large hole in a sand bank and found a Barn Owl there but no eggs; going on up the creek we went to an old Hawk's nest and found that the Horned Owls were there but they had hatched, bringing two big healthy Owls. They were snow white and big enough to pop their bills. The mother bird had plenty of food for them, three headless rats and a rabbit. We never found anything more that day.

" On the 19th we were out early, after walking for several miles we came upon a large Hawk's nest. We found it to be a Krider Hawk about thirty feet

from the ground. I went up the tree and the Hawk circled low with a scream or two, then I reached the nest to find a well marked set of two eggs. From here we went to some rocky hills where Vultures inhabit. We collected one set of two black Vultures. After a hard hunt over the rocks we found that we were a week too early. Then after returning to camp we explored a thickly timbered country in the river bottoms for Owls. While Mr. Maxon was rapping on a tree out flew a Barred Owl; he went up and collected a set of two eggs slightly incubated. Going on up the river we went to some old Hawk's nest and found a Horned Owl setting on one of them. She flew away not even looking back. Here we collected a set of three eggs well incubated. We returned to camp and that evening collected a set of four crows. The next morning we left for Ft. Worth satisfied with our efforts and hope to return again in the near future.

Newspaper Ornithology.

Most of us have at times been amused by previously unknown ornithological facts which appear in current magazines and newspapers and have often wondered where the strange facts could have been obtained. I have myself often laughed over strange statements that I have occasionally come across and recently I have found what I regard as the most ridiculous of ornithological fiction. A friend of mine had been for a hike with the Botanical Society of Western Pennsylvania and during the day had commented to several members upon seeing a Golden-winged Warbler and finding a Phoebe's nest. The next day one of the Pittsburgh newspapers told of the walk in the country and spoke casually of one of the party finding a Golden-winged Pede'e's nest. This, I must confess, is a bird which I have yet to see.

Thos. D. Burleigh.

A Tame Chickadee.

The lack of timidity in the Chickadees is well known to all interested in bird life and I have often enjoyed this trait in these birds. During the latter part of April this year (1915), however, I was out on a tramp in the mountains near State College, Pa., and had an unusually interesting experience with one of them. I was walking along when I noticed several of these birds in the underbrush near me and as I felt just then like resting, I stopped to watch them for a few minutes. This seemed to arouse their curiosity in me for they at once began to approach closer and closer until finally one of them actually flew to the sleeve of my coat and clung there for a few seconds. I had often read of their alighting on people but this was my first experience with one so tame as that and although it almost at once flew to a nearby bush, still I enjoyed its brief visit very much.

Thos. D. Burleigh.

Screech Owl in Winnetka, Ill.
(Otus Asio)

First nest April 9th, 1914, thirty feet up in Oak. Pulled mother off nest and got scratched. One egg, fresh. Came back in a week, still one egg, also one in two weeks. Finally she hatched out this one egg, not laying any more. This is the first Owl's nest I ever found.

Same day. Second nest ten feet up on Elm right above sidewalk, both male and female birds in nest, three fresh eggs.

Same day. Third nest fifteen feet up in Elm tree in park, about two feet down. Mother on nest of five pretty well incubated eggs.

Dudley De Groot.

An Albino Meadowlark.

During the fall of 1914 in the fields adjacent to my home in Bloomfield, N.

J., about 75 *Sturnella magna* were to be seen daily between September 15th and November 1st. In these fields a crop of Canada peas and alfalfa had been raised and harvested and on the ground considerable quantities of both crops had been left after the harvest and these birds fed upon this residue during their entire stay with us.

On October 7th during the afternoon while strolling over these fields I came upon a partly albino bird. This bird was of normal plumage except the tail and wings in which parts more than half of the feathers were devoid of color. This bird during its associations with the others of its kind was continually being attacked and presented a very bedraggled appearance from their frequent onslaughts and was forced into solitude by them at close intervals. But in spite of their pugnacity it always returned to the vicinity of its tormentors and was immediately set upon and driven off. This bird remained in the neighborhood for about ten days during which time I was afforded many opportunities to observe it and its peculiarities.

This is the only specimen of the *Sturnella magna* that I have ever found in which albinism occurred.

Louis S. Kohler.

April 27th, 1915.

A White Robin at State College, Pa.

On the 4th of June of this year, 1915, I came across my first full albino, a Robin. It was feeding on the ground at the edge of a field and was not very timid, allowing me to approach fairly close and giving me a fine view of its plumage. This was entirely a dirty white, there being no markings on it as far as I could see, and I found the appearance of the bird rather odd.

Thos. D. Burleigh.

Thanks, Mr. Preston!

Sometime since we arranged a deal with J. W. Preston of Spokane, Wash-

ington, one of the leading oologists of the Northwest, whereby we came into possession of about 1300 specimens from his very complete collection, including such examples as eggs of the California Condor, American Crossbill, Clarke's Nutcracker, and many other rare ones. This deal has been pending since way last summer and is just closed, and under date of June 11th Mr. Preston writes us from Cheney, Washington, among other things, as follows:

"You have my sincere thanks for kindness in the egg deal."—Editor.

A Bird Loving Country Editor's Find As Told by Himself.

While making a "hike" over the hills north of town Tuesday searching for a Turkey Vulture's nest a party of local oologists consisting of Miss Elmina Annegers, Miss Beulah Hires and Will Plank, found a nest of the Chuck-Will's-Widow. This bird, well known but erroneously called the Whip-poor-will, is quite common here but their nests are very rarely found. This nest was in the heart of the woods, as usual and the gray and lavender colored eggs were laid on the leaves well rounded in shape of a nest. Three photographs of the nest and eggs were taken and they are probably the first ever taken of this subject.

The eggs are now at this office and can be seen by all desiring to. They will be scientifically prepared and then placed in a museum. As an example of their rarity neither of the Kansas City public museums contain their eggs and it is doubtful if any are on display in Arkansas or Missouri.—Sulphur Springs (Mo.) Record, May 28, 1915. Will Plant, proprietor.

Copy.

THE OOLOGIST'S copy box is empty. The last line of copy on hand is used in completing this issue. This is the call of the distressed. Mr. Reader, get busy and send us some copy, much

or little, by return mail, and please regard these as preemptory orders.—Editor.

Our Egg Exchange Adv.

During the last three or four months we have carried a large advertisement relative to the subject of the exchange of birds eggs, offering what we believed opportunities that have never been before offered, and had expected to commence making these exchanges on about the first of June. But owing to the injuries we received in California and the detention from business we have been unable to unpack all of the duplicates that we had. Since the first publication of this advertisement we purchased the Rev. P. B. Peabody collection of birds eggs, one of the most noted collections in America, and it will be necessary, before extensively exchanging, if those who exchange with us are to get the benefit of our full exchange list, that this collection also should be unpacked. It will not be possible to unpack and arrange both these large collections, the Beers collection and the Peabody collection before about the first of September. However, between now and then we will send out to those who have answered our advertisement, partial lists, and have no doubt that we will be able to offer them very perfect material.

In the unpacking of the Beers collection, it is a pleasure to us to note the extreme care with which Mr. Beers prepared his specimens. The Editor has probably packed, unpacked and catalogued more large collections of North American birds eggs than any man living; perhaps than any man that ever lived, and we can testify that Virgil W. Owens of Los Angeles, Philo W. Smith of Eureka Springs, Arkansas, and Fred W. Beers of Stamford, Connecticut, stand pre-eminent as preparators of specimens of this kind.

R. M. Barnes.

A Bibliography of Scarce or Out of Print
North American Amateur and Trade Periodicals
Devoted More or Less to Ornithology

Compiled by Frank L. Burns

1915

1. **The Acadian Scientist.** Devoted to the Interests of Acadian Science Club, Teachers and Naturalists. A. J. PINEO, EDITOR. (Wolfville, N. S.) SUB. 50 CENTS PER ANNUM. 8 vo.

Vol. I, Nos. X and XI, Oct. and Nov., 1883, pp. 8+12 and covers, the only ones I have seen. I am informed by the editor that the second and third volumes appeared under the name of "Canadian Naturalist."

2. **THE AGASSIZ ASSOCIATION BULLETIN.** A Monthly Magazine for The Advancement of Science and the Agassiz Association. Subscription, \$.35 Per Annum. Published by The Bulletin Printing Co., Gilman, Ill. W. A. Crooks, Editor. No. 1 med., No. 2 post, No. 3 and later royal 8 vo. (The above is the title and form under the date of November, 1890, the only number with title cover. Nos. 1, 3 and later are entitled: "THE A. A. BULLETIN," and Vol. II, No. 1, "THE AGASSIZ BULLETIN.")

Vol. I, Nos. 1-6, Oct., 1890-Mar., 1891, pp. (1)-32, (No. 1 unpagued, and pp. 19 and 20 do not exist.)

Vol. II, No. 1, April, 1891, pp. 1-8.

Interesting articles by F. C. Baker, Geo. E. Breninger, (W. A. Crooks) and D. A. Henman.

3. **The Agassiz Association Journal.** W. E. Skinner, Editor. Published Monthly in the Interests of Amateur Naturalists, Students and Collectors. Subscription Rates, 1 year (with 12 premiums) \$1.00. 6 Months (No premiums) 30 cents. W. E. Skinner & Co., 31 State St., Lynn, Mass. Large 12 mo.

Vol. I, Nos. 1-2, June-July, 1885, pp. 1-24 (about half adv., No. 2 with cover).

Continued as "THE AGASSIZ JOURNAL." Items contributed by Walter Hoxie and W. E. S(kinner).

4. **THE AGASSIZ COMPANION.** A monthly magazine devoted to the Natural Sciences (Philately) and the interests of the Agassiz Association. WILL H. PLANK, EDITOR, WYANDOTTE (Kansas City) KANSAS. Subs. 50c. per annum, single copies 5c. 12 mo.

Vol. I, Nos. 1-4, Aug.-Nov. (Dec.), 1886, pp. 1-40, and covers.

Vol. II, Nos. 1-12, Jan.-Dec., 1887, pp. 1-148.

Vol. III, Nos. 1-11 & 12, Jan.-Nov. & Dec., 1888, pp. 1-136.

Guaranteed circulation 1,000 copies monthly. With the final number E. R. Ireland became junior partner. Later with the "AGASSIZ RECORD" consolidated with "THE LITERARY COMPANION," Kansas City, Kansas, under which name it first appeared Feb., 1889. Articles by L. G. Bishop, Amos W. Butler, Prof. Edw. D. Cope, N. S. Goss, Dr. E. R. Heath, Lynds Jones, B. H. Jones, W. L. Morris, L. O. Pinder, M. R. Potter, W. H. Plank, "Scolopax" (Dr. Morris Gibbs), and others.

5. **THE AGASSIZ JOURNAL.** For Curiosity Collectors, Lynn, Mass. Wm. E. Skinner, Editor. W. E. Skinner & Co., publishers. Single Copies, 4 cents; One Year or 12 copies, 40 cents. Lg. 12 mo.

Vol. I, Nos. 3-9, June, 1885-Feb., 1886, pp. 25-92+12+12 (preserving the

sequences of the "Agassiz Association Journal," and including over 50 pp. adv.), with covers, except nos. 8 and 9.

Attempted to fill the unexpired subscriptions of the A. A. Journal, American Osprey, Monthly Echo, Naturalist's Advertiser, Southern Naturalist, and Young Oologist. A circulation of 2,600 copies claimed. Brief notes from youthful egg collectors in the Sept. and Jan. numbers, otherwise an unreliable medium for stamp trading, with little excuse for even the briefest enjoyment of second class rates.

6. **THE AGASSIZ RECORD.** DEVOTED TO all Branches of Natural Science. OFFICIAL ORGAN OF I(OWA) A(SSEMBLY) A(GASSIZ) A(SSOCIATION). Price \$1.00 per Year; 50c Six Months; 25c Three Months. PUBLISHED MONTHLY BY FRANK E. WETHERELL, 819 East High Avenue, Oskaloosa, Iowa. TIMES ELECTRIC PRESS, OSKALOOSA, IOWA. 12 mo.

Vol. 1, Nos. 1-6. Jan.-July, 1888, pp. 74 (p. 43 in duplicate), covers.

With the March-April number the subscription was reduced to 60, and June to 35 cents. The circulation placed at 1,000. A neat little amateur journal, discontinuing after the sixth number. The unexpired subscriptions filled by "The Agassiz Companion." Contributors: Geo. W. Havlin, B. and Lynds Jones, "Scolopax" (Dr. Morris Gibbs), "Senex Fossels," and the last number contains a full page engraving of Louis Agassiz.

7. **The Amateur Collector.** Published monthly by the Cuvier Natural History Club, Salem, Mass. Subscription, 25 cents a year. 7 cents a copy. Demy 8 vo.

Vol. I, Nos. 1-12. May 1, 1886-Apr. 1, 1887, 48 pp., incl. 12 pp. adv., unpp.

Vol. II, Nos. 1-12. May 1, 1887-Apr. 1, 1888, pp. 54, incl. 6 pp. in suppl. and 6 pp. in adv.

Vol. III, Nos. 1-9, May 1, 1888-Jan. 1, 1889, pp. 36, incl. 2 pp. adv.

There may have been later numbers of this neat little paper. The contributions are unsigned and of small value.

8. **The Amateur Naturalist.** A Journal for those who Study Nature from a Love of it. FIFTY CENTS A

YEAR, TEN CENTS A COPY. CHAS. D. PENDELL, BINGHAMTON, NEW YORK. Royal 8 vo.

Vol. I, Nos. 1-6, Jan.-Nov., 1894, pp. 120, 1 pl.

Vol. 2 (II), Nos. 1-6, Jan.-Nov., 1905, pp. 120, 1 pl.

The Amateur Naturalist. A MONTHLY MAGAZINE FOR ALL NATURE STUDENTS. SUBSCRIPTION. 50 cts. PER YEAR. SINGLE COPY, 5 CENTS. CHARLES D. PENDELL, PUBLISHER, ASHLAND, MAINE. Royal 8 vo.

Vol. 3 (III), Nos. 1-8, Jan., Feb.-Dec., 1906, pp. 128.

Vol. 4 (IV), Nos. 1-(4?), Jan., Feb.- (June?), 1907, pp. 64.

Vol. 5 (V), Nos. 1-2, Jan.-Feb., 1908, pp. 32.

Bi-monthly. Unable to ascertain the exact time of suspension. Volume IV doubtless ran to end of year. Contributors: C. B. Brumbaugh, W. B. Davis, Addison Ellsworth, Norman O. Foerster, George Middleton, Chas. D. Pendell, G. W. Story, J. M. Swain, Laura Hoag Taylor and Hattie Washburn.

9. **THE AMERICAN.** SUCCESSOR Galesburg, Ill. Folio

By CHAS. F. GETTEMY. SUBSCRIPTION, 25 Cents for Six Months.

Vol. I, Nos. 1-6, (Nov.?) 1884-May, 1885, 24 pp., unpp. about 6 pp. adv.

Circulation 1,000. H. A. Talbot contributing.

10. **THE AMERICAN MAGAZINE OF NATURAL SCIENCE.** A MONTHLY MAGAZINE DEVOTED TO THE NATURAL SCIENCE. "Go forth, under the open sky, and list to Nature's teachings." SUBSCRIPTION 25c PER YEAR. FRED R. STEARNS, editor. HOWARD H. BROWN, publisher, A Magazine of the Collector, for the Collector and by a Collector. Demi to royal 8 vo.

Vol. I, Nos. 1-12 (7 & 8, 9 & 10, double numbers), June, 1892-May, 1893, pp. 1-88, 10 pp. adv. (No. 6 I have not seen).

Vol. II, Nos. 1-10, June, 1893-Apr. & May, 1894, pp. 11+13+141.

Various cover designs were employed. The circulation of No. 1 was said to have been 1,000 copies. In the second, it is stated that it is published at Old Bridge, N. J. At the first of the year Fred R. Stearns, Sac City, Iowa, became both

editor and publisher, and the circulation is given as 2,000 copies. Volume II, with No. 2, Letson Balliet of Des Moines, becomes part owner, operating under the name of Fred R. Stearns & Co. The subscription was raised to 50 cents with No. 6, and E. J. Shaefer, Milwaukee, Wis., became editor and publisher, and with No. 8 Fred R. Stearns, associate editor. Filled the unexpired subscriptions of "The Collector," F. E. Lux, Pekin, Ill., Dec. 1, 1893, and finally transferred to "The Naturalist," Austin, Texas, in July, 1894. Short articles by C. Barlow, John A. Bryant, William A. Bryan, W. S. Cruzan, James H. Hill, Walton Mitchell, Charles Wallace, Chas. Acey White and others.

11. American Ornithologist and Exchange. DEVOTED TO THE INTERESTS OF ALL COLLECTORS. PAW PAW, ILLINOIS. Published monthly, C. A. Morris, editor and proprietor. J. F. Hoffman, associate editor. Terms, \$1.00 per year in advance. Imperial 8 vo.

Vol. I, No. 1, March, 1891, pp. 1-8. Little if any original matter, articles mostly borrowed from exchanges.

12. American Ornithology. | For the Home and School. | EDITED BY C. ALBERT REED. Vol 1-(6). | WORCESTER, MASS. | CHAS. K. REED, PUBLISHER | 1901-(1906). Med. 8 vo.

(Temporary cover) AMERICAN ORNITHOLOGY FOR THE HOME AND SCHOOL (selected eng. of bird), PUBLISHED MONTHLY, CHAS. K. REED, WORCESTER, MASS. Edited by C. Albert Reed.

5 cts. a copy, 50 cts a year.

Vol. I, Nos. 1-12, Jan.-Dec., 1901, pp. (i) poem by C. E. Gorden "To a Bluebird," (ii) signature A. M. Eddy, Printer, Albion, N. Y., (iii) title, (v-vii) index, (x) col. pl. Bluebird, pp. 1-246 text.

Each number contains desc., habits and illustrations of from 4 to 6 N. A. birds with eggs in full size. The articles are mostly unsigned, the numerous drawings most frequently bear the signature of C. K., or C. A. REED, and many are very artistic.

Vol. 2, Nos 1-12, Jan.-Dec., 1902, pp. 1-386 inc. index.

Subs. increased to 10c a copy, \$1 a year. The original object was to present to the public a complete popular

account of every bird found in N. A. A new department devoted to the "Children and Birds" conducted by Mary Hazen Arnold, abundant photographs of the living bird from various sources, numerous articles from well known bird men, and 11 colored identification charts appeared during the year.

Vol. 3, Nos. 1-12, Jan.-Dec., 1903, frontispiece col. fig. Am. Goldfinch, pp. i-xii, title, index and list of illust., pp. 1-410. Permanent title unchanged except "B. S." following editor's name. The temporary cover changed to include "BIRD MAGAZINE," col. ident. charts 12-23, and a number of col. fig. of birds.

Vol. 4, Nos. 1-12, Jan.-Dec., 1904, title, pp. 1-335 text, 336-342 index. Ident. chart 24, a check list and habitat map, also numerous photo reproductions and from one to three colored plates to an issue.

Vol. 5, Nos. 1-12, Jan.-Dec., 1905, title, pp. 1-308 text, 309-314 index. Colored plates of unequal merit, some remarkably successful.

Vol. 6, Nos. 1-7, Jan.-July-Aug., 1906, pp. 1-176.

According to announcement in June number became bi-monthly with the following issue, which, however, was the last.

13. The American Osprey. .A Monthly Magazine Devoted to Ornithology and Oology. Published by W. G. Talmadge, Plymouth, Conn. Terms year, 30. Lg. 12 mo.

Vol. I, Nos. 1-2, May-June, 1885, pp. 1-12, incl. 5 pp. adv.

Succeeded the "Naturalist's Advertiser," failed to get second class rates and transferred to the "Agassiz Journal." Contributors signed with initials: R. W. F(ord), F. G. K(ibbe?).

14. AMERICAN OSPREY. Paul B. Haskell, Editor and Publisher, Ashland, Ky. Subscription 25c per year. Post 8vo.

Vol. I, Nos. 1-12, Jan.-Dec., 1890, unpp. 4 pp. to issue, with single sheet supplement accompanied No. 7, entitled "American Osprey—Extra," made 50 pages.

A neat little sheet exclusively ornithological, containing short articles by H. F. Andrews, B. S. Bowdish, W. N. Clute, J. V. Crone, A. C. Murchison, L. O. Pindar, Neil F. Posson, C. W. Rowley, J. W. P. Smith-

wick, Thad. Surber, G. W. Vosburg, and others. Circulation said to be 800.

15. **The A(merican) S(ociety) of C(urio) C(ollector's) B(ulletin)**. A Quarterly magazine of Pleasure and Profit for the man or woman with a hobby. Published by Roy Farrell Green, President of the Society, Arkansas City, Kan. Managing Editor, Roy Farrell Green, Associate Editors, Forest Gaines and C. Abbott Davis. Subs. 60c a year, single copies, 15c. Royal 8 vo.

Vol. I, Nos. 1-4, Nov. 15, 1905-Aug. 15, 1906, pp. 48+52+52+40, incl. 42 pp. adv.

Vol. II, Nos. 1-4, Nov. 15, 1906-Aug. 15, 1907, pp. 60+32+48+28, incl. 41 pp. adv.

Vil. III, Nos. 1-3, Nov. 15, 1907-May 15, 1908, pp. 28+25+8, incl. 12 pp. adv.

Suspended upon the decease of the publisher, succeeded by "The Collector's Journal." Ornithological items by H. E. Bishop, Leah Birkheimer, W. L. Griffin, W. I. Mitchell, Will H. Plank, W. E. Snyder, F. May Tuttle, W. W. Worthington, and an original record of the capture of a Carolina Paroquet, near Atkinson, Kan., by Geo. J. Remsburg.

16. **The American Zoologist and Home Journal of Science**. Devoted to Nature, Science and Art. Conducted by J. HOBERT EGBERT, A.M., M.D., Ph.D. (CONTENTS) PUBLISHED MONTHLY BY THE AMERICAN ZOOLOGICAL PUBLISHING CO., HOLYOKE, MASS. Subs. \$1.50 per Year, Single numbers, 15c.

Vol. I, Nos. 1-2, Jan.-Feb., 1896, pp. 57.

Contains a short biography of Audubon, and two articles by Florence Atwood-Egbert entitled "Avian Architecture" and "Perhension of Food by the Avian Race." The Editor writes me from South America that he does not know how many numbers were issued before it suspended for lack of funds and general support.

17. **THE APTERYX** (contents). C. Abbott Davis, editor. PUBLISHED QUARTERLY BY THE ROGER WILLIAMS PARK MUSEUM, OF PROVIDENCE, R. I. Pilgram Press, Providence. Med. 8 vo.

\$1.00 per year, 25c per copy.

(Inside title) **THE APTERYX, A NEW ENGLAND QUARTERLY OF NATURAL HISTORY**.

Vol. I, Nos. 1-3, Jan.-July, 1905, pp. 1-124.

Ornithological articles by C. Abbott Davis, S. F. Denton and H. S. Hathaway. This promising publication is said to have suspended through the lack of support of the city government.

18. **The Atlantic Slope Naturalist**. SUBSCRIPTION, 30 CENTS PER YEAR. EDITED AND PUBLISHED BI-MONTHLY BY W. E. ROTZELL, M.D., NARBERTH, PA. Med. 8 vo.

Vol. I. Nos. 1-6, Mar. and Apr., 1903-Mar. and Apr., 1904 (no. 5 dated Nov.), pp. 1-84, and covers.

The edition of 1000 copies for the initial number was increased to 2000 and 3,000 in succeeding issues. With the third number the subscription was raised to 50 cents, and at the end of the volume it was stated that the supply was very limited at \$1.00 a set. The circulation was largely in the medical profession and among ornithologists. The first number of volume two was for the most part printed, but second class rates being refused, it was not published. The ornithological matter is from the pens of T. G. Gentry, Morris Gibbs, F. A. Hassenplug, W. J. Hoxie, A. R. Justice, Wm. L. Kells, A. B. Klugh, August Koch, W. I. Mitchell, R. C. McGregor, C. L. Rawson, J. H. Reed, E. H. Short, Witmer Stone, R. W. Shufeldt and Mark L. C. Wild.

19. **THE AUDUBON MAGAZINE** ; PUBLISHED IN THE INTERESTS OF THE AUDUBON SOCIETY FOR THE PROTECTION OF BIRDS. [—] VOLUME I (-II) | FEBRUARY, 1887 (-1888), to JANUARY, 1888 (-1889), [—] NEW YORK: | FOREST AND STREAM PUBLISHING COMPANY. Royal 8 vo.

The separate numbers are enclosed in a temporary cover with the following title: "THE AUDUBON MAGAZINE (engraved portrait of Audubon and fac simile of his signature). Published in the interests of The AUDUBON SOCIETY for the PROTECTION OF BIRDS. FOREST AND STREAM PUBLISHING COMPANY, NEW YORK. Annual Subscription, 50 Cts. Single Copy 6 Cts.

Vol. I, Nos. 1-12, Feb., 1887-Jan.,

1888, pp. viii+288, incl. 18 pp. adv. matter.

Vol. II, Nos. 1-12, Feb., 1888-Jan., 1889, pp. vi+264.

Though the name of the editor does not appear, it is understood that George Bird Grinnell, president pro tempore of the Audubon Society, organized February, 1886, had general supervision, with Charles F. Emory, general secretary. Unfortunately this philanthropic movement proved abortive, possibly owing to its connection with a paper devoted to the hunting of game. Each number contains an uncolored and reduced plate after Audubon. The text includes a number of original articles. Biographies of Audubon and Wilson, the latter by Helen V. Austin, and signed papers by J. A. Allen, Geo. Bird Grinnell, Robert Ridgway, G. B. Sennett, and R. W. Shufeldt. Florence A. Merriam's "Hints to Audubon Workers" ran through eleven numbers.

20. **THE AVIFAUNA.** Published by W. A. Hoffman, Los Angeles, Cal. Subs. 1.00 per year, 10c per copy. Royal 8 vo.

Vol. I, Nos. 1-3, Sept.-Oct., 1895, Sept., 1897, pp. 1-48, incl. 2 pp. adv. and excl. covers.

The proceedings of the Cooper Ornithological Club appear in the first two issues. No. 2 contains an unsatisfactory natural-sized, colored plate of the California Condor. No. 3 was published at Santa Barbara. Papers and communications signed by Ralph Arnold, C. Barlow, Lee Chambers, D. A. Cohen, G. T. Dippe, F. S. Daggett, H. C. Ford, H. A. Gaylor, J. Grinnell, P. L. Hatch, O. W. Howard, W. B. Judson, A. I. McCormick, W. Raine, W. E. Rotzell, A. M. Shields, T. S. VanDyke, M. L. Wicke, Jr., O. J. Zahn and others.

21. **THE BAY STATE OOLOGIST,** |—| TO THE | STUDY OF BIRDS, THEIR NESTS AND EGGS. |—| Vol. I, 1888. | PITTSFIELD, MASS. W. H. FOOTE, PUBLISHER. | 1888. 12 mo.

Edited by W. H. Foote. Subscription 50c. per annum, Single copies 5c. each.

Vol. I, Nos. 1-6, Jan.-June, 1888, pp. (i-iv) title and contents, 1-52 text.

Though mainly boyish accounts of collecting trips, there are interesting contributions from J. Warren Jacobs, Wm. L. Kells, E. F. Koch, LeGrande

T. Meyer, A. M. Shields, C. S. Shick, J. A. Singley, Philo W. Smith, Jr., Dr. Strode, and B. T. Taylor. Succeeded by the "O. & O. Semi-Annual."

22. **BIRDS | ILLUSTRATED BY COLOR PHOTOGRAPHY | A MONTHLY SERIAL | DESIGNED TO PROMOTE | KNOWLEDGE OF BIRD LIFE |—| (quotation) |—| CHICAGO, U. S. A. | NATURE STUDY PUBLISHING COMPANY, PUBLISHERS | 1896.** Royal 8 vo.

Vol. I, Nos. 1-6, Jan.-June, 1897, pp. (i-ii) title and preface, 1-224 text, 225-226 index, incl. 60 col. plates.

BIRDS | A MONTHLY SERIAL | ILLUSTRATED BY COLOR PHOTOGRAPHY | DESIGNED TO PROMOTE | KNOWLEDGE OF BIRD LIFE |—| VOLUME II (-III). |—| CHICAGO. | NATURE STUDY PUBLISHING COMPANY. Royal 8 vo.

Vol. II, Nos. 1-6, July-Dec. 1897, pp. (i-iii) title and introduction, 1-240 text, 241-242 index, incl. 61 col. pll.

Vol. III, Nos. 1-6, Jan.-June, 1898, pp. (1-4) title introduction, 6-238 text, 239-240 index, incl. 48 col. pll.

Continued as "BIRDS AND ALL NATURE." Popular and juvenile biographies, mostly unsigned, C. C. and E. K. Marble contributing. The figures of mounted birds from the collections of the Chi. Acad. Science and F. M. Woodruff, are by the three color process. The publishers announced that they had reprinted 10 editions of 5,000 each of some of the numbers.

33. **BIRDS | AND | ALL NATURE |—| A MONTHLY SERIAL | ILLUSTRATED BY COLOR PHOTOGRAPHY. |—| VOLUME IV |—| CHICAGO AND NEW YORK | NATURE STUDY PUBLISHING COMPANY.** Royal 8 vo.

Vol. IV, Nos. 1-6, July-Dec., 1898, pp. (1-4) title and introduction, 6-238 text, i-ii index, incl. 48 col. pll. (16 only being bird figures).

I have not examined Vols. V-VII, after which it continued as "BIRDS AND NATURE."

24. **BIRDS AND NATURE | IN NATURAL COLORS |—| A MONTHLY SERIAL | FORTY ILLUSTRATIONS BY COLOR PHOTOGRAPHY | A GUIDE TO THE STUDY OF NATURE |—| TWO VOLUMES EACH YEAR | VOLUME IX (-XIX). | JANUARY (JUNE) 1901 (-1906) TO MAY (-DEC.) 1901 (-1906). | EDITED BY WILLIAM KERR HIGLEY |—| CHI-**

CAGO | A. W. MUMFORD, PUBLISHER | 203 MICHIGAN AVE. | 1901 (-1906). Royal 8 vo.

Vol. IX, Nos. 1-5, Jan.-May, 1901, pp. (i-i) title, 1-236(+2 index), incl. 40 pll., 20 being birds.

Vol. X, Nos. 1-5, June, Sept.-Dec., 1901, pp. (i-ii) title, 1-236 text, (237-238) index, incl. 40 pll. 20 being birds.

Vol. XI, Nos. 1-4, Jan.-Apr., 1902, pp. 1-192, incl. 32 col. pll., 16 being birds.

Vol. XIV, Nos. 1-5, June-Dec., 1903, pp. (i-ii) title, 1-236 text, 237-238 index, incl. 36 col. pll., 24 being birds or nests.

Vols. VIII, XII, XIII, XV-XIX not examined. Suspended after Apr.-June number, 1906. This publication proved very well adapted to the use of the primary school. The colored figures of birds have little artistic merit, but they are, for the most part identifiable and offered remarkably cheap. A better grouping or arrangement of subject matter, would have greatly increased its usefulness.

25. **Bird News** (eng. of Kingfisher) PUBLISHED BY THE Agricultural Society of California. OFFICES: 717 MARKET ST., SAN FRANCISCO. Devoted to the interests of the Bird Fancier. Frederick W. D'Evelyn, Editor, W. W. Cooley, Business Manager. Bi-monthly, 75 cents per annum, 15 cents a number. Med. 8 vo.

Vol. I, Nos. 1-6, Jan., Feb.-Nov., Dec., 1901, 64 pp. not consecutively paged.

Signed articles on native birds in captivity by W. N. Dirks, E. W. Gifford and H. L. Sefton. Discontinued for lack of time to edit.

26. **THE BITTERN**. DAMARIS-COTTA, ME. Edited and Published by Henry E. Berry. Issued Monthly, 20 cents per Year. The News Publishing Co., J. F. Alldis, Editor and Manager. Approximating dimensions of post 8 vo (nos. 1-2), imp. 8 vo. (nos. 3-6.)

Vol. I, Nos. 1-6, Oct., 1890-May, 1891, unpagd, 24 pp. inc. 2 pp. adv.

Unimportant notes by Henry E. Berry, R. A. Campbell, J. V. Crone, J. V. Denburgh, E. H. Fiske, H. A. Hess, Ora W. Knight, F. S. Nye, E. B. Peck, Dr. A. G. Prill, Robt. T. Young and a few others.

Vol. II (1), Nos. 8-10 (7-9), June, July & Aug.-Dec., 1891, unpagd, 4 pp. to issue. I have not seen no. "9," it was probably published about

Oct. These numbers were issued by C. W. Hillman, Canisteo, N. Y. In No. "10," the editor and publisher states "For various reasons, we have decided to consolidate the Empire State Naturalist and the Bittern." The subtitle: "The Empire State Naturalist. A Monthly Magazine devoted to Natural History. Single Subs. \$1.25." An excellent example of how not to publish a paper.

27. **THE BITTERN**. A Bi-Monthly Publication Devoted to the Interests of the Student Glen M. Hathorn, Editor and Publisher, Cedar Rapids, Iowa. One Year, 50 cents, Single Copies 10 cents. 12 mo.

Vol. I, Nos. 1-3, June-Aug.-Oct., 1900, pp. 1-57 and covers.

Vol. I, No. 1(4) Jan., 1901, pp. 1-16 and cover. Royal 8 vo.

A neat little magazine with short articles by Howard E. Bishop, Albert E. Gamier, Morris Gibbs, Glen M., and Kathleen R. Hathorn, Carl Fitz Henning, P. B. Peabody and Wm. Rolfe. Suspended.

28. **BULLETIN of Massachusetts Natural History** Amherst, Mass. Issued Monthly, \$1.00 per year. Edited and Published by Winifred A. Stearns. Med. 8 vo.

Vol. I, Nos. 1-3&4, Apr.-June&July, 1884, pp. (16+16?) + 24.

The double number contains Stearns' "Birds of Amherst" printed in part the previous year in the "Amherst Record." Suspended.

29. **BULLETIN | OF THE | Michigan Ornithological Club.** | Published in the interests of Ornithology in Michigan. | Grand Rapids, Michigan. L. Whitney Watkins, Manchester, Mich. Editor-in-Chief. Quarterly 50c. single copies 15c. Superroyal 8 vo.

Vol. I, Nos. 1-3&4, Jan.-July&Dec., 1897, pp. 1-48.

Vol. II, Nos. 1-3&4, Jan.-July&Dec., 1898, pp. 1-40, and 2 orig pll.

Vol. III, Nos. 1-2, Jan.-Apr., 1899, pp. 1-23.

April, 1898, T. L. Hankinson became editor-in-chief for the one issue, and was followed by Leon J. Cole up to the temporary suspension one year later.

BULLETIN | OF THE | MICHIGAN | ORNITHOLOGICAL CLUB. | AN ILLUSTRATED QUARTERLY MAGAZINE | DEVOTED TO THE ORNITHOLOGY OF THE | GREAT LAKE REGIO(N). ALEXANDER W. BLAIN

JR. | EDITOR AND MANAGER. | J. CLAIKE WOOD, | ADOLPHE B. COVERT, | ASSOCIATES. | VOLUME IV, | 1903. | PUBLISHED BY THE CLUB AT DETROIT, MICHIGAN. 8 vo.

Vol. IV, Nos. 1-4, Mar.-Dec., 1903, pp. (i-iv) title and index, 1-100.

(Cover) BULLETIN OF THE MICHIGAN ORNITHOLOGICAL CLUB Published Quarterly in the interests of Ornithology in the Great Lake Region. Vol. V(-VI), No. 1(4,-2), March(-Dec., Mar. June), 1904(1905) eng. portrait of Kirtland's Warbler by P. Kinder) DETROIT, MICHIGAN.

Vol. V, Nos. 1-4, Mar.-Dec., 1904, pp. 1-92(+2 pp. index).

Vol. VI, Nos. 1&2, Mar. & June, 1905, pp. 1-31.

Walter B. Barrows is editor of final volume, with P. A. Tavener and Norman A. Wood, Associates. A few illustrations, mostly portraits of local ornithologists. A list of the contributors would be a list of the ornithologists of the State.

30. **California Art & Nature Art & Nature Company**, publishers, No. 863 15th st., San Diego, California. Large paper 8 vo. Price 20 cents, \$2.00 a year.

Vol. I, Nos. 1-12, Dec., 1901-Nov., 1902, columns 162+68, and 11 col. pll. (6 pll. birds) from "Birds and Nature," covers.

It does not appear who was editor, but the text is almost wholly the work of C. R. Orcutt and numbers 9 to 12, August to November, contents and paging are identical with that of "The West American Scientist," volume xiii, numbers 116 to 119, August to November, 1902. Two papers by Frank Stephens on the "Hummingbirds," and the "Pigeons and Doves" appear.

31. **THE CALIFORNIA TRAVELLER AND NATURALIST. A MONTHLY MAGAZINE OF TOURIST TRAVEL, NATURAL HISTORY, POPULAR SCIENCE, WITH SPECIAL ATTENTION TO GEOLOGY, MINERALOGY, CONCHOLOGY, MICROCOPY.** 20 CENTS A YEAR! Published at Napa, Cal. Crown 8 vo.

A Western Monthly with Articles on Popular Science, Western Ways and Wonders. A Note-book for the Collector in Natural History. Official organ for the Audubon Chapter, Agassiz Association. Published by U. L. Hertz & Co.

Vol. I, Nos. 2-v, Mar.-June, 1892, pp. 8+10+12, and covers.

Title form appears to have been changed every issue, the above is from No. 3. Subs. formerly 35 cents. No. 1 probably issued in Feb. and a No. 6 in July? Circulation 1900.

31. **THE CALIFORNIA TRAVELLER AND NATURALIST. A JOURNAL OF THE "NEW EDUCATION."** TRAVEL and NATURAL SCIENCE. Med. 8vo.

Traveller and Naturalist Pub. Co., San Jose, Calif. Subs. 25 cents a year with premiums.

Vol. 2, Nos. 1-7, (No. 4 marked "3") (Sept.?), 1892-Apr., 1893, unpp., 8-13 pp. to issue.

C. Barlow's ("A Trip after Birds' Eggs," "Birds' of the Farallone Islands" and "Out on the Lonely Farallones."), also notes by Oswald B. Cooper, Jesse W. Miller and Isador S. Trostler.

April, 1893, Isador S. Trostler, C. Barlow and R. P. Froelich are associated with Uriah L. Hertz, Conductor.

32. **CANADIAN NATURAL SCIENCE NEWS.** Folio

A Monthly Journal Devoted to Natural Sciences. Edgar R. Boniface, Editor and Publisher, Baden, Ontario. Terms of subscription. Price 50 cents a year. Single copies, 5 cents.

Vol. I, No. 1, Mar., 1897, pp. 1-10.

W. L. Kells' "The Florida Dwarf Bittern," and article by Thomas Ware.

33. **"The Canadian Sportsman and Naturalist.** A Monthly Journal. Montreal, Can., William Couper, Editor; W. W. Dunlap, Assistant Editor.

Vol. I, Nos. 1-12, Jan.-Dec., 1881, pp. 1-96.

Vol. II, Nos. 1-12, Jan.-Dec., 1882, pp. 97-196.

Vol. III, Nos. 1-11&12, Jan.-Dec., 1883, pp. 197-284?

"The first volume of this periodical was devoted largely to sporting matters, particularly hunting and fishing. More space is given in volumes II and III to natural history, with a marked increase in quantity and great improvement in the quality of the ornithological matter."—Auk.

Papers or communications from J. S. Bell, W. G. A. Brodie, M. Chamberlain, (W) C(ouper), W. W. Dunlap, Chas. J. G. Frazer, J. H. Garnier, Harold Gilbert, J. Barnard Gilpin, Wm. L. Kells, J. L. LeMoine, T. MacIlwraith,

John A. Morden, W. H. Rintoul, W. L. Scott, Evert Smith and Ernest D. Wintle.

34. **THE COLLECTOR.** Monthly Journal Devoted to the Interests of Collectors of Specimens of Natural History, etc. Charles & James Keys, Publishers, 926 Ninth Street, Des Moines, Iowa. 50 cents per annum in advance. Med. 8 vo.

Vol. II, Nos. 6-8, Oct.-Dec., 1882; pp. 45-76, covers.

The only numbers seen. Volume III was advertised to begin January, 1883. Notes by J. C. Chesebrogh, Frank W. E., U. S. Grant, C. B. Hurst, all but the first local egg collectors.

35. **THE COLLECTOR.** Monthly 50 Cents A Year. Pekin, Ill. 8 vo.

A Magazine Devoted to the Interest of Collectors. Issued on or about the 15th of each month. Fred E. Lux, Editor and Publisher.

Vol. I, Nos. 2-6, Dec., 1892-Apr., 1893, pp. 12+12+36, nearly half advertisements. I have not seen No. 1.

Bird matter by F. E. Lux and Chas. Avey White. "Discontinued Dec. 1, 1893." Subscriptions filled by the "American Magazine of Natural Sci-

36. **THE COLLECTOR AND EXCHANGE.** Published Semi-Monthly at 115 10th St., Buffalo, N. Y. H. S. Pickett & Co., Editors and Publishers. E. S. A. McLeod, Business Manager. Subscription rates, 50 cents (reduced to 25c with No. 3). 8vo.

Vol. I, Nos. 1-4&5, Aug. 1-Oct.&Nov., 1888, 36 pp. incl. 18 pp. adv.

Mainly philatelic, contains serial on "Birds, Their Habits and History," by "Curio."

37. **THE COLLECTORS' ADVOCATE.** DEVOTED TO ALL BRANCHES OF COLLECTING CINCINNATI, O. 8vo.

EDITED AND PUBLISHED BY CHAS. TARVIN. Terms of subscription. One year, post-paid, 20 cts. Six months 10 cts. Single copies 2 cts.

Vol. I, No. 1, Jan., 1888, 8 pp., unpagged.

"Birds of Central Kentucky," by C. P. T. Notes on 16 common species nesting in Campbell and Kenton counties.

38. **THE Collectors' Illustrated Magazine.** A MONTHLY MAGAZINE Devoted to the Interests of Collectors in all Branches. (contents) EDITED AND PUBLISHED BY E. M. HEIGHT,

RIVERSIDE, CAL. Price 50 Cts. per Annum. Single Copies, 5 Cts. 8 vo.

Vol. I, Nos. 1-2, Jan.-Feb., 1888, pp. 1-27 and covers.

Suspended, unable to get second class rates. Subs. trans. to "The Old Curiosity Shop." Contributions by Wm. L. Kells and H. R. Taylor.

39. **THE COLLECTORS' JOURNAL.** (contents) Lindquist and Lauritzen, Publishers, 3812 Langley Ave., Chicago, Ill. 8vo.

An Illustrated Monthly Magazine of Pleasure and Profit for the Man or Woman with a Hobby. Official Journal for the Chicago Philatelic Society and American Society of Curio Collectors. H. L. Lindquist, Editor and Mgr., 3812 Langley Ave., L. A. Lauritzen, Circulation Mgr., 422 W. 63rd St., Chicago, Ill. Subs. 50c. per year.

Vol. 3, Nos. 1-10, 11&12, Jan.-Oct., Dec., 1909, pp. 1-292, covers.

Items by Ernest Short, "Supt. Identification Ornithology."

A supplement containing official reports is entitled: THE AMERICAN SOCIETY OF CURIO COLLECTORS' YEAR BOOK 1909. Edited and Published by H. L. Lindquist, 3812 Langley Ave., Chicago. Assisted by Mrs. F. May Tuttle, Secretary, Osage, Iowa. Price 25c. per copy.

40. **The Collectors' Monthly.** FOR THOSE INTERESTED IN NATURAL HISTORY, DANIELSONVILLE, CONN. Post 8 vo.

A Monthly Magazine Devoted to Ornithology, Oology and Natural History. Charles H. Prince, Editor and Publisher. Subs. 30c. Single copy 3c.

Vol. 1, Nos. 1-2, Nov.-Dec., 1890, pp. 1-8.

Vol. 2, Nos. 1-12 (6&7 double) Jan.-Dec., 1891, pp. 9-76.

Vol. 3, Nos. 1-5, Jan.-May, 1892, pp. 1-40. The cover sometimes contains editorials or correspondence and may or may not figure in the pagination.

Contributions by Carlton Ball, N. R. Christie, Albert Garrett, R. F. Green, G. L. Howe, Fred T. Jencks, J. Warren Jacobs, L. L. Knox, Rev. J. H. Langille, George A. Morrison, C. C. Purdum, C. E. Pleas, Dr. A. G. Prill, P. B. Peabody, Ernest H. Short, J. A. Singley and Ed. Van Winkle. W. W. Worthington's "Notes on the Birds of Long Island," ran through the entire series. Suspended, the unexpired sub-

scriptions filled by the "Oologists' Journal"

41. **THE COLLECTORS' NATURAL HISTORY MONTHLY**, NEWBURGH, N. Y. 8vo.

(Subtitle) **THE COLLECTORS' MONTHLY**. Devoted to Oology, Ornithology, Entomology. J. B. Peck, Editor and Publisher. Subscription 50c. per annum.

Vol. 3, Nos. 1-4, Aug., 1893 pp. 1-32, covers.

Filling the unexpired subscriptions of the "Collectors' Monthly" and the "Oologists' Journal." Articles by John A. Bryant, B. S. Bowdish, W. S. Cruzen, J. Luhnram, Jr., A. F. Ostrander, B. J. Peckham, C. C. Purdum, T. C. Young and W. W. Worthington.

42. **THE COLLECTORS' NOTE BOOK** | A MONTHLY MAGAZINE | Devoted to | COLLECTORS & COLLECTING | In General. |—| VOLUME I. |—| COMPILED AND PUBLISHED BY | THOMAS BURNETT, | Camden, N. J., U. S. A. 12 mo.

Vol. I, Nos. 1-6, Dec., 1903-May, 1904, pp. 98 incl. suppl.

Vol. II, Nos. 1-5, June-Oct., 1904, pp. 99-198.

Vol. 3 (III), Nos. 1-3, Dec., 1904-Feb., 1905, pp. 1-40.

No doubt there was an issue November, 1904, and also later than February, 1905. The subscription was increased from 20 to 25 cents, with the second volume, and the third published by Robert J. Wythe. It is well printed and with covers. R. W. Shufeldt's paper on taxidermy is the only contribution of interest to the ornithologist.

43. **THE COLLECTORS' SCIENCE MONTHLY**. A Magazine devoted to the Interests of Collectors of Natural History Specimens, Stamps, Coins, Etc., Etc. C. S. M. Publishing Comp'y (Howes & Spaulding, Pubs.) Battle Creek, Mich. 8 vo. Subs. 75 (50) per annum.

Vol. I, Nos. 1-3, Mar.-May, 1886, pp. 42, 14 pp adv., cover.

Contains "My Visit to a Herony," W. E. Ely, M.D.

44. **THE COLLECTORS' STAR PAWNEE**, NEBR. 8vo.

A monthly devoted to collecting. Published by STAR PUBLISHING CO. Subscription, U. S. and Canada, 15c.

Vol. I, No. 2, Mar. (Feb., 1888, 4 pp. unpub.

"Game Birds of California" by N. R. Christie. Notes on 8 species.

45. **THE CURIO BULLETIN** (date) Official Journal of the American Society of Curio Collectors VOLUME I. Edited and Published by H. L. LINDQUIST, Secretary, 3812 LANGLEY AVENUE, CHICAGO, ILL. 8 vo.

Quarterly. Devoted to Natural History and Curio Collecting. 50c. a year, 15c a copy. (Autumn number: Published by the American Society of Curio Collectors, Central Office, 1202 Main St., Osage, Iowa.)

Vol. I, Nos. 1-3, Mar., Apr., Autumn, 1910, pp. 64+24.

Howard E. Bishop, Supt. Identification, Ornithology. Contributions by W. L. Griffin and F. May Tuttle. Suspended. Subscribers transferred to "The Curio Collector."

46. **THE CURIO COLLECTOR** (date) Official Journal of the American Society of Curio Collectors VOLUME I Published by The American Society of Curio Collectors Central Office, 1202 Main St., Osage, Iowa. 8 vo.

Published quarterly at 50 cents a year. F. May Tuttle, Editor-in-chief. Corinne B. Wolverton, Publisher.

Vol. I, No. 4, Winter, 1911, pp. 1-24.

Vol. II, Nos. 1-4, Spring 1911-Winter, 1912, pp. 36+44+28+18.

Vol. III, No. 1, Spring, 1912, pp. 1-24.

Contributions by H. E. Bishop, W. R. Lawshe, W. H. McMillen, W. H. Over, J. L. Sloanaker, F. May Tuttle, Alex. Walter, Mayme Weller, and Corinne Wolverton.

47. **THE CURIO INFORMANT**. NASHVILLE, TENN. Folio.

Published Monthly by James McBride, 1023 South Market St., Nashville, Tenn. Subscription 25 cents per Annum in Advance.

Vol. I, No. 1-4, Aug. 1-Nov., 1889, pp. 4+4+4+4.

Devoted mainly to archæology. Short papers by "Dive-Dapper" and Ira C. Harper.

48. **The Curiosity World**. LAKE VILLAGE, N. H. Folio.

(Monthly) H. J. Miron, Editor. John M. Hubbard, Publisher. Subscription Price, United States and Canada 25c. Foreign Countries 37c.

Vol. I, Nos. 1-12, (Sept.?), 1886, (Aug.?), 1887, (48?) unpub.

Vol. II, Nos. 1-7, (Sept. 1?)-Dec. 1, 1887.

20,000 copies of first 6 nos. sworn to have been circulated. 1-3 out of print almost immediately. Of this volume only Nos. 2, 5, 6 and 8 were examined. With second volume the subscription was raised to 50 and 75 cents and issued on the 1st and 15th of each month. Good articles by Will M. Clemens, Oliver Davie, W. H. Foote, J. W. Jacobs, L. T. Meyer, H. J. Miron, Chas. E. Morrison and L. O. Pindar.

49. **THE CURLEW.** Entered at the Post Office, Orleans, Ind., Nov. 28, 1888, as second class matter. (dates, no., contents) Subscription Price, 25 Cents Per Year. PUBLISHED MONTHLY BY O. P. HAUGER & CO. ORLEANS, INDIANA (cover form No. 4&5) 16 mo.

(Cover form No. 6-7) **THE CURLEW.** (eng of Curlew) Subscription Price, 25 Cents Per Year. Single Copies 3 Cents. PUBLISHED FOR THE WILSON CHAPTER, A. A. J. B. RICHARDS, PRESIDENT, LYND'S JONES, SECRETARY, EDITORS. Published Monthly By O. P. HAUGER & CO., ORLEANS, INDIANA.

Vol. I, Nos. 1-7, Oct, 1888-Apr., 1889, pp. 1-64.

First few numbers organ of the Young Ornithologists' Association. Short papers by E. P. Carlton, F. W. Curtis, J. A. Donald, Lynds Jones, W. A. Miller, Jr., R. M. Strong, H. P. T. Weather, G. L. White and others.

50. **EGGS AND STAMPS.** Post 8vo.

A Monthly Journal issued for the Benefit of ORNITHOLOGISTS AND PHILATELISTS. Edited By STEPHEN J. ADAMS, Cornish, Maine. CHAS. ACEY WHITE, Omaha, Neb., Gen. Agent. 20 Cents Per Annum.

Vol. I, Nos. 1-2, Jan.-Feb., 1894, pp. 1-16. Initial no. not paged. Circulation 500 copies. Bird matter unimportant.

51. **THE EMPIRE STATE EXCHANGE. A MONTHLY FOR COLLECTORS. DEVOTED TO MINERALOGY, Archaeology and GEOLOGY, and to the other Natural Sciences to Philately and EXCHANGES.** (contents) Perrine Bro's & Co., Publishers, Water Valley, Erie Co., N. Y. (cover form of No. 2, No. 1 without cover). Nos. 1-6, 12 mo. later 8 vo.

Ulysses R. Perrine, Editor. Subs. one year, 25c.

Vol. I, Nos. 1-X, Nov., 1889-Oct., 1890, pp. 1-108, incl. 5 pp. adv.

Vol. II, Nos. I-II, Dec., 1890-Jan. 1891, pp. 1-24.

Vol. III, Nos. 1-4, Nov., 1891-Feb., 1892, pp. 1-48.

Of volume I, No. vii, is without cover, and the numbers following have a more elaborate cover with the introduction of the state seal. Possibly there are one more number of the second volume, but I think not. Suspended temporarily. Vol. III has an engraved cover, was published at Eden Valley at 15 cents a year. Discontinued after No. 4. Contributors: Letson Balliet, Geo. McCarthy, J. R. Craigue, C. S. Hammet, James Hill, R. M. Miller and J. Edw. Smith.

52. **THE EXCHANGE.** A paper devoted to Oology, Taxidermy, and Ornithology. Entered at the P. O. of Mendota, Ill., as second class mail matter May 6, 1889. Demy 8 vo.

Published Monthly. Bunker & Park, Publishers and Editors.

Vol. I, Nos. 1-4, Apr.-July, 1889, pp. 32, unpp., incl. about one-quarter space in adv. No. 1 not seen.

Communications signed with initials except that of W. T. Miller. Suspended, subscriptions transferred to "Oologists' Exchange."

53. **THE EXCHANGE, ADRIEN MICH.** Demy. 8vo.

PUBLISHED MONTHLY. C. R. BURR, EDITOR. TERMS ONE YEAR \$.25.

Vol. I, Nos. 1-11&12, (Feb.?)-Nov.& Dec., 1885, (48?), unpp. the last two with covers, over one-third adv.

E. J. Stebbins and Geo. W. Tripp became the editors under the name of The Exchange Publishing Co., and the subscription increased to 35 cents. The last number is really a triple number, "No. 10" on cover, and "No.'s 11 & 12," inside. "Hunting for Eiderdown," anon.

54. **Exchangers' Register.** Baldwinville, N. Y. Published by the Register Publishing Company. Folio post 4 to.

A Monthly Paper, devoted to the interests of Exchangers. J. J. Prouty, editor. SUBSCRIPTION PRICE, One Year, 50 cents; Six Months, 30 cents; Single Copies, 5 cents.

Vol. I, Nos. 1-4, (Mar.?)-June, 1885, unpp. 8 pp. to issue.

File incomplete. An article on "Eider Ducks" by W. E. Matheson.

55. "Familiar Science and Fanciers' Journal" an Illustrated Magazine, devoted to the Student of Nature, and the Interest of Home. Joseph M. Wade, Editor and Proprietor, Springfield, Mass."

Vol. V. Nos. 1-12, Jan.-Dec., 1878 (new series).

Vol. VI, Nos. 1-(12?) Jan.-Dec.) 1879. (new series).

Continued as the "Fanciers' Journal." Not personally examined. Notes by H. T. Gates, C. W. Gidney, Mary H. Hamlin, C. J. Maynard, B. Borsford, F. T. J(encks), "J. M. W." (C. M. Rawson), John H. Sage and William Wood, the latter on "The (Rapacious) Birds of Connecticut," which ran through volume V and most of volume VI.

56. **Field and Forest** | DEVOTED TO | GENERAL NATURAL HISTORY |—| CHARLES R. DODGE, EDITOR. |—| BULLETIN OF THE POTOMAC-SIDE NATURALISTS' CLUB. |—| VOLUME I(-III)|(small eng.) | WASHINGTON: | THE COLUMBIA | PRESS. | 1876(-1878). 8 vo.

Subs. U. S. and Canada \$1.00, foreign \$1.25. (In vols. II and III, the second and third lines of title are altered to: A MONTHLY JOURNAL | DEVOTED TO NATURAL SCIENCES.

Vol. I, Nos. 1-12 (incl. 4 double nos.) June, 1875-May, 1876, pp. iv+96 and 1 ppl.

Vol. II, Nos. 1-12, July, 1876-June, 1877, pp. 5+220 and 3 ppl.

Vol. III, Nos. 1-10, 11 & 12, July, 1877-Apr., May & June, 1878, pp. iv+172 and 3 ppl.

Dr. Coues says in the Salutatory: "With temporary interruption during the late political troubles, the Club has met regularly during a portion of each year since 1856, to devote an evening to the reading of papers, the exhibition of specimens, and the interchange of opinion. Until recently, the meetings were held at the residences of the members in turn, and the host of one evening became chairman of the next." The ornithological notes, papers and communications by J. A. Allen, M. E. Banning, W. H. Ballou, J. J. Checkering, Elliott Coues, H. W. Henshaw, W. L. Jones, Pierre Louis Jouy, Ludovic Kumlein, Robert R. McLeod, D. W. Prentiss, G. H. Ragsdale, W. F. Roberts, Robert Ridgeway, David Scott, R. W. Shufeldt, N. B. Webster and Lester F. Ward, are of

more or less importance as the names would imply. The publication ended with the triple number.

57. **Forest and Field.** GILBERTS-VILLE (EDMESTON—with no. 8), OTSEGO COUNTY, N. Y. 8 vo.

PUBLISHED MONTHLY BY POPE & KELLOGG. WILLIAM POPE, L. J. KELLOGG, EDITORS (WILL POPE, EDITOR ANR PROPRIETOR, with no. 8). Subs. 25 cents, single copy 5 cents.

Vol. 1, Nos. 1-10, June 6, 1892-Mar., 1893, pp. 1-86. (pp. 77-78 not in evidence), no covers.

Especially devoted to ornithology, oology and entomology. Contributions by H. E. Barton, A. E. Bennett, S. O. Bush, Harry W. Clark, Ray Densmore, Ed. Doolittle, Arthur Farmer, Geo. D. French, G. T. Green, H. T. Greene, Charles Jenney, Daniel T. Kissam, Charles McGee, C. B. Parker, Ernest H. Short and others.

58. **THE GOLDEN STATE SCIENTIST.** A Monthly Journal Devoted to Zoology, Geology, Archaeology, Botany, Numismatics and Philately. EDITED AND PUBLISHED BY E. M. HAIGHT, RIVERSIDE, CALIFORNIA. Subscription Price 50 Cents per Year in Advance. 8 vo.

Vol. 1, No. 1, Oct, 1886, pp 1-8 and cover.

Vol. 1, No. 1, Aug., 1887, pp 1-12, (suppressed).

D. L. Foxhall's article on the "Chuck" widow, appeared in the initial number, and in the suppressed number. H. R. Taylor's notes on a collecting trip to Donner, Placier Co., Cal., where he found nesting the Mountain Chickadee, White-headed Woodpecker, White-crowned Sparrow, Western Robin and Blue-fronted Jay. Perhaps my copy is unique! There appears on the front page in the handwriting of the editor, "Do not reprint any of these articles in your paper at present, as I wish to reprint them in the first issue of my new magazine (Collectors' Illustrated Magazine), as they were written for this magazine, none of which were sent out owing principally to the many blunders made in the advertisements and only 450 copies were printed when there should have been 1000."

59. **THE HAWKEYE OBSERVER.** A Monthly Journal of Natural History and Science. Davenport, Iowa. E. K. Putnam, Gus Finger, Editors. Terms:

Three months, 15 cents; six months, 25 cents; single copy, 5 cents. Med. Svo.

Vol. 1, Nos. 1-8, 9, (Apr. ?)-Nov... Dec., 1885 (Jan., Feb., 1886), pp 8 to issue, last with cover.

The first six numbers were published by Chapter 158 of the Agassiz Association, Academy of Sciences, later by the editors, the third being J. P. Hubbell. Contains "Ostrich Farming in California," anon.

60. **THE HAWKEYE ORNITHOLOGIST AND OOLOGIST.** EDITED AND PUBLISHED BY (E. B.) WEBSTER AND (F. D. MEAD, CRESCO, IOWA. Med. Svo. (vol. i, nos. 1-4 and vol. ii, nos. 1-9); superroyal to imperial Svo. (vol. i, nos. 5-12.)

A Monthly Magazine Devoted to Ornithology and Kindred Subjects, and Geology. Subs. 50 cents. Single copy 5c. With No. 11 and 12, published by E. B. Webster. The above title displaced in No. 5, by engraved portrait of Snowy Owl, which in turn gave place to engraved cover with title of "THE HAWKEYE O. and O." and portrait of European Buzzard taken from Coues' Key, Vol. II, No. 2 (erroneously marked "Vol. 2, No. 1," on cover).

Vol. I, Nos. 1-11 and 12, Jan.-Nov. and Dec., 1888, pp. 1-134.

Vol. II, Nos. 1-9 (7 and 8 double), Jan.-Sept., 1889, pp. 1-84. (pp 70-71, not apparent). Suspended, job office and museum destroyed by fire.

Articles by W. C. Brownell, Oliver Davis, W. H. Davis, J. D. Ford, R. M. Gibbs, J. Warren, Jacobs, W. L. Kells, L. O. Pindar, Neil F. Posson, W. E. Pratt, J. B. Purdy, Walter Raine, C. S. Shick, J. A. Singley, Thaddeus Surber, W. S. Strode, E. G. Ward, J. Claire Wood, and others.

61. **THE HOOSIER NATURALIST.** | PUBLISHED FOR THE | ADVANCE-
| MENT of POULAR SCIENCE, |
| WITH | ORNITHOLOGY, OOLOGY |
| AND | TAXIDERMY | AS SPECIAL-
| TIES. |—| VOLUME 1. |—| VAL-
| PARAIISO, INDIANA. | "IDEAL"
STEAM PUBLISHING HOUSE. |
1886-87. Folio (nos. 1 and 2), med.
8 vo (no. 3 and later).

A. C. Jones, R. B. Trouslot, Editors and Publishers. Pub. Monthly at 50 cents a year.

Vol. I, Nos. 1-12, Aug., 1885-July, 1886, pp. (i-iii) title and index. 1-102, incl. 52 pp. advs.

Vol. II, Nos. 1-12, Aug., 1886-July, 1887, pp. 1-170, incl. 2 pp. adv.

Pagination unreliable in several respects.

Circulation said to be 5000 copies. Prof. A. C. Jones retired at the end of 1885, and the subscription increased to 75 cents; reduced to 60 cents in June-Jan. 1887; R. B. Trouslot, Editor and Proprietor. R. B. Trouslot & Co., Publishers. Sold to C. R. Orcutt, Publisher of the "West American Scientist." Among the contributors are Geo. H. Berry, E. L. Brown, W. L. Blatchley, Oliver Davie, Edwin C. Davis, B. W. Everman, Chas. A. Keeler, W. L. Kells, Chas. H. Marsh, Chas. S. McPherson, F. A. Sawyer, A. M. Shields, J. O. Snyder and J. B. Wheeler.

The Hoosier Naturalist, VALPARAISO, INDIANA. Folio.

Published Bi-monthly at fifty cents a year, by Charles Lamson (with second number R. B. Trouslot & Co.)

Vol. III, Nos. 1-6 (4&5 double) Jan.-Nov., 1888 26 pp, incl. 3 pp adv., not consecutively paged.

Revived by permission of the publishers of the "West American Scientist." Circulation of the first number said to be 2000 and of the second number, 10,000 copies. Very little original matter, and that by Albert Garret and Chas. S. McPherson. Continued as the "Naturalist," Kansas City, Mo.

62. **THE HUMMER. DEVOTED TO BIRD LIFE.** PUBLISHED MONTHLY BY J. R. BONWELL, NEBRASKA CITY, NEBR. (cover of first no.)

J. Robin Bonwell, M. A. Carriker, Jr., Editors. 5 cents a copy. By the year 40 cents. (Later numbers) Published on the 28th of each month by THE BONWELL PUBLISHING COMPANY, 821 N. 16th St., Nebraska City, Neb. 50c. a year.

Vol. I, Nos. 1-9, May 20th, 1899-Mar. 28th, 1900, about 24 pp. to issue, incl. covers and advertisements which take up about half. I have not seen Nos. 2-4, Nos. 5&6 are double.

This appears to be the joker of the pack, yet this shabby little periodical of less than 4 by 6 inches, actually obtained second class rates! The covers are variously printed: "First edition," "Subscribers' edition" or "Sample copy edition." The notes are by J. R. B. (onsell), M. A. C(arreriker), Albert Ganier, Barton Nugent, C. H.

Sleight and R. P. Smithwick.

63. **THE HUMMINGBIRD.** Sans Souci, N. C. About 3 x 4 inches.

Devoted to Ornithology and Oology. Edited and published by J. W. P. Smithwick. Subscription rates: 10c. a year.

Vol. I, No. 1, Nov., 1890, pp. 1-8.

The only original note is "The Prothonotary Warbler, Nesting in Eastern N. C." by the editor. This neat, though tiny paper, evidently came from the press of "The Collector," New Chester, Pa., at a price approximating \$1.50 for 250 copies.

64. **INTERCHANGE,** ORLEANS, IND. Med. 8vo.

A Quarterly Journal of Natural History and Collecting News, Comment and Review. Terms of subs. 25 cents per year. Single copies 7 cents each. O. P. Hauger.

Vol. I, No. 1, March, 1896, pp. 1-8 and covers.

In "Two Notable Books" the editor reviews the works of Oliver Davie.

65. **THE INTERNAT'L NATURALIST.** Devoted to NATURAL HISTORY. EDITED AND PUBLISHED BY C. W. HILLMAN, CANISTEO, N. Y., U. S. A. Demy 8 vo.

Monthly. Single subs. \$1.25, Foreign, 12 cents extra.

Vol. 2, No. 5 (pp. 23-26 headlined "No. 4"), Jan., 1892, pp. 21-28, incl. adv.

The "Bittern," "Empire State Naturalist," and "Maine Ornithologist and Oologist," embodied in this slovenly sheet is the last word in inefficiency. Its immediate suspension is to be commended. Contributions by Dr. A. G. Prill, Robert R. Scorso, Geo. P. Shepherd and others.

66. **The Iowa Naturalist** | Volume 1(-2) | Edited by T. J. FITZPATRICK | (Iowa City, Iowa) | 1905(-1906-1909) 8 vo.

It is announced that "The publication is primarily for exchange but subscriptions will be taken at the rate of fifty cents for four issues."

Vol. 1, Nos. 1-4, Jan., Apr., July, Oct., 1905, pp. (ii) + 86. (67-68 not evident), pl. I-VI, (pp. 5-10 printed during August, 1904, and a limited number circulated).

Vol. 2, Nos. 1-4, Jan., 1906, Apr., 1907, July., Oct., 1909, pp. (iv) + 68, pl. I-XI.

Vol. 3, No. 1, Jan., 1911, pp. 24.

Articles on ornithology by Clement L. Webster, "Albinism in Iowa," "Albino Gopher and Albino Prairie Chicken," and "The Passing and Return of the Blackbird in the Middle West."

67. **THE IOWA ORNITHOLOGIST,** | FOR THE | STUDENT OF BIRDS. | (quotation[- Volume I(-III)]- SALEM, IOWA. | DAVID L. SAVAGE, PUBLISHER. 1895 (-1896). (eng. of Owl inserted in vol. iii). Med. 8vo.

(Cover) The Iowa Ornithologist. A Quarterly Magazine Devoted to Ornithology and Oology. PUBLISHED FOR The Iowa Ornithological Association. 40 CENTS PER YEAR.

Vol. I, Nos. 1-4, Oct., 1894-July, 1895, pp. (i-ii) title and index, 1-94+2 pl.

Vol. II, Nos. 1-4, Oct., 1895-Jan., Apr., Oct., 1896, pp. (i-ii) title and index, 1-88+3 pl.

Vol. III, Nos. I-III-4, Jan.-Oct., 1897, pp. (i-ii) title and index, 1-64+3 pl.

Vol. 4, Nos. 1-3, Jan.-July, 1898, pp. 16+18+12 and 2 pl.

Briefful of Iowa bird notes by Iowa ornithologists. Suspended upon resignation of the editor, David L. Savage, and later succeeded by the "Western Ornithologist."

68. **THE JOURNAL OF THE WILSON ORNITHOLOGICAL CHAPTER OF THE AGASSIZ ASSOCIATION.** (crude cut of Owl, nest and young). (CONTENTS) R. M. STRONG, Publisher, Oberlin, Ohio. Demy. 8vo.

Vols. 1-2, Jan. and June, 1893, pp. 16 + 8 and covers.

Constitution, reports and membership list. A continuation of the "Wilson Quarterly."

69. **The Journal of the Maine Ornithological Society.** A QUARTERLY JOURNAL OF MAINE ORNITHOLOGY. "Bird protection, bird study., the spread of the knowledge thus gained, these are our objects." BANGOR, MAINE. Large 12 mo.

C. H. Morrell (Vol. II, J. Merton Swain), Pittsfield (Waterville), Editor. Subs. 25 Cts. per Year. Single number, 10 Cts.

Vol. I, Nos. 1-4, Jan.-Oct., 1899, pp. 1-40.

Vol. II, Nos. 1-4, Jan.-Oct., 1900, pp. 1-41.

THE JOURNAL OF the Maine Ornithological Society, (eng. of Pelican on cover of first number.) Med. 8vo. J. Merton Swain, Waterville (Fairfield), Editor.

Vol. III, Nos. 1-4, Jan.-Oct., 1901, pp. 1-56+1 full page ill.

Vol. IV, Nos. 1-4, Jan.-Oct., 1902, pp. 1-63+2pp. ill. (Subscription raised to 50 cents.)

Vol. V, Nos. 1-4, Jan.-Oct., 1903, pp. 1-59 and 2 pp. ill.

Vol. VI, Nos. 1-4, Jan.-Oct., 1904, pp. 1-81 and 4 pp. ill.

The *Journal of the Maine Ornithological Society* (Seal of the "MAINE ORNITHOLOGICAL SOCIETY. Bird Protection, Bird Study, The Spread of the Knowledge thus Gained. These Are Our Objects.") Editor W. H. BROWNSON, (Vol. XII LOUIS E. LEGGE), Portland, Associate Editor, LOUIS E. LEGGE (Vol. XII: JED F. FANNING), Portland. Published by the Society at 97½ Exchange Street, Portland, Maine (Vol. VIII, subs. raised to \$1.00 a year and 25 cents a copy. Vol. XIII, editors not indicated.)

Vol. VII, Nos. 1-4, Jan.-Oct., 1905, pp. 1-80.

Vol. VIII, Nos. 1-4, Jan.-Oct., 1906, pp. 1-108, and 4 pp. ill.

Vol. IX, Nos. 1-4, Jan.-Oct., 1907, pp. 1-112+3 pp. ill.

Vol. X, Nos. 1-4, Jan.-Oct., 1908, pp. 1-120+3 ppp. ill.

Vol. XI, Nos. 1-4, Jan.-Oct., 1909, pp. 1-96+4 pp. ill.

Vol. XII, Nos. 1-4, Jan.-Oct., 1910, pp. 1-80+5 pp. ill.

Vol. XIII, Nos. 1-4, Jan.-Oct., 1911, 1-70+3 pp. ill.

Discontinued. A file of this journal is indispensable to the student of the birds of Maine as it contains many careful contributions. Vols. II-VII, as a whole, are out of print and command a premium of from \$1.00 to \$2.00. Vols. I and VIII are now worth \$1.00 each.

70. **THE KANSAS CITY SCIENTIST FORMERLY THE NATURALIST. (CONTENTS) ACADEMY OF SCIENCE PUB. CO., Publishers. Room 20 Bayard Building, KANSAS CITY, MO. 8 vo.**

R. B. Trouslot, Editor. Assisted by E. T. Keim (Joseph Sharp, M. D.), E. Butts, David H. Todd and Sid. J. Hare. Subs. \$1.00 per year.

Vol. 5, Nos. 1-12, Jan.-Dec., 1891, pp. 1-192 incl. index pll. 1-III.

Papers contributed by George H. Berry, W. C. Brownell, S. J. H(are), Thomas H. Jackson, Vernon L. Kellogg, Wm. H. R. Lykins, P. B. Peabody, Neil Franklin Posson, R. W. Shu-

feldt and Dr. W. S. Strode. An excellent biography of Elliott Coues, by E. S. Lawton, A desirable publication, lasting only one year. The Official Organ of the Kansas City Academy of Science.

71. **THE LITERARY COMPANION.** Folio.

A MONTHLY REVIEW OF POPULAR SCIENCE AND PHILATELY, IN WHICH IS CONSOLIDATED THE AGASSIZ COMPANION AND THE AGASSIZ RECORD. WILL H. PLANK, Editor. 25 cents a year. To Foreign Countries, 35 cents. Single Copies, 3 cents. Circulation 1000.

Vol. I, Nos. 1- Feb., 1889, 4 pp. to number.

Vol. II, Nos. 1- Mar., 1890, 4pp to number.

Official Organ of the Wyandotte Society of Natural History. Ornithological matter unimportant in the broken file examined.

72. **THE LEIGHTON NEWS,** LEIGHTON, ALA. Post 8vo.

Edited and Published Semi-Monthly on the 1st & 15th of each month by F. W. McCormack. Subscription Price 50 cents per annum.

Vol. I, Nos. 1-(15?), May 17-Dec. 15, 1890, (73?)pp. incl. adv., unpp.

Vol. II, Nos. 1-25, Jan. 1, 1891-Jan. 2, 1892, 200 pp. incl. covers and adv.

Began as a 4 page, 2 column amateur local paper, printed one page at the time on a small hand press, with something like 300 subscribers, it was enlarged to 8 pages on November 1, 1890, by the addition of a colored cover. Beginning with Feb. 1, 1891, (vol. ii, no. 3) "The Notes on Colbert Co. (Alabama) Birds," by F. W. McCormack, continued until the final number, Jan. 2, 1892, from 2 to 5 pages to the issue. 67 pages in all, 156 species were enumerated and annotated. Through the courtesy of Mr. McCormack, I have been enabled to examine his file of this volume, No. 4 being in the original typewritten manuscript. After completing the second volume, the paper was discontinued until Feb. 2, 1894, to enable the editor to attend college, and volume III, number I, appeared as a six column folio weekly newspaper.

73. **THE LOON. (CONTENTS) DEVOTED TO ORNITHOLOGY AND OOOLOGY. THAD. SURBER, Editor. Published Monthly, 50 cents per an-**

num. WHITE SUL(PHUR) SPRINGS, W. VA., LOON PRESS, 1889. Crown 8vo.

Vol. I, Nos. 1-10, Jan.-Oct., 1889, pp. 1-78, incl. 2pp adv., cover.

The initial number became exhausted almost immediately. Nos. 8-10 printed on a better grade of paper. Contributors: F. H. Andrews, S. A. Ball, F. C. Baker, John E. Douglass, Jr., J. S. Griffing, Chas. T. Heppburn, W. L. Kells, W. F. Lewis, Jno. E. Marble, A. McLeod, Chas. L. McPherson, C. W. Swallow, E. B. Webster, J. Claire and Walter Wood.

74. **Maine Ornithologist and Oologist.** GARLAND, ME., 8vo.

Edited and published monthly by H. Staunton Sawyer. Subs., 30c. (with no 5, 15c.; no 10, 25c.) per year.

Vol. I, Nos. 1-12 (no. 3-4 double), Mar., 1890-Feb., 1891, 46 pp., covers with No. 10 and later.

Vol. II, Nos. 1-3, Mar.-May, 1891, 12 pp., covers.

With the April, 1891 number, C. N. Hillman of Canistota, N. Y., became associate editor, and following the May issue it was succeeded by the "International Naturalist."

Short contributions by W. A. Bryan, F. L. B(urns), B. S. Bowdish, J. V. Crone, W. J. Comstock, C. A. Ely, J. W. Jacobs, Geo. Mims, R. R. Scorco, J. W. P. Smithwick, C. O. Trowbridge, Stewart White and others.

75. **MILWAUKEE NATURALIST,** MILWAUKEE, WIS. Med. 8vo.

A Monthly, devoted to Natural History. Edited and Published by Emanuel Senn, 255 Twelfth Street, Milwaukee, Wisconsin. Subs 25 cts. per year. Sample Copies 3 cents each.

Vol. 3, Nos. 1-11&12, Jan.-Nov.&Dec., 1886, 58 pp. incl. 13 pp. adv. unpp., last two issues with covers.

Of considerable value to the ornithologist. William Lawrence Kells' "Canadian Ornithology" ran through Nos. 2-12 inclusive, and L. Brice, G. F. Breninger, Charles Keeler, W. Hull, A. M. Shields, Albert G. Prill, Frank H. Cooper, W. H. Foote, and others contributed notes of interest.

76. **THE MUSEUM-NATURE ART** —AN ILLUSTRATED MONTHLY JOURNAL FOR COLLECTORS OF ALL CLASSES AND YOUNG NATURALISTS. WM. F. FELL & CO., PRINTERS, 1220 Sansom Street, Philadelphia, Pa. SUBSCRIPTION PRICE

\$1.50 PER YEAR. SINGLE COPY, 15 CENTS (engraved cover design). Royal 8vo.

Vol. I, Nos. 1-4, May-Aug., 1885, pp. 1-68.

Merged with the "American Antiquarian," Clinton, Wis. Contains an illustrated article on "Rare and Curious Birds' Nests," by Prof. Thomas G. Gentry.

77. **THE MUSEUM.** | A JOURNAL DEVOTED TO RESEARCH IN NATURAL SCIENCE |— Rates: \$1.00 per year in advance, to all countries. Single numbers, 10 cents. Royal 8vo.

Walter F. Webb, Editor and Publisher, Albion, N. Y. Press of A. M. Eddy.

Vol. I, Nos. 1-12, Nov. 15, 1894-Oct. 15, 1895, pp. (iii)-viii title and index, 5-366 incl. 93 pp adv.

THE MUSEUM. | A Monthly Science Journal. | Rates \$1.00 a year in advance to all countries. | Vol. II, 1895-6. Royal 8vo.

Vol. II, Nos. 1-12, Nov. 15, 1895-Oct. 15, 1896, pp. (i-iii), 5-286, incl. 63 pp. adv.

THE MUSEUM. | A Monthly Science Journal. | Rate, \$1.00 a year in advance to all countries. | PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY THE MUSEUM PUBLISHING CO., WALTER F. WEBB, MGR., | ALBION, N. Y. | Vol. III (—VI), 1896-7 (1899-1900). Royal 8vo.

Vol. III, Nos. 1-12, Nov. 15, 1896-Oct. 15, 1897, pp. (i-iv), 3-190, incl. 68 pp. adv.

Vol. IV., Nos. 1-12, Nov., 1897-Oct., 1898, pp (i-ii), 5-190, incl. 60 pp. adv.

Vol. V., Nos. 1-12, Nov. 15, 1898-Oct. 15, 1899, pp. (i-ii), 3-186, incl. 63 pp. adv.

Vol. VI, Nos. 1-5 (erroneously marked vol. iv in no. 1), Nov. 15, 1899-Mar. 15, 1900, pp. 3-79, incl. 21 pp. adv.

In April, 1898, the subscription was reduced to 50 cents, and single numbers to 5 cents. The publisher of this magazine was a dealer in natural history specimens. The paper was not supported by a large corps of ornithological writers, nevertheless it is ably edited and of greater value than perhaps, it would first appear. The contributors are R. M. Anderson, Emerson Atkins, G. M. Allen, B. Buckenham, C. Barlow, J. H. Bowles, Edw. J. Brown, J. J. Carroll, Adolph B. Covert, Nathan L. Davis, Frederick Davis, Arthur M. Farmer, C. P. Forge, W. S.

Johnson, C. O. Ormsbee, A. G. Prill, C. C. Purdum, W. A. Stearns, James Savage, C. N. Sonne, P. A. Taverner and others. It was announced that with the April number of volume vi, the "Museum" would be combined with "The Naturalist, Farm and Fanciers' Review," edited by H. W. Kerr, Blencoe, Iowa, and published at Albion, N. Y.

78. **The Museum Bulletin**, Lake Village, N. H. Size of 8vo.

(No. 6 and later). MUSEUM BULLETIN DEVOTED TO THE INTERESTS OF ALL CLASSES AND THE PUBLIC IN GENERAL. Foolscap folio. PUBLISHED BY C. W. WILCOMB. Subscription 15 cents per year (12 NUMBERS).

Vol. I, Nos 1-9, (May-) 1886-Jan. and Feb., 1887, pp. 4 to issue, about one-third adv.

Ornithology altogether from exchanges.

79. **THE NATURALIST**. A Monthly Magazine Devoted to Natural Science. 50 CENTS PER YEAR. PUBLISHED BY HERBERT STERZING, AUSTIN, TEXAS. JANUARY (AUG.-SEPT.,) 1894. Large 12 mo.

Vol. I, Nos. 1-8-9, Jan.-Aug.-Sept., 1894, pp. 1-104 and cover. Absorbed the "American Magazine of Natural Science," in July, and transferred to the "Oregon Naturalist" after the double number. Contributors: C. Barlow, J. W. Brown, J. J. Carroll, Geo. H. Davis, P. K. Gillman, Jesse W. Miller, C. C. Purdum, Adolph Stretcher, I. S. Trostler and Curtis Wright, Jr. The most valuable paper is "A List of the Birds of Wise County, Texas," by John A. Donald and R. L. More.

80. **THE NATURALIST**. DEVOTED ENTIRELY TO THE STUDY OF Ornithology and Geology PRICE PER ANNUM, 50c. FOREIGN COUNTRIES, 75c. SINGLE COPIES 5c. "Come and See the Works of God." Psalms LXVI:3. PUBLISHED BY the Naturalist Pub. Co., DES MOINES, IOWA, 1893. 8vo.

Vol. I, No. 1, (no date) pp. 1-8 and cover. Another ephemeral publication by Letson Balliet.

81. **THE NATURALIST**, OREGON CITY, OREGON. (See "Oregon Naturalist," Vol. 1, No. 12 and Vol. 2, No. 1).

82. **The Naturalist**, KANSAS CITY, MISSOURI. Folio.

Devoted to Ornithology, Oology, Taxidermy, etc Published Monthly at 30 cents a year. (No. 10, \$1.00 per year) R. B. Trouslot & Co., proprietors. Editor, R. B. Trouslot (No. 10, Assisted by E. T. Keim, David H. Todd, and Sid. J. Hare.) Published by Milton P. Davis (No. 5, E. R. Ireland; Nos. 6-8, R. B. Trouslot & Co.)

Vol. IV, Nos. 1-10?, Jan., 1889-Oct. ? 1890, pp 1-64?, unpp.

January, 1890, this paper became the Official Organ of the Kansas City (Mo.) Academy of Science, and in October, it became the publisher and proprietor. It is possible that the volume ran to 12 numbers, since its successor did not begin before January, 1891. It is understood that the "Naturalist" was a continuation of the "Hoosier Naturalist." Contains few bird notes, and is of scarcely any value ornithologically.

83. **THE NATURALIST AND COLLECTOR** A MAGAZINE DEVOTED TO THE STUDY OF SCIENCE "YE WHO LOVE THE HAUNTS OF NATURE, LOVE THE SUNSHINE OF THE MEADOW, LOVE THE SHADOW OF THE FOREST,—LISTEN!" PUBLISHED MONTHLY AT ABINGTON, ILLINOIS, BY THE SHOOP PUB. CO Post. 8vo.

P. Wilbur Shoop, Editor. Subs. 75c. per year.

Vol. I, Nos. 1-3, June 1.-Aug. 1, 1895, pp. 1-75 cover.

Suspended subscriptions filled by the "Oregon Naturalist." Contributors: J. R. Brownson, Morris Gibbs, J. D. Gorham, J. K. Keanan, R. Cliff Rice, Chas. Reynolds, B. G., and O. L. Scott, and N. A. Wood.

84. **THE NATURALISTS' COMPANION**. EDITED AND PUBLISHED BY CHARLES P. GUELF, BROCKPORT, N. Y. (cover title of No. 2), 8 vo.

An illustrated monthly published in the interest of Natural history. Single Subscription 50 cents a year. (H. F. Thompson, Indianapolis, Ind., associate editor, May-October, 1886).

Vol. I, Nos. 1-12 (8-9 double), July, 1885-June, 1886, pp. 1-178, incl covers and 3 pp. adv.

Vol. II, Nos. 1-5 & 6, Aug., 1886-Dec. & Jan., 1886-87, pp. 1-88.

May 23rd, 1887, announced suspension and transfer to the "West American Scientist." Contributors: F. H.

Borgholthans, Harry Harris, Arthur J. Howell, W. R. Leighton, F. C. Lusk, G. A. Morris, Chas. D. Oldright, C. D. Pendell, W. G. Roberts, Geo. H. Selover and J. Warren Jacobs ("Birds of Green County, Pa.").

85. **THE NATURALISTS' LEISURE HOUR AND MONTHLY BULLETIN**, A. E. FOOTE, (engraved title) SCIENCE AND PRACTICE, PHILADELPHIA, PA. No. 1223 BELMONT (4116 ELM) AVENUE. Monthly. 50 (75)c. a year (for 12 numbers). 8 vo.

Began January, 1887, by Dr. Foote, in an endeavor to build up a great retail depot of natural history supplies. The subscription was reduced to 25 cents during the fourth year, with a circulation of 7,000, and the 16 pages were doubled by the addition of a second half to each number. Two editions were then published, a subscribers' on heavy paper, and an advertising on light paper.

Ran into the 17th year, at least, the last I have seen is dated Jan., No. 140, 1893. While the press work can scarcely be commended, the contents is more or less interesting to the ornithologist, especially during the earlier volumes; later the extensive lists of scientific literature are its chief value.

86. **THE NATURALISTS' JOURNAL**. Royal 8vo.

A Monthly Paper devoted to Natural History and Science and the cause of the Agassiz Association. Robert T. Taylor, Editor, Frankfort, Philadelphia. Yearly subscribers 50 cents.

Vol. II, Nos. 1-6, (Mar.?) - Aug. 1885, pp. 1-114.

Volume one I have not seen, there were two volumes however, Contains W. T. Damarest's "Audubon."

87. **THE NATURALISTS' QUARTERLY**. A Magazine Devoted to the Interests of Natural History in All its Branches. Published by the Naturalists' Bureau. (George A. Bates), Salem, Mass. Subscription price 50 cts. per year. 8 vo.

Vol. I, No. I, Jan., 1880, pp. 1-40. Contains an article on taxidermy in addition to the usual dealers' catalogue.

88. **THE NATURALISTS' Review**, DEVOTED EXCLUSIVELY TO NATURAL SCIENCE. SHRIEVES & DURLAND, Publishers., BOSTON, MASS. 10c. PER COPY, \$1.00 PER YEAR. Med. 8vo.

Vol. I, No. 1, Mar. 1895, pp. 1-24, incl. cover and adv.

Ornithological matter not original.
89. **THE NATURAL SCIENCE JOURNAL**. (List of Departmental Editors) MANAGING EDITOR, F. G. HILLMAN. (CONTENTS) Published Monthly. The Atlantic Scientific Bureau, 1036 Acushnet Ave., New Bedford, Mass. Annual Subscription \$1.00 Single Copies 10 cents. 8vo.

Vol. I, Nos. 1-2, Mar-April, 1897, pp. 1-60, incl. 9 pp. adv., covers.

Suspended. Contains Dr. M. T. Cleckley's List of the Birds of Georgia. Department of Ornithology and Oology conducted by Prof. W. A. Stearns, Atlanta, Ga.

90. **NATURAL SCIENCE NEWS, | FOR THE | STUDENT OF NATURAL HISTORY. | - | VOLUME I (-II). | - | ALBION, N. Y. | FRANK H. LATTIN, PUBLISHER. | 1895-6. Foolscap folio.**

Vol. I, Nos. 1-52, Feb. 2, 1895-Jan. 25, 1896, pp. 4+208.

Vol. II, Nos. 1-14, Feb. 1-May 2, 1896, pp. 1-60 incl. index.

Suspended. Contains Short's "Birds of Western New York," correspondence relative to "What Has Become of the Bluebirds?" "Penikese-A Reminiscence," and lesser contributions, by J. W. Daniel, Jr., Morris Gibbs, Arthur W. Kirkpatrick, T. G. Pearson, Eugene Pericles, Dr. A. G. Prill, Morris Rice, E. H. Short, C. F. Stone, E. M. Vickers and L. W. Watkins. Subscriptions filled by the "Popular Science News."

91. **NATURE STUDY. | PUBLISHED UNDER THE AUSPICES OF THE | Manchester | Institute of Arts and Sciences | VOLUME IV. 1903-1904. | (seal) | Editor, EDWARD J. BURNHAM. | Associate Editors, | FREDERICK W. BATCHELDER, WILLIAM H. HUSE & | SUSY C. FOGG, THEODORA RICHARDSON. | MANCHESTER, N. H. | 1904. Med. 8vo.**

50 cents per annum in advance. Nature Study Press.

Vol IV. Nos. 1-12, June, 1903-May, 1904, pp. v+240+12 pll.

Vol. V. Nos. 1-2 June-July, 1904, pp. 1-40+2 pll.

The former editor could not supply me with any information other than it had discontinued. The signed articles are by E. J. Burnham, Alice B. Currier, O. M. Meyncke and Stephen D. Parrish.

92. **NATURE'S REALM** A MONTHLY MAGAZINE OF Popular Natural History. WILLIAM C. HARRIS, Managing Editor. SUBSCRIPTION PRICE \$2.00 PER ANNUM. (contents) PUBLISHED BY THE HARRIS PUBLISHING CO. 10 WARREN ST., NEW YORK. J. KLINE EMMET, JR., Pres't. H. R. HARRIS, Sec'y and Treas. Royal 8vo.

Vol. II, Nos. 1-5, Jan.-May, 1891, pp. 1-200.

This magazine appears to be quite scarce, I have seen only a few numbers and do not know how many numbers appeared. Among the contributors are James Cameron, R. M. Gibbs, Frederic Howard, W. M. Kohl and T. O. Russell.

93. **The Nidiologist** Published by HENRY REED TAYLOR | ALAMADA CAL. | (a view of the Sierras with a Condor in the foreground) by P. W. Kahn, | HOME OF THE CALIFORNIA CONDOR. Royal 8vo.

AN ILLUSTRATED MONTHLY MAGAZINE DEVOTED THE STUDY OF ORNITHOLOGY, AND With Special Reference to the Nidification of North American Birds. Subscription (in advance) One Dollar.

Vol. I, Nos. 1-12 (10 and 11 double number), Sept., 1893-Aug., 1894, pp. (iv)+184.

THE NIDIOLOGIST. | ANNUAL SUBSCRIPTION, ONE DOLLAR. | AN ILLUSTRATED MONTHLY JOURNAL | OF | NORTH AMERICAN | ORNITHOLOGY AND OOOLOGY. | - | IT IS ONE THING TO BE POPULAR, IT IS ANOTHER THING TO BE ACCURATE. | THE NIDIOLOGIST IS BOTH IN ONE. | EDITED BY HENRY REED TAYLOR, | Associated with Dr. R. W. Shufeldt. | 150 FIFTH AVENUE, NEW YORK CITY. Royal 8vo.

Vol. II, Nos. 1-12, Sept., 1894-Aug., 1895, pp. (iv)+174+1 col pl. suppl.

94. **THE NIDIOLOGIST** | (An artistic cover design by George E. Howard, in which Dr. Shufeldt's photo of a nest of young Wood Pewees features) | HENRY REED TAYLOR | EDITOR & PUBLISHER | ASSOCIATED | WITH | DR. R. W. SHUFELDT | OF THE | SMITHSONIAN INSTITUTION | OFFICE OF PUBLICATION, | ALAMEDA, | CALIFORNIA | Vol. III; Sept., 1895-Aug. 1896. Royal 8vo.

Vol. III, Nos. 1-12 (4-5 double), Sept., 1895-Aug., 1896, pp. (vi)+150.

Vol. IV. Nos. 1-9, Sept., 1896-May, 1897, pp. 112+1 col. pl.

Suspended, subscriptions filled by the "Popular Science Monthly." The place made vacant by the defunct "O. & O." was almost immediately filled by the "Nidiologist." In December, 1894, the subscription was increased to \$1.50, and so remained the balance of the volume. From March, 1895, to April, 1896, it was published in New York City, following the criticism of Dr. Coues, the superfluous "i" was removed from the title, December, 1895, and marked the advent of a new cover design. Dr. Shufeldt became associated with the editor May, 1895, and severed his connections simultaneously with the withdrawal of the new, and the reappearance of the original cover design. With the beginning of third volume became Official Organ of the Cooper Ornithological Club.

Nos. 2 and 3 of the initial volume became exhausted before April, 1893, as much as \$1.00 being offered for the former, sometime later the publisher offered two sets of Vol. I at \$2.50. According to a circular letter appeal for financial aid, dated Dec. 12, 1896, the subscription list at no time exceeded 600.

95. **The North American Naturalist.** |—| A MONTHLY JOURNAL DEVOTED TO THE SCIENCE | OF NATURAL HISTORY. |—| RATES. | \$1.50 per year (postage prepaid) in the United States, Canada and Mexico. | \$2.00 per year (postage prepaid) in all other countries in the Postal Union. |—| PUBLISHED BY | The Naturalist Publishing Co. | Newark, New Jersey. | COPYRIGHT, 1896 | by The Naturalist Publishing Co. Royal 8vo.

Vol. I, No. 1, Apr., 1896, pp. 1-40, incl. 4 pp. adv. and cover.

Some notes by Nathan I. Davis and Geo. C. Stephens, the former being the editor of the Department of Ornithology and Oology.

96. **NOTES OF RHODE ISLAND ORNITHOLOGY** | EDITED BY | REGINALD HEBER HOWE, JR. | VOLUME I (-III). | BRISTOL, RHODE ISLAND | 1900 (-1903) Med. 8vo.

NOTES ON RHODE ISLAND ORNITHOLOGY, A quarterly publication for the purpose of furthering interest in ornithology in the State of Rhode Island. Published and edited by Reginald Heber Howe, Jr., Address,

Longwood, Brookline, Massachusetts. Terms, seventy-five cents (.75) a year. Single numbers, twenty cents (.20).

Vol. I, Nos. 1-4, Jan.-Oct., 1900, pp. (i) + 26, and covers.

Vol. II, Nos. 1-4, Jan.-Oct., 1901, pp. (i) + 28, and covers.

Vol. III, Nos. 1-4, Jan.-Oct., 1902, pp. (i) + 29, and covers.

The terms for the last two years was one dollar per volume, twenty-five cents for a single number. A Rhode Island classic.

97. **THE OBSERVER NATURAL HISTORY EDUCATION, GENERAL LITERATURE POPULAR SCIENCE**, E. F. BIGELOW, PUBLISHER Demi folio.

PORTLAND, CONN. E. F. BIGELOW. Editor and Publisher, Published Monthly at No. 5 Waverly Ave. Subs. one year fifty cents.

Vol. I, Nos. 1-12, Jan.-Dec., 1890, 96 pp. (pagination began with each number.)

Vol. II, Nos. 1-12, Jan.-Dec., 1891, 96 pp. (pagination begin with each number.)

THE OBSERVER, | A MONTHLY MAGAZINE, | A Medium of Interchange of Observations | FOR | All Students and Lovers of Nature | DEVOTED TO | All Departments of Nature Studies. | E. F. BIGELOW, Editor and Publisher. | ASSOCIATE EDITORS, | M. A. BOOTH, F. R. M. S., MICROSCOPY, LONGMEADOW, MASS. | JNO. H. SAGE, Ornithology, PORTLAND, CONN. | A. W. PEARSON, Entomology, NORWICH, CONN. | C. A. SHEPARD, Botany, New Britain, Conn. | C. A. HARGRAVE, Conchology, Danville, Ind. | F. P. GORMAN, Geology, 103 Knight St., Providence, R. I. | Vol. III (-IV). 1892 (-1893). | PORTLAND, CONN. SUBSCRIPTIONS, \$1 PER YEAR. Med. 8vo.

Vol. III, Nos. 1-12, Jan.-Dec., 1892, pp. (vii)-384, covers.

Vol. IV, Nos. 1-12, Jan.-Dec., 1893, pp. (vi)-384, covers.

THE OBSERVER. | AN ILLUSTRATED MONTHLY MAGAZINE. | A Medium of Interchange of Observations | FOR | All Students and Lovers of Nature. | DEVOTED TO ALL DEPARTMENTS OF NATURE STUDIES | E. F. BIGELOW, Managing Editor and Publisher, | Departments, | THE OUTDOOR WORLD, H. H. BALLARD, E. F. BIGELOW, Editors. | ASSISTED

BY THE FOLLOWING ASSOCIATE EDITORS, | JNO. H. SAGE, ORNITHOLOGY, Portland, Conn. | A. W. PEARSON, ENTOMOLOGIST, Norwich, Conn. | C. A. SHEPARD, BOTANY, New Britain, Conn. | C. A. HARGRAVE, CONCHOLOGY, Danville, Ind. | F. P. GORMAN, BIOLOGY AND GEOLOGY, Providence, R. I. | THE AGASSIZ ASSOCIATION, Edited by H. H. BALLARD, President of the A. A., Pittsfield, Mass. | PRACTICAL MICROSCOPY, Edited by M. A. BOOTH, Longmeadow, Mass. |

Vol. V (-VIII). 1894 (-1897). | PORTLAND, CONN. SUBSCRIPTION, \$1. PER YEAR. Med 8vo.

Vol. V, Nos. 1-12, Jan.-Dec., 1894, pp. (vii)-384, covers.

Vol. VI, Nos. 1-12, Jan.-Dec., 1895, pp. (vii)-144-240, covers.

Vol. VII, Nos. 1-12, Jan.-Dec., 1896, pp. (vii)-700, covers.

Vol. VIII, Nos. 1-8, Jan.-Aug., 1897, pp. 208, covers.

Suspended. Although there were some changes in associate editorship, John H. Sage remained at the head of his department throughout the series, and the three or more pages to a number, of popular ornithology, made up of short articles by various writers, and short notes and comments by the editor, are well edited and authoritative. This periodical is wholly out of print.

98. **The Ohio Naturalist**—EDITORIAL STAFF. EDITORS-IN-CHIEF JOHN H. SCHAFFNER. Vol. I. JAS. S. HINE, Vol. II. F. L. LANDACRE, Vol. III. ASSOCIATE EDITORS: Zoology—F. L. LANDACRE, Vol. I, II. JAS. S. HINES, Vol. III. Botany—F. J. TYLOR, Vol. I. J. H. SHAFFNER, Vol. II, III. Geology—J. A. BROWNCKER. Archaeology—W. C. MILLS. Ornithology—H. F. GRIGGS, vol. I. MAX MORSE, HINES, Vol. III. Botany—F. J. TYLOR, Vol. II. O. E. JENNINGS, Vol. III. ADVISORY BOARD: Prof. W. A. KELLERMAN, Ph. D. Department of Botany. Prof. HERBERT OSBORN, M. Sc. Department of Zoology. Prof. J. A. BOWNCKER D. Sc. Department of Geology. VOLUMES I, II and III. November, 1900.-June 1903.—COLUMBUS, OHIO, PUBLISHED BY THE BIOLOGICAL CLUB OF THE OHIO STATE UNIVERSITY. 1900-1903. Med. 8vo.

THE O. S. U. NATURALIST (cover title of first two numbers).

Annual subscription 50 cts. Single number 10 cts. (raised to \$1.00, single number 15 cents, at the commencement of the fourth year.

Vol. I, Nos. 1-8, Nov., 1900-June, 1901, pp. (vii title and index)+130, pll. 1-10.

Vol. II, Nos. 1-8, Nov. 1901-June, 1902, pp. (131)-298, pll.11-21.

Vol. III, Nos. 1-8, Nov., 1903-June, 1904, pp. 299-452+(vi) title and index to vols. i, ii and iii, pll. 1-21 incl. in pagination

Vol. IV, Nos. 1-5, Nov. 1904-Mar. 1905, pp. 1-114.

A journal devoted more especially to the natural history of Ohio. Published monthly during the academic year, from November to June. Papers by R. L. Baird, Walter J. Derby, Ray Densmore, Charles Dury, Robert F. Griggs, J. C. Hambleton, Lynds Jones, Herbert Osborn ("Mallophagan Records and Descriptions"), Theodore Clarke Smith and J. R. Taylor.

99. "The Old Curiosity Shop. Published by Will M. Clemens, Jamestown, N. Y.

Vol. I, 6 Nos, Dec., 1882-June-July, 1883, 28 pp., 84 columns, 16 ill.

Vol. II, 6 Nos, July-Dec., 1883, 76 pp., 16 ill.

Vol. III, 6 Nos., Jan.-July, 1884, 64 pp., 17 ill."

The Old Curiosity Shop. Jamestown, N. Y. Demy. 8vo.

Published Monthly by W. B. Brockway, at 47 Hazzard Street, Subs. 25 25 cts per annum.

Vol. I(IV), Nos. 1-6, June-Nov., 1886, 24 pp. unpp.

Vol. 1(V), Nos. 7-12, Dec., 1886-May, 1887, 24 pp. unpp.

THE OLD CURIOSITY SHOP. A JOURNAL DEVOTED TO PHILATELICAL, NUMISMATICS, NATURAL HISTORY, ANTIQUITIES & BRIC-A-BRAC.

Vol. 6 (-IX) CONTENTS The Old Curiosity Shop. JAMESTOWN, N. Y. Twenty-Five Cents a Year. (various coin and stamp eng.) Med. 8 vo. (except Nos. 36-38 of Vol. VIII, and Vol. IX entire, which are folio, and lack the characteristic cover form.)

Vol. 6. Nos. 31-34, July-Oct., 1887, pp 8+8+8+12, incl. 14 pp. adv., covers.

Vol. VII, Nos. 35-38, Feb.-Mar, 1888, pp. 8+4+4+16, incl. 4 pp. adv., (nos. 35 and 38 with covers)

Vol. VIII, Nos. 1-11 (whole Nos. 39-

49), Oct., 1888-Aug., 1889, pp. 166+4 (suppl. with No. 5), incl. 46 pp. adv., covers.

Vol. IX, Nos. 1-6, Jan.-Nov. 1890, pp. 36, incl. 11 pp. adv.

August, 1887, Will M. Clemens bought all right and title, removed to San Diego, Cal. and continued the publication under his own editorship, Feb., 1888, C. R. Orcutt being the publisher, for one month, when the latter became both editor and publisher, and continued in the latter capacity after E. M. Haight of Riverside, became editor and proprietor, Oct., 1888 to Aug., 1889. Owing to the ill health of E. M. Haight this magazine changed hands again: B MacDonald, Editor, A. MacDonald, Manager, and published by The Collector Publishing Company, San Francisco, J. A. Eshram, Printer. It ran only six numbers more before suspending, A. MacDonald publishing the last four numbers. The subscription was raised to 50 cents in Nos. 37, 38, 42-45; and 35 cents in 39-41. Volumes I, II and III were scarce at \$5.00 a set in 1888, according to the advertisement. Began as a stamp paper, became more general with the sixth volume and later, until the final volume, which was almost exclusively given to philately. Interesting short papers on birds by R. L. Clutter, R. M. Gibbs, S. Estle Miller, H. A. Talbot, H. R. Taylor and Geo. F. Wittemore. Wm. L. Kells has a series of notes on the "Canadian Wild Birds."

100. **THE OOLOGIST.** ISSUED IN THE INTERESTS OF COLLECTORS AND NATURALISTS PUBLISHED AT UTICA, N. Y. (Vol. I, Nos. 1-2). (Crude wood cut heading by Willard) ISSUED IN BEHALF OF THE SCIENCE WHICH IT ADVOCATES. (Vol. I, No. 3 to Vol. III, No. 12.) Med. 8vo.

S. L. WILLARD & CO., Editors. Publication office at Utica, N. Y. Address all communications to the OOLOGIST, 27 Oneida street, Utica. TERMS: One copy one year (in advance) 50 cents. Five copies \$2.25.

Vol. I, Nos. 1-12 (7-8 double), Mar., 1875-Feb., 1876, pp. 88+2 and 1 pl. (Sept.-Oct. suppl.)+1 (Nov. suppl.)+1 (Dec. suppl.—supplements unpagged.) 30 ill.

Vol. II, Nos. 1-12 (9-10 double), Mar., 1876-Feb., 1877, pp. 92+1 (index), pp. 73-74 (Nov.-Dec.), and 83-84 (Jan.) are

marked "Supplements," also bound in with the March number, is an unpagged "First-annual Report of the Am. Oological Society," occupying a single page. 5 ill.

Vol. III, Nos. 1-12, Mar., 1877-Feb., 1878, pp. 102, incl. 2 pp. index. (pp. 17-18 (Apr.) and 83-84 (Dec.)) "Supplements," and p. 62 erroneously marked "52.") 8 ill.

The Oologist: | A Monthly Journal devoted to the Study of Birds and their Eggs. |—| Edited by S. L. WILLARD. |—| VOLUME IV. | (woodcut of an egg) | UTICA, N. Y.: | Published at No. 27 Oneida street. Med. 8 vo.

Vol. IV, Nos. 1-12, Mar., 1878-Summer, 1879, pp. iv-100+1 col. pl., (temporary suspension following the July issue until January, due to insufficient financial support) covers, 6 ill.

THE OOLOGIST. | A Monthly Journal | DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EGGS. |—| Edited by JOS. M. WADE, S. L. WILLARD. |—| VOLUME V. | (cut of egg) | ROCKVILLE, CONN.: | PUBLISHED BY JOS. M. WADE. Med. 8 vo

Vol. V, Nos. 1-12, July, 1879-Feb., 1881, pp. iv-96 (suspended after Nov., 1879, until Aug., 1880, Oct.-Nov. numbers bound under one cover.) 3 ill.

This is the pioneer amateur oological periodical of America. S. L. Willard, a typical American boy of about sixteen years, after conducting an ornithological department in "The Repository," a western amateur paper, became convinced of the need of a serial devoted to birds and their eggs, and without help, no money and little experience, engaged the services of an unemployed printer, and began the publication of this little paper. The first two issues were not only typographical failures, printed with coarse type on thin paper with scant margin and the headings all set up in type, but the subject matter trite and of too manifold nature, needless to state it received severe criticism, and the discouraged editor at a loss to pay the printer, withdrew the publication. However, several inquiries for sample copies from surprisingly remote localities and one or two press notices, awakened a fresh determination to proceed. For the third number, he invested in a bit of engravers' boxwood and carved a heading, at the

same time he added a small font of type, sufficient to compose a single page, and negotiated with a boy friend to print it on his press, one page at a time. Five numbers were issued in this way during spare hours from school, when his friend having disposed of his press, it became necessary to do the printing elsewhere. From his plans, a local blacksmith built a press with a capacity of just one page, on which the next four numbers were printed.

It must be remembered that the editor was under the necessity of composing the bulk of the reading matter, particularly in the early volumes before the paper had many contributors. Beside writing under his own name, he published his own compositions in the form of essays for the editorial pages. Under the non de plume of "Ovum" he published a series of papers entitled "Birds' Nests and Eggs," which ran for three years, having for its inspiration a similar series by J. A. Whitley in "Amateur Age." Considerable also appeared over the name of "Avis." Over fifty woodcuts during the series, most of them wholly the work of this enthusiast (except a few bearing the signature of S. Pryor, sculptor) very crude work of course but showing great industry. Volume II, and most of volume III were printed on a large amateur press he had purchased, and the balance up to the first four numbers of volume V, on a better and larger press which he also used for job printing. Beginning with the fourth volume, the periodical attained to the dignity of a cover and an engraved design which is best described in the words of the proud engraver: "In the foreground, across the lower corner of the cover, appear three eggs strung upon a straw. A pair of Hawks have chosen a delightful position for their nest in the tree near the shore of the lake; the motherly Duck has nested early and is leading her little family into the reeds; the Egreit and Sandpipers are indispensable adjuncts to pleasure upon water; the Ruffed Grouse are both drumming; the Bubo virginianus knows very little about any Snowy Owl; a bird of prey, probably an Eagle, appears just over the horizon, a number of graceful Swallows skim through the air, and the Downy Woodpecker has found some-

thing upon the tree that seems to engage its attention."

On January, 1876, the subscription was reduced to 40 cents, and raised to 60 cents at the beginning of volume IV. With the November, 1879, issue, Jos. M. Wade undertook its publication, S. L. Willard becoming assistant editor, and the last eight numbers were issued from the office of a regular printer, with Rockville, Conn., as the place of publication. The five volumes required just six years to publish. This little magazine, though often quoted, is quite scarce. I know of only two or three complete sets in existence, one set collected recently, after much personal energy, advertising and correspondence, represented an outlay of almost \$50 in cash. The first three volumes are, of course, the scarcest: worth from \$10 to \$15 each. The privilege of examining a complete file I owe to Mr. R. M. Barnes.

Probably the bulk of the contributions should be accredited to the editors. Among the most prominent or prolific are: W. T. Allen, Dr. H. A. Atkins, W. H. Ballou, T. M. Brewer, G. A. Boardman, A. W. Butler, C. E. Cole, W. H. Collins, A. Covart, W. Couper, F. J. Davis, D. H. Eaton, M. B. Griffing, C. W. Gunn, E. S. Hasbronck, H. Hale, M. Hardy, D. Hatch, C. A. Hawes, A. Herbert, J. Holzaphfel, J. S. Howland, E. Ingersoll, C. L. Rawson (the famous "Jennie) M(ay) W(hipple)" until uncovered by J. P. Norris), J. T. Jones, F. T. Jencks, F. H. L(attin), C. J. Maynard, H. M(errell), C. A. Morse, W. H. Nash, B. J. Peckham, G. H. Ragsdale, J. H. Severance, J. H. Smith, F. A. S(ampson), D. D. Stone, V. M. Firor, H. G. Vennor, C. W. Stromburg, W. T. Warrick, E. E. W(intle) and W. Wood. With Volume VI, the publication became known as the "Ornithologist and Oologist."

101. **The Oologist's Advertiser.** DANIELSONVILLE, CONN. Size of 8vo.

A monthly Paper devoted to the study of birds, their nests and eggs. CHARLES H. PRINCE, Editor and Publisher. Subs. 15c. single copies 2c.

Vol. I, Nos. 1-3, Aug.-Oct., 1890, pp. 16(?), covers.

No. 1 not seen. Discontinued,

subscriptions filled by "The Collectors' Monthly."

102. **THE OOLOGISTS' EXCHANGE.** AUSTIN, ILL. (nos. 8-12: SHARON, WIS.; vol. II, NEW YORK). Size of post 8vo.

Published Monthly at 15 cents a year (nos. 8-12, 10 cents, and vol. II, 20 cents a year). T. VERNON WILSON (nos. 8-12, DICKINSON & DURKEE; vol. II, ARTHUR E. PETTIT).

Vol. I, Nos. 1-12, Jan.-Dec., 1888, 52 pp. unapp., incl. 4 pp. adv.

Vol. II, Nos. 1-11, Apr., 1889-Feb., 1890, pp. 44+2 pl. unapp. incl. 2 pp. adv. Suspended. Notes by F. C. Baker, W. C. Brownell, E. F. Gamble, Morris Gibbs, W. E. Hillman, W. Ingram, V. L. Lewis, LeGrande T. Meyer, F. H. Nutter, T. G. Pearson, L. N. Rossiter, Thad. Surber and E. B. Webster.

103. **THE OOLOGIST'S JOURNAL, POUGHKEEPSIE, N. Y.** Size of 8 vo. A MONTHLY MAGAZINE, DEVOTED TO ORNITHOLOGY AND OOLOGY. Edited and Published by FRED W. STACK. Subs. 25 cents per annum, Single copies 3c. each.

Vol. I, Nos. 1-3, Jan.-Mar., 1891, pp. 1-12, incl. 3 pp. adv.

Vol. II, Nos. 1-2&3, Jan.-Feb.-Mar. Apr., 1892, pp. 1-14 and covers.

After the third number of the first volume it was merged with the "Sentinel Magazine," which proved a failure. With the double number of the final volume, the publishers were Stack & Peck, Fred W. Stack, Editor, and Jesse W. Peck, Associate Editor. Suspended, the subscriptions filled by the "Collectors' Monthly." Notes by I. U. Kinsey, F. W. McCormack, J. W. P. Smithwick, C. B. Vandycook and the editors.

104. **THE OREGON NATURALIST.** An Illustrated Monthly Devoted to Ornithology, Oology, and other Branches of Natural History (eng. of European Avocet by Cheney after Brehm) Single Subscription 25 Cents Per Annum. G. B. CHENEY, Editor, OREGON CITY, OREGON: NATURALIST PUBLISHING COMPANY, 1894 (cover). Med 8vo.

Vol. I, Nos. 1, 2, 12, Sept., Oct., Dec., 1894, 24+16, incl. 9 pp. adv.

Vol. 2, Nos. 1-12, Jan.-Dec., 1895, pp. 172, incl. 1 pp. adv.

Vol. III, Nos. 1-12, Jan.-Dec., 1896, pp. 160.

Vol. IV, Nos. 1-9, Jan., 1897-Jan., 1898, pp. 68.

"Guaranteed circulation 3000." This magazine had quite a checkered career. With the December, 1894, number, it was consolidated with "The Naturalist" of Austin, Texas, and that issue and vol. 2, no. 1, only appeared under the latter title; the subscription was advanced to 50 cents, February, 1895, A. B. Averill became editor, and in March it announced that the North-Western Ornithological Association had made it the official organ; Dr. C. C. Purdum became associated with the editor, which he retained until it again changed hands November, 1896, to John Martin, Palestine, Oregon, and the subscription lowered to 25 cents, and the Avocet engraving was replaced by the seal of the State of Oregon for the first four numbers of the last volume. Suspended.

Among the contributors are A. B. Averill, Fred. H. Andros, H. T. Bohnman, Geo. F. Breninger, D. A. Cohen, W. W. Cooke, W. Edwards, E. F. Hadley, C. B. Hadley, Wm. L. Kells, C. F. Pflinger, A. L. Pope, R. P. Smithwick, Ray Stryker and R. W. Williams, Jr.

105. **THE ORNITHOLOGIST.** TWIN BLUFFS, WIS. Svo.

A Monthly paper of Natural History. Especially devoted to the study of Birds, their nests and habits. Edited by C. L. McCOLLUM. TERMS: 35 cents per year. Sample copies, each 4 cts.

Vol. I, Nos. 1-7, May-Dec., 1885, pp 60, incl. 10 pp. adv. (nos. 4-7 with covers).

Probably complete. The "Naturalists' Companion," Feb., 1886, stated this publication had suspended. Wm. L. Kells wrote a serial on "Canadian Wild Birds," and C. L. McCollum on "Wisconsin Birds," also papers by C. H. Andros, L. Hayter, Charles H. Marsh and A. M. Shields.

106. **The ORNITHOLOGIST and BOTANIST.**—VOLUME (I-II). BINGHAMTON, N. Y. JOSEPH E. BLAIN & Co., 1891(-1892). Royal Svo.

Joseph E. Blain, Editor and Publisher. Subs. 20 cents, Single copies 3c.

Vol. I, Nos. I-XII, Jan. 1-Dec. 1, 1891, pp. 96 and covers.

Vol. II, Nos. 1, 2, 6, Jan., Feb., July 1, 1892, pp. 1-15, and 25-32, (no. 2 without cover). The pagination would seem to indicate an issue between nos.

2 and 6, probably a no. 3 for June, but no more according to my information.

With the fourth number, Willard N. Clute became editor, and the price was increased to 35 cents. At the end of the year 300 copies of the title and index were printed, indicating about the circulation at this time. It was then transferred to Letson Balliet and William S. Sanford, Des Moines, Iowa, and they became the editors and publishers, raising the subscription to 50 cents. The periodical speedily degenerated under the new management. Extravagant claims were made in respect to the circulation. After publishing a single number, the price was advanced to \$1.00 a year, 10 cents a copy, and William S. Sanford & Co. editors and publishers; and the final issue with the Ornithologist and Botanist Publishing Co., just previous to the transfer to the "California Traveler and Naturalist." Contributors: B. S. Bowdish, H. C. Campbell, W. N. Clute, Edward Fuller, W. L. Kells, R. H. Lawrence, J. B. Lewis, H. E. Miller, A. H. Norton, E. B. Peck, N. F. Posson, W. S. Strode, J. M. Swain and Stewart E. White.

107. **THE ORNITHOLOGIST AND ZOOLOGIST.** (eng. of Screech Owl) VOL. VI (-XVIII). 1881 (-1893). — BIRDS: THEIR NESTS AND EGGS. — PUBLISHED BY JOSEPH M. WADE, NORWICH, CONN. Royal 8 vo.

JOS. M. WADE, Editor, S. L. WILLARD, Ass't Editor. \$1.00 per annum, 10 cents single copy. Index 10(12) cents.

Vol. VI, Nos. 1-12, Mar., 1881-Feb., 1882, pp. (viii)+96, (first four numbers published at Rockville, Conn.)

Vol. VII, Nos. 13-24, Mar.-Dec., 1882 (extra nos. May 15 and Dec. 15, to complete vol. in year.), pp. 97-192, (with Nov. no. published at Boston.)

Vol. VIII, Nos. 1-12, Jan.-Dec., 1883, pp. 96.

Vol. IX, Nos. 1-12, Jan.-Dec., 1884, pp. (vi)+152, (published at Pawtucket, R. I.)

Vol. X, Nos. 1-12, Jan.-Dec., 1885, pp. (viii)+192.

Vol. XI, Nos. 1-12, Jan.-Dec., 1886, pp. (viii)+192, (published at Boston, Mass.)

Vol. XII, Nos. 1-12, Jan.-Dec., 1887, pp. (xi)+208.

Vol. XIII, Nos. 1-12, Jan.-Dec., 1888, pp. (vi)+192.

Vol. XIV, Nos. 1-12, Jan.-Dec., 1889, pp. (vi)+188.

Vol. XV, Nos. 1-12, Jan.-Dec., 1890, pp. (vi)+192.

Vol. XVI, Nos. 1-12, Jan.-Dec., 1891, pp. (iv)+184, (published at Hyde Park, Mass.)

Vol. XVII, Nos. 1-12, Jan.-Dec., 1892, pp. (iv)+187, incl. 5 pp. adv.

Vol. XVIII, Nos. 1-8, 9 and 10, Jan.-Aug., Sept. and Oct., 1893, pp. 144, incl. 6 pp. adv.

S. L. Willard retired at the close of volume VI, and with volume IX Frank B. Webster became publisher, and M. Eaton Cliff assumed the editorship as a successor to Jos. M. Wade. Volume XI, Frederic H. Carpenter, Rehoboth, Mass., became editor, with J. Parker Norris as Oological editor, and Wright & Bates, Entomological editors; Carpenter retired May, 1887, and Wright & Bates, the professional entomologists, July of the same year, when it was published by the Bristol Ornithological Club until the end of volume XII, after which Frank B. Webster resumed control editorially, with J. Parker Norris, Philadelphia, and Frank A. Bates. The last two volumes published by the Frank Blake Webster Company, and after no. 1, 1892, Frank A. Bates, name does not appear.

Volume XVII, the long familiar engraving of the Screech Owl on the permanent title page gives place to that of an Osprey scene, one of the same appearing on the cover since December, 1882, drawn by Edwin Sheppard of Philadelphia. The "O. & O." boasted a large and most loyal clientelage, both amateur and the trade, a list of whom would include the majority of the field collectors of the period. The deterioration began more than a year previous to the final issue of the triple number. A limited edition only of Vol. VI was printed and it was soon out of print, VII and VIII sells for \$5, X-\$2.50, XI-\$2.00, and XVII-\$1.50.

A few copies of a suppressed sheet (Vol VIII, No. 11, Nov., 1883, pp. 83-84) entitled "Plain English," being an editorial of caustic comment on the personnel of the Nuttall Ornithological Club and the newly organized American Ornithologists' Union; recently procured from the personal effects of the late Jos. M. Wade, have been put

in circulation at 50 cents per copy by the Franklin Bookshop of Philadelphia.

108. **THE ORNITHOLOGISTS AND OOLOGISTS' SEMI-ANNUAL.** Royal 8 vo.

PRICE 25 CENTS PER COPY. PITTSFIELD, MASS., W. H. FOOTE, PUBLISHER, 1889. (No. 2 & later: BEST EDITION 35c. POPULAR EDITION 25c. W. H. FOOTE, PUBL'SH'R., Pittsfield, Mass.)

C. C. Maxfield, Willard, N. Y., editor of the second volume when it became the official organ of the Wilson Ornithological Chapter. The best edition was exhausted almost immediately, and some of the numbers are now quite scarce.

Vol I, Nos. 1-2, Jan., July, 1889, pp. 48+46, incl. 1 pl. (Blue Jay, drawn by W. H. Foote.)

Vol. 2, Nos. 1-2, Jan., July, 1890, pp. 48+44, incl. 2 pll. (Golden Eagle and eyre, drawn by W. Raine, from his "Bird Nesting in the Northwest," and an unsigned figure of the Am. Sparrow Hawk.)

Well written articles by the Brimley Brothers, G. F. Breninger, Lynds Jones, W. L. Kells, Chas. A. Keeler, L. G. T. Meyer, C. J. Pennock, Walter Raine, J. H. Rachford, W. G. Smith and others. Continued as "The Semi-Annual."

109. **THE OSPREY.** | AN ILLUSTRATED | MONTHLY MAGAZINE OF POPULAR ORNITHOLOGY. | VOL (UME) I (-V). | SEPTEMBER, 1896, TO SEPTEMBER, 1897 (-August, 1900, INCLUSIVE). | (reduced photo of Hummingbird, nest and young—after vol. I, Osprey scene. | EDITED BY WALTER ADAMS JOHNSON, | ASSOCIATED WITH DR ELLIOTT COUES. |—| GALESBURG, ILL.: | THE OSPREY COMPANY. | 1897-(1900). Royal 8vo.

Subscription \$1.00 per year, 10 cents a copy.

Vol. I, Nos. 1-12, Sept., 1898-July, Aug., 1897, pp. (vi)+150, incl. 11 full page ill.

Vol. II, Nos. 1-10, Sept., 1897-June, 1898, pp. (vi)+138, incl. 15 full page ill.

Vol. III, Nos. 1-10, Sept., 1898-June, 1899, pp. (viii)+164, incl. 5 full page ill.

Vol. IV, Nos. 1-11, 12, Sept., Oct., 1899-Nov., Dec., 1900, pp. (viii)+187, incl. 6 full page ill.

Vol. V, Nos. 1-12 (11 and 12 double), Sept., 1900-July, Aug., 1901, pp. (ix)+176, incl. 13 full page ill.

THE OSPREY AN ILLUSTRATED MONTHLY MAGAZINE OF BIRDS & NATURE (contents) Complete Series, Volume VI. **THE OSPREY COMPANY, WASHINGTON, D. C.** (cover form of Volume I, New Series, 1902.) Superroyal 8 vo.

Vol. I, (new series), Nos. 1-7, Jan.-July, 1902, pp. 108+42 (suppl.)&15 pll. (Suspended after No. 6, No. 7 not placed in general circulation.)

The first two numbers edited by Walter A. Johnson and Dr. A. C. Murchison, the California department by Donald A. Cohen, the latter in place of Chester Barlow as originally announced in the April prospectus; and this periodical also published the proceedings of the Michigan Ornithological Club. After the second number edited by Walter A. Johnson alone until Dr. Coues became associated with him March, 1897, and the place of publication removed to 141 East 25th St., New York City. At the instance of Dr. Coues, it was purchased by Dr. Theodore Gill, and removed to Washington, D. C. October, 1899, and the latter two gentlemen became the editors, with Walter A. Johnson, associate, and Louis Agassiz Fuertes art editor. Dr. Gill, who had withdrawn from the April and May numbers, again assumed the editorship by June, upon the retirement of Dr. Coues.

Vol. V, No. 2, the editors were Dr. Theodore Gill in collaboration with Robert Ridgway, Leonard Stejneger, Frederic A. Lucas, Charles W. Richmond, Paul Bartsch, William Palmer and Harry C. Oberholser, of Washington, and Witmer Stone of Philadelphia. The only change made in the new series was the elevation of Paul Bartsch to chief editorship with Dr. Gill.

Among the special features "William Swainson and His Times," "The Osprey or Fishhawk: Its Characteristics and Habits," and as a supplement to the final volume: "General History of Birds," all by Dr. Gill. This by far the most brilliant of the minor ornithological periodicals, in all that goes to make a success, was nevertheless a failure. Volume I is very scarce and worth about \$6.00.

110. **OUR BIRDS. HOLYOKE. MASS.** Published Monthly by Legion

I, Knights of Audubon. Richard S. Brooks, Editor, Frank H. Metcalf, Publisher, subs. 30c., single copies 3 cts. 12 mo.

Vol. I, No. 1, May, 1880, 8 pp., incl. 2 pp adv.

Suspended, failed to get second class rates. Articles by Harry G. Parker and J. B. Underwood.

111. **The Owl**, Glenn Falls, N. Y. ISSUED QUARTERLY BY Chapter 711, AGASSIZ ASSOCIATION. DEVOTED TO THE CAUSE OF INCREASING AN INTEREST IN NATURAL HISTORY, ESPECIALLY AMONG THE YOUNG-FOLKS. (contents) SUBSCRIPTION PRICE, 20 CENTS A YEAR. SINGLE NUMBER, 5 CENTS. H. Pearl Peck, Edw'd Wait, (-vol. II) Mary Green, Florence C. Buffum, (-vol. III). Newton B. Vanderzee, Business manager. Various 8 vo.

Vol. I, No. 4, May, 1886, pp. 8, incl. 1 p adv., no covers.

Vol. II, Nos. 1-4, Nov., 1886, Feb., May, July, 1887, pp. 36, and covers.

Vol. III, Nos. 1-2, Nov., 1887, Feb., 1888, pp. 36, and covers.

The subscription of the first volume was 40 cents, and the edition 500 copies, with the second volume, 2000. I have not seen the first three numbers of the initial volume. Articles all unsigned. "The Birds of Glenn Falls and Vicinity," anon.

112. **THE OWL. CHATHAM, N. Y.** Published monthly at 25 cents per year by F. E. Birch & W. B. Daley. Size of med. 8 vo.

Vol. I, No. 1, Feb., 1890, 4 pp., unpp. Notes by R. M. Barnes, H. H. Butler, Willard N. Clute and Neil F. Posson. Probably 2 or 3 numbers published at Chatham, none at Waynesburg, Pa., though it was announced by J. Warren Jacobs.

113. **THE PETREL** (photo of nest of Audubon's Caracara) VOL. I. PAL-ESTINE, ORE., JANUARY, 1901, NO. 1. Med. 8 vo.

AN ILLUSTRATED MONTHLY MAGAZINE DEVOTED TO ORNITHOLOGY AND OOOLOGY. Edited by JOHN WILLIAM MARTIN. To United States, Canada, Mexico, 50 cts. Per Year. To other Countries, 60 cts. Per Year.

Vol. I, No. 1, Jan., 1901, pp. 16, and cover.

Suspended. The single number was

printed on good paper, and the following contributed: William L. Atkinson, James J. Carroll, E. F. Hadley, Wm. L. Kells and Walton I. Mitchell.

114. **Rambles in Nature.** JACKSON, MICH. Med. 8vo.

EDITED AND PUBLISHED MONTHLY BY R. J. WOOD, 304 JACKSON STREET, PRINTED BY B. J. CARTER, 110 Main Street. Single Subscription 30 cents per annum. To Foreign Countries 50 cents. Single Copies 5 cents.

Vol. I, Nos. 1-2, May-June, 1885, pp. 16, and covers.

Possibly one or two more numbers before suspending, since an exchange states that "the September number did not appear." Papers by E. M. Hasbranck and A. M. Shields.

115. **RANDOM NOTES ON NATURAL HISTORY** | (eng. after drawing by A. I. Bodwell) | (A MONTHLY, 50 CENTS PER ANNUM.) | PUBLISHED BY SOUTHWICK & JENCKS, | (JAMES M. SOUTHWICK, SUCCESSOR.) | PROVIDENCE, R. I. Royal 8 vo.

A PAMPHLET DEVOTED TO THE DISTRIBUTION OF USEFUL KNOWLEDGE CONCERNING THE VARIOUS DEPARTMENTS OF ZOOLOGY, MINERALOGY AND BOTANY 50 Cents a Year.

Vol. I, Nos. I-XII, Jan. 1-Dec., 1884, 120 pp. incl. 33 pp. adv., (not consecutively paged beyond the number).

Vol. 2 (II), Nos. 1-12, Jan.-Dec. 1, 1885, pp. ii+96 and (xlvii)-xlvii.

Vol. III, Nos. 1-12, Jan. 1-Dec. 1, 1886, pp. ii+100, incl. 2 pp. adv.

Discontinued. After the third number of the last volume, the name of James M. Southwick, alone appears. The first two numbers were out of print immediately, and a complete file is rather scarce. Some unsigned matter, including "The Roseate Spoonbill in Florida Rookeries," presumably by Fred T. Jencks, the junior partner, run through the first four issues of the initial volume, and short papers or notes by J. N. Clark, Charles Dury, Wm. G. Smith, D. D. Stone and a few others, appeared.

116. "Science News. 16 pp. journal pub. by S. E. Cassino, Salem, Mass. Edited by Ernest Ingersoll and William C. Wyckoff of New York. \$2.00 per annum. Bi-monthly."

Vol. Nos. 1-24, Nov. 1, 1878-(Oct. 15?), 1879, pp. 1-(384?).

"A fortnightly journal, which, it is greatly to be regretted, closed its existence with the twenty-fourth number." Papers by Chas. C. Abbott, Walter E. Bryant, Ernest Ingersoll (a series of nine papers on "How to Collect Birds' Nests and Eggs"); M. C. Reed, Geo. H. Ragsdale, George B. Bennett (five short papers entitled "Later Notes on Texas Birds").

117. **SCIENCE RECORD PUBLISHED BY S. E. CASSINO & CO., 41 ARCH ST., BOSTON, MASS.** Med. 8vo.

A monthly journal of Notes and News in all departments of Science. J. S. KINGSLEY, Malden, Mass., Editor. ONE DOLLAR A YEAR. Formerly Scientific and Literary Gossip.

Vol. II, Nos. 1-12 (Nov. ?) 1883-(Oct. ?) 1884, pp. 1-280?, covers.

I have not seen the first and last of the 12 numbers published. Contributions by Elliott Coues, Geo. F. Gaurer, Dr. G. E. Manegault, Leonard Stejneger and Arthur T. Wayne.

118. **THE Scientific Monthly.** A MAGAZINE DEVOTED TO The Natural Science. E. H. FITCH, Editor and Proprietor, TOLEDO, OHIO: BLADE PRINTING & PAPER COMPANY (TOLEDO COMMERCIAL COMPANY, PRINTERS. Med. 8vo.

Price \$1.00 a Year, or 30 (35) Cents a Number.

Vol. I, Nos. 1-11, Oct., 1875-Aug., 1876, pp. 1-571, covers.

I have not examined all the numbers of this rare and valuable magazine, doubtless there are a number 12. C. J. Maynard, E. W. Nelson, R. Ridgway and T. S. Roberts contributing.

119. **The Semi-Annual.** PRICE 35 CENTS. C. C. MAXFIELD, PUBLISHER. DANBURY, CONN. Med. 8 vo.

A semi-annual review for students of Ornithology and Oology, issued April and October of each year. Edited by Lynds Jones, Elm St., Oberlin, Ohio. Price 35c per copy.

Vol. 3, No. 1, April, 1891, pp. 44+1 pl., covers.

Continuation of the "O. & O. Semi-Annual," and followed by the "Wilson Quarterly." Official organ of the Wilson Ornithological Chapter, and contains the report of the Oological Committee, by Lynds Jones; also some notes by Harry K. Jamison.

120. **THE SCIENTIST. A MONTHLY MAGAZINE, BY THE FITCHBURG AGASSIZ ASSOCIATION.** EDITED BY E. ADAMS HARTWELL, A. M., W. G. FARRAR, PREST. STATE ASSEMBLY, (CONTENTS) FIFTY CENTS A YEAR, FIVE CENTS A COPY. W. L. EMORY, PUBLISHER, FITCHBURG, MASS. Superroyal 8vo.

Vol. I, Nos. 1-6, Apr.-Sept, 1888, pp. 1.48, covers. Complete. A rather scarce magazine. Contains one or two papers by I. C. Green.

121. **THE SPY GLASS. A MAGAZINE FOR COLLECTORS.** "Let us be Collectors for the pure love of the science, and for the friendship it fosters and we feel that we have acted wisely in thus treating the matter." ROY F. GREEN, Editor, Arkansas City, Kansas. LETSON BALLIET, Associate, Des Moines, Iowa. GREEN & BALLIET, PUBLISHERS, ARKANSAS CITY, KANSAS. 8vo.

Subs. Six months 30c. One year 50c. Vol. I, Nos. 1-2, Sept.-Oct., pp. 1-42 and covers.

Suspended. Official organ of the Galveston Philatelic Association. Circulation of second number said to have been 5000. Balliet retired after the initial issue. B. S. Bowdish, N. R. Cristy, W. S. Cruzen, J. H. Frier and J. W. P. Smithwick contributing.

122 **Stories from Nature.** Published Monthly. Devoted to the Natural Sciences. For Young and Old Alike. DeLand, Fla.

50 Cents a Year. Single copies 5 cents. Demi folio.

Vol. I, Nos. 1-8, (June?) 1897-Jan., 1898, 64? pp., unpp.

Unimportant, incomplete file contains some notes by H. R. Steiger.

123. **Stormy Petrel.** A paper devoted to Oology, and Ornithology. MENDOTA, ILL. Demy 8vo.

(M.) Smith & CO., Publishers and Editors. Published monthly at 20c. per year. Filling the unexpired subscriptions of "The Exchange."

Vol. I, Nos. 1-5, Apr.-Aug., 1890, (no. 2 erroneously dated "April.") 32 pp. (pagination began with each number), last three issues with covers.

Probably complete, as I can learn of no further issues. Evidently printed on same press and type as its predecessor. Notes by B. S. Bowdish, F. T. Corless, T. G. Gentry, E. B. Peck,

W. C. Robinson and J. W. P. Smithwick.

124. **THE SUNNY SOUTH OOLOGIST.** GAINESVILLE, TEXAS. Lg. 12mo.

A Monthly devoted to the interest of Ornithologists and Oologists. 50 cents a year. Edited and Published by Edwin C. Davis.

Vol. I, Nos. 1-3, Mar.-May, 1886, pp. 1-40, incl. 3 pp. adv., covers.

Suspended for want of patronage and all subscriptions returned. A neat little magazine containing notes by E. C. Davis, F. M. Dille, F. D., and J. H. Foxhall, W. L. Kells, G. Noble, H. G. Parker, G. H. Ragsdale, A. M. Shields, Geo. H. Selover, J. A. Singley and Geo. Wilder.

125. **THE SWISS CROSS | A MONTHLY MAGAZINE | OF THE (OF) | AGASSIZ ASSOCIATION (POPULAR SCIENCE) | VOLUME I (-V) | JANUARY-JUNE (JULY-DECEMBER) | 1887 (-1889) | NEW YORK | N. D. C. HODGES | 1887 (-1889).** Royal 8 vo. Harlan H. Ballard, President of the Agassiz Association, Editor. Subs. \$1.50 a year.

Vol. I, Nos. 1-6, Jan.-June, 1887, pp. (iii)+248.

Vol. II, Nos. 1-6, July-Dec., 1887, pp. (iii)+192+(iv).

Vol. III, Nos. 1-6, Jan.-June, 1888, pp. 192.

Vol. IV, Nos. 1-6, July-Dec., 1888, pp. 192+(ii).

Vol. V, Nos. 1-6Jan.-June, 1889, pp. 1-184.

Suspended. Of no great value to the ornithologist. Contributions by C. C. Abbot, Catherine Amory, W. Whitman Bailey, Wm. L. Bates, Wm. D. Butler, W. W. Clute, Thomas H. Fay, Lynds Jones, M. L. Leach, Prof. E. H. J. Marcy ("The Mechanism of the Flight of Birds"), Ellis P. Oberholtzer, Spencer Trotter, M. W. Thomas, G. F. Walters (translation from "La Nature"); J. L. Zabriskie and a few others.

126. **TIDINGS FROM NATURE | PUBLISHED FOR THE | ADVANCEMENT OF SCIENCE | AND THE | STUDENT AND OBSERVER OF NATURAL HISTORY |—| VOLUME I (-II). |—| RUTLAND, VERMONT | NATURALISTS' PUBLISHING HOUSE, PUBLISHERS. | 1884-85. (1885-86). Med. 8vo.**

H. M. DOWNS, EDITOR (and Pub-

lisher of first three numbers). Subs. 25c per year (50c with vol. ii).

Vol. I, Nos. 1+1-12 (9-10, double) Aug., 1884-Aug., 1885, pp. v+12+148, (both Aug. and Sept. numbers are marked "no. 1," and the sequence uncorrected later.

Vol. II, Nos. 1-7, Sept., 1885-Apr., 1886, pp. 1-110.

Transferred to "Hoosier Naturalist." J. R. Boardman, E. L. Brown, H. L. Clark, Montague Chamberlain, W. E. Fowler and D. H. Talbot contributing.

127. **THE TAXIDERMIST** (CONTENTS). Med. Svo.

A monthly magazine devoted primarily to the interests of Taxidermy, but interesting to every student of nature. E. F. MARTIN, EDITOR, MEDINA, O. (with no. 4, C. F. Minguin, Business manager; Published at Akron, Ohio, and subs. 50c.). Subs. 35c.

Vol. I, Nos. 1-12, July, 1891-June, 1892, pp. 1-160, incl. 7 pp. adv. (no. 4 erroneously marked "September" though correctly dated on cover).

Articles by Davis, Heller, Langille, Peabody and others, mainly on taxidermy and embalming. Nos. 4-12 contain the reports of the Wilson Ornithological Chapter of the Agassiz Association, by Lynds Jones.

128. **THE TAXIDERMIST**. DEVOTED TO What You Want—How to Use It—Where to Get It. Published by the Frank Blake Webster Co. Hyde Park, Mass., U. S. A. Med 8 vo.

Nos. 1-7, Apr., June, 1907, May, Oct., 1908, Oct., 1910, Mar., 1913, May, 1914. pp. 16+32+16+16+32+24+12.

Circulation 3000 to 5000, without charge to customers. Mainly advertising a naturalists' supply house, though well worth preserving for the occasional items. Complete sets may be had at \$1.00, until 75 sets are disposed of.

129. **THE VALLEY NATURALIST**. Established January, 1878. (Naturæ Discere Mores) Henry Skaer, Publisher, Saint Louis, Mo., Subscription for the year 50 cents. Folio.

Vol. I, Nos. 1-12, Jan.-Dec., 1878, pp. 1-(68?).

Volume two, 1879, an 8-page, and volume three, 1880, a 16-page monthly I have not had an opportunity to examine. The first contains C.P. Blachey's "Birds of Kansas," F. C. Green's "Birds of Milwaukee County, Wis." W. H. Hughes' "Birds of Michigan,"

and Wm. L. Jones' "Birds of St. Clair County, Ill."

130. **The WARBLER** (eng. figg. birds, eggs, nest, and butterflies) 1903 (-1904) (CONTENTS) ISSUED BY THE MAYFLOWER PUBLISHING CO. FLORAL PARK, N. Y. Royal Svo. JOHN LEWIS CHILDS, President. REV. H. C. MUNSON, Editor. (Rumford Center, Maine.) Subscription Price, 30 Cents for 3 Years. Foreign subscribers must send one shilling extra for postage. (First or Popular Series.)

Vol. I, Nos 1-6, Jan., Feb.-Nov. Dec., 1913, pp. 1-96, incl. 17 pp. adv.

Vol. II, Nos. 1-6, Jan., Feb.-Nov., Dec., 1904, pp. 1-96, incl. 32 pp. adv.

131. **The Warbler SECOND SERIES VOL. I** (-11). 1905 (-1906) No. 1(-4) (CONTENTS). Superroyal 8 vo.

A MAGAZINE OF NORTH AMERICAN ORNITHOLOGY Published Quarterly at Floral Park, N. Y. Price \$1.00 Per Year. 30 Cents Per Copy. JOHN LEWIS CHILDS, EDITOR.

Vol. I, Nos 1-4, First-Fourth Quarter (Oct. 31, 1905), pp. 1-128 incl. Index, col. pl (I-VIII).

Vol. II, Nos. 1-4, First (Feb. 20)—Fourth Quarter (Dec. 20, 1906), pp. 1-106, col. pl. I-IV.

Suspended. It does not appear who was the editor of the second volume of the popular series, which contains mostly unsigned notes and articles; the names of J. L. Childs, L. W. Brownell and H. Nehrling most frequently appear, and the illustrations are mostly from photos of mounted specimens in the Childs' collection. The second or scientific series is almost wholly devoted to original accounts of the nesting of extremely rare species with illustrations reproduced from photographs. It is surprising that no title page was provided for this elegant periodical.

131a. **The WARBLER** (eng. Perm. title) BULLETIN OF THE CHILDS MUSEUM OF NORTH AM. ORNITHOLOGY Published (date), at Floral Park, N. Y. Price \$1.00 JOHN LEWIS CHILDS, EDITOR. PUBLISHED ANNUALLY BY JOHN LEWIS CHILDS.

Vol. III, Dec. 1, 1907, pp 56+1 col. pl.

Vol. IV, Oct. 1, 1908, pp. 48.

Vol. V, Dec. 31, 1909, pp. 31.

Vol. VI, Oct. 31, 1910, pp. 44.

Vol. VII, Nov. 1, 1913, pp. 34+3 (2 col.) pll.

Contains catalogues of the Childs scientific library and collection of birds, nests and eggs; some of the Miller Hageman bird poems, and papers principally on nidification by well known writers. There are numerous half tones. The plate of the eggs of the Santa Catalina Partridge in vol. iii, hand colored by Zoltan de Takach Gyongyshalaszy, and those of the Knot in Vol. vii by Leavitt W. Brownall; after being photographed natural size. The Publisher informs me that the editions (limited to 100 in the last) of these two volumes are about exhausted.

132. **WEEKLY OOLOGIST & PHILATELIST** Published Every Saturday. 35 cts. per Year. Lebanon, Oregon. Demy. 8vo.

F. T. CORLESS, EDITOR AND PUBLISHER.

Vol. I, Nos. 1-2, Dec. 12-19, 1891, 8 pp. unpp.

Notes by Kit Atkinson and F. T. C(orless). Short lived, poorly printed.

133. **THE West American Scientist** | Official Organ of the San Diego Society of Natural History. | INDEX | To Volumes I, II, III and IV | 1884-88. |—| C. R. ORCUTT, Publisher. | SAN DIEGO, CALIFORNIA. Size various 8 vo.

A popular review and record for the Pacific Coast. Subscription 50c per annum in advance (vol. i, nos. 1-6). \$1.00 per year (except vol. vii, which was \$2.00).

Vol. I, Nos. 1-11, (Dec?) 1884-Nov., 1885, pp. (vii)+84, incl. 3 pp. adv.

Vol. II, Nos. (12)-19, Jan.-Oct., 1888, pp. 1-96, incl. 13 pp. adv.

Vol. III, Nos. 20-32, Dec., 1886-Dec., 1887, pp. 1-250 (p. 150 in duplicate.)

Vol. IV (4), Nos. 33-38, Jan.-June, 1888, pp. 74, 2 pll.

Vol. V, Nos. 39-41, Sept.-Nov., 1888, pp. 24.

Vol. VI, Nos. 42-49, Apr.-Nov., 1889, pp. 163.

Vol. VII, Nos. 50-63, June, 1890-Oct., 1891, pp. 276+55 ("LITERARY AND EDUCATIONAL SUPPLEMENT, Nos. 1, 2 and 3.")

Vol. VIII, Nos. 64-78, Mar., 1892-Jan., 1895, pp. 120+4 (the last unpp. colored cover which constituted last issue.)

Vol. IX, Nos. 79-80, pp. 8, incl. 5 pp. adv.

Vol. X, Nos. 81, 82, 85, 86, 88, 93-100, Nov. 1896, Nov., 1897, Jan., Feb., May, Sept., Nov., Dec., 1900, Jan.-Apr., 1901, pp. 172 (pp. 41-172 "Botany of Southern California," beginning in second half of no. 93, Sept., 1900, and continuing through entire volume.)

Vol. XI, Nos. 83, 84, 87(3), 89(4), 90(5), 91(6), 92(7), 101(8), Jan., 1899, Janu., Apr.-Aug., 1900, May, 1901. pp. 80.

Vol. XII, Nos. 102-115-(1-12), June, 1901-July, 1902, 182 columns (91 pp., about half adv.)

Vol. XIII, Nos. 116-119(1-4), Aug.-Nov., 1902, 68 columns.

Vol. XIV, Nos. 120-126(1-7), Dec., 1902-July, 1903, 54 columns.

Vol. XV, Nos. 127-130(1-4), Aug., Sept., 1903, (Jan., June, 1906, 61 columns.

Vol. XVI, Nos. 131-132, Dec., 1908, Jan., 1908, 14 columns.

Vol. XVII, Nos. 133, Aug., 1908, pp. 16.

Vol. XVIII, Nos. 134-139, Aug., Sept., 1911, May, 1912, Dec., 1913, Jan., Feb., 1914, 92 columns.

The original title was: The West-American Scientist, but the hyphen was discarded after the fifth, and a cover assumed by the seventh number. With the exception of volume six, 1889, which was published by Samuel Carson & Co., San Francisco, C. R. Orcutt was both editor and publisher. No title page and index appears with the succeeding volumes. In completing a file, one discovers a number of typographical errors in dating and enumeration, not all numbers have covers, and the stock is apt to be inferior. Enumeration of volumes ten and eleven may appear intricate; of the former, from the last half of number 93, to 100, there is nothing to distinguish the number or date of publication unless the separate sheets happen to be placed in covers; sometimes, lacking the first 41 pages of the full volume, it may be found inclosed in a cover entitled: "Botany of Southern California," a reference work by Charles Russell Orcutt. Numbers 84, 87 and 89 of volume XI are entitled: West American Scientist.

This irregularly appearing little journal has outlived the great majority, and is a monument to the industry and perseverance of Proprietor C. R. Orcutt, the editor and chief con-

tributor along botanical lines. I am uninformed in respect to the circulation, but there are a number of life subscribers, and it will doubtless be continued by the publishers. Many of the early issues are exceedingly scarce. The ornithological notes appeared in the early volumes, and are by L. Belding, F. E. Blaisdell, F. L. Burns, Chette L. Cheney, S. H. Henry, Theo. D. Hurd, J. Warren Jacobs, Louis R. Lighton, R. E. Ranchford & Son, H. R. Sharples, Frank Stephens, G. D. Story and H. R. Taylor.

134. **THE WESTERN NATURALIST. MADISON, WIS. POST** 8vo.

ISSUED BY THE WESTERN GOOD TEMPLAR. FRANK A. CARR, Editor. The Western Naturalist is published monthly, and is designed to stimulate the young people of the northwest to an earnest study of the various branches of natural history. Subs. 25c. a year in advance.

Vol. I, Nos. 1-10, Mar.-Dec., 1887, pp. 1-112, and covers last four issues.

Vol. II, Nos. 1-5, Jan.-May, 1888, pp. 1-60, incl. 3 pp. covers announcing transfer to Prof. E. R. Orcutt's "West American Scientist."

Subscription raised to 50 cents, July 1887, at the same time covers were assumed. Items by Dr. J. H. Burdick and F. A. Carr, ("The Flamingoes" translated from the French of Henry Leturque in New Orleans "Picayune"). "J. Bird" associate editor of the dept. ornithology.

135. **THE WESTERN OOLOGIST.** Royal 8vo.

Devoted to the Study of Birds, Their Nests and Eggs. Published Monthly by F. M. Sherin, Milwaukee, Wis. Single Subscription 50 cents per annum, Single copies 5 cents each.

Vol. I, Nos. 1-3, May-July, 1885, pp. (8?) + 20, evidently with covers originally.

Quite rare, the first issue not examined. It appears that a paper of the same name suspended seven years previous. Notes by H. A. Berry, W. N. Clute, Elizabeth Cole, Fred C. Green, W. B. Hull, Chas. A. Keeler, Chas. F. Hellewill and Violet S. Williams.

136. **THE Western Ornithologist, FORMERLY THE IOWA ORNITHOLOGIST.** (various half tone eng.) Published by C. C. TRYON, AVOCA, Ia. Superroyal 8 vo.

Bi-monthly. 50 cts. per Year. Chas. C. Tryon, Editor and Publisher. Carl Fritz Henning, David L. Savage, Associate Editors.

Vol. I, Nos. I-III, Jan. Feb-May, June, 1900, pp. 66+- pl. (p. 45 in duplicate.)

A superior publication, suspending after the third number. Circulation "several thousand." J. N. Clark, C. F. Henning, Morton E. Peck, David L. Savage, William Savage and B. H. Wilson contributing.

137. **Western Reserve Naturalist.** GENEVA, Ohio. 8vo.

A MONTHLY MAGAZINE DEVOTED TO OOLOGY, ORNITHOLOGY, AND BOTANY. F. C. HUBBARD, Editor and Publisher. Single Subscription 10 cts. per annum. Sample Copies Free

Vol. I, Nos. 1-3, (June)-Aug., 1893, pp. (24?), unpp. beyond the separate numbers.

I have seen only the third issue of this unimportant little sheet, which contains a paper by Prof. J. Hobert Egbert.

138. **The Wilson Quarterly.** A Journal of Ornithology. Continuation of the Semi-Annual. (eng.) OFFICIAL ORGAN OF THE WILSON ORNITHOLOGICAL CHAPTER OF THE AGASSIZ ASSOCIATION. Med. 8 vo. Published by Reuben M. Strong, Oberlin, Ohio; under the editorial management of Lynds Jones, assisted by Willard N. Clute. Terms: \$1.00 a year in advance. Single numbers \$ 25. Free to all members of the Wilson Chapter not in arrears for dues.

Vol. IV (4), Nos. 1-2, Apr., July, 1892, pp. 1-92 incl. 4 pp. adv. covers.

A well printed little journal, containing articles by H. H. Brimley, W. N. Clute, W. L. Dawson, Willard Eliot, I. C. Green, Lynds Jones, F. T. Pember and others.

139-**THE | WISCONSIN NATURALIST.** | A Monthly Magazine of Natural History. | VOL. I. AUG. '90 TO JULY '91. | MADISON, WISCONSIN: | CHAS. F. CARR, PUB. Med. 8 vo. 50 Cents per annum; Foreign Subscribers 65 Cents, Invariably in Advance.

Vol. I, Nos. 1-12, Aug., 1890-July, 1891, pp. (iv)+188, covers

Unexpired subscriptions filled by the "Ornithologist and Botanist." The most important feature of this neat

periodical, is "A List of the Birds Known to Nest Within the Boundaries of Wisconsin, With a Few Notes Thereon," by C. F. Carr, and after the fifth instalment, by Prof. Ludwig Kumlén.

140. THE WISCONSIN NATURALIST. A MONTHLY MAGAZINE DEVOTED TO ORNITHOLOGY, OOLOGY, ZOOLOGY, MINERALOGY, MOLLUSCA, ECHINODERMATA, AND ALLIED SCIENCES. The Naturalist Publishing Company, 254 GROVE STREET, MILWAUKEE, WISCONSIN, U. S. A. Price 25 Cents a year. Single Copies 5 Cents. ZOLA B. ROHR and FRANK WOERDEHOFF, Editors. Med. 8 vo.

Vol. 1, Nos. 1-6, (July-)-Dec., 1897, pp. 92 and covers.

Vol. 2, Nos. 7-XI; Jan.-May, 1898, pp. 48 and covers.

(Vols. 3 and 4, July, 1898-June, 1899.)

Vol. 5, No. 27, Oct., 1899, pp. 11-24, cover.

Vol. 6, No. 1, Jan., 1900, pp. 1-16 and cover.

An advertising sheet containing little of anything original. Just when it suspended I am unable to ascertain. The second number contains "Birds of the Rockies," by Olive Thorn Miller.

141. THE YOUNG COLLECTOR. A Monthly Journal Devoted to the Interests of Collectors of Specimens of Natural History, etc. Charles & James Keys, Publishers, 926 Ninth Street, Des Moines, Iowa. 50 cents per annum in advance. Med. 8 vo.

Vol. II, Nos. 1-3, May-July, 1882, pp. 1-28, cover.

I have not seen the first volume. The ornithological notes unsigned and mainly from exchanges.

142. WOLVERINE NATURALIST. KALAMAZOO, MICH. 8 vo.

MORRIS GIBBS, M. D. EDITOR. A MONTHLY MAGAZINE devoted to the study of Ornithology, Oology, Entomology, Herpetology, Conchology, Ethnology, Geology, Palaeontology and Allied Sciences. One Year 50 Cents. Single Copies 5 Cents.

Vol. I, Nos. 1-4, Jan-Apr., 1890, pp. 12+20+8+8, incl. 20 pp. adv., covers. (last two numbers unpp.)

Incorporated with "American Game and Fish Warden" of Kalamazoo, in September or October. Very little of interest to the ornithologist.

143. THE YOUNG NATURALIST.

A Monthly Magazine devoted to Natural History, and the Interests of Collectors. GALESBURG, ILL. Large 12 mo..

The Young Naturalist Publishing Co., CHARLES F. GETTEMY, Editor-in-Chief. E. D. Whiting, F. Anderson, E. C. Elder, Associates. Subs. 50 cents per annum. Single copies, 5 cents.

Vol. 1, Nos. 1-5, (May?)-Sept., 1884, pp. 1-60 incl. adv.

"Subscription merged into 'The American' of which I believe I issued 6 numbers, suspending publication in the spring of 1885."—Chas. F. Gettemy. I have not seen the earlier numbers. H. A. Talbot contributed to the September issue.

144. THE YOUNG OOLOGIST, FOR THE STUDENT OF BIRDS, THEIR NESTS AND EGGS. VOL. I. GAINES, N. Y. FRANK H. LATTIN, Publisher, 1884-1885. Med. 8vo.

Vol. I, Nos. 1-12, May, 1884-Apr., 1885, pp. (vii)+171, incl. 28 pp. adv.

THE YOUNG OOLOGIST VOL. II. ALBION, N. Y.: FRANK H. LATTIN, PUBLISHER, 1885. Med. 8vo.

Subscription \$1.00 per annum.

Vol II, Nos. 1-2, May, June, 1885, pp. (ii)+48.

Suspended, sold to the "Agassiz Journal." The initial number printed on coarse paper, and with no. 7 the subscription raised to 60 cents. The circulation increased from about a thousand in October, to 5000 in February. Many contributors signed with initials only: G. F. Breninger, Montague Chamberlain, E. H. Fiske, W. L. Kells, M. McCullum, Harry G. Parker, T. D. Perry, C. L. Phillips, J. W. Preston, W. D. Shaw, A. M. Shields, J. A. Singley, C. M. Weed, H. R. Taylor, C. B. Wilson, W. W. Worthington.

145. THE Young Ornithologist. BOSTON, MASS. Med. 8vo.

Edited and published monthly by Arthur A. Child. Subs. 25 cents per year. Single copies 4 cents each.

Vol. I, Nos. 1-12, May, 1885-Apr., 1886, 96 pp. incl. 19 pp. adv., not pp beyond number, no. 1 unpp.

Suspended. The "Young Ornithologists' Association" originated with this little paper. Among the contributors are G. F. Breninger, J. C. Cahoon, D. H. Eaton, Chas. A. Keeler, W. L. Kells,

C. J. Maynard, T. D. Perry, Elisha Slade, C. W. Swallow.

146. **The Young Scientist. SCIENCE IS KNOWLEDGE** (eng.) KNOWLEDGE IS POWER. A Popular Record of Scientific Experiments, Inventions and Progress (A PRACTICAL JOURNAL FOR AMATEURS) NEW YORK. Large 12mo.

Subs. 50 cents a year.

Vol. I, Nos. 1-12, Jan.-Dec., 1878, pp. 164-1 pl.

Vol. II, Nos. 1-12, Jan.-Dec., 1879, pp. (176?).

THE YOUNG SCIENTIST. A PRACTICAL JOURNAL OF HOME ARTS. | "KNOWLEDGE IS POWER." | (eng.) | VOLUME III. January to December, 1880. |—| NEW YORK; INDUSTRIAL PUBLICATION COMPANY. | 14 Dey STREET. | 1880. Med. 8 vo. Subscription \$1.00.

Vol. III, Nos. 1-12, Jan.-Dec., 1880, pp. 148.

Vol. IV, No. 1, Jan., 1881, pp. 16.

This journal ran to volume VII (number 1, January, 1884, with Fred T. Hodgson and John Phin, Editors; and number 2 appeared exactly four years later—January, 1888, with the latter only, editing. My file lacks volumes IV-VI. The only bird matter is by A. W. Roberts.

147. **ZOE, A BIOLOGICAL JOURNAL. PUBLISHED ON THE LAST DAYS OF EACH MONTH.** Vol. I, March (-February), 1890. No. 1 (-12). CONTENTS) SAN FRANCISCO; ZOE PUBLISHING COMPANY, P. O. BOX 2114, Yearly Subscription, \$2.00, Single Copy, 20 cts. Royal 8vo.

Frank H. Vaslet (T. S. Brandegee), Editor.

Vol. I, Nos. 1-12. Mar., 1890-Feb., 1891, pp. vi-389, pll. i-xii.

| **ZOE** |—| TOWNSEND STITH BRANDEGEE | EDITOR |—| VOLUME II (-IV)-1891 (-1894) |—| SAN FRANCISCO, CALIFORNIA. Royal 8vo.

PUBLISHED QUARTERLY. Single Copy, 75 cts. ASSOCIATE EDITORS: H. H. BEHR, KATHERINE BRANDEGEE, WALTER E. BRYANT, FRANK H. VASLET, CHARLES A. KEELER.

Vol. II, Nos. 1-4, Apr., 1891-Jan., 1892, pp. vi+411, pll. xiii-xvii.

Vol. III, Nos. 1-4, Apr., 1892-Jan., 1893, pp. vi+383, pll. xviii-xxiv.

Vol. IV, Nos. 1-4, Apr., 1893-Jan., 1894, pp. viii+431, pll. xxv-xxxi.

| **ZOE** |—| TOWNSEND STITH 1906-APRIL, 1908). NO. 1(-11). Editor, KATHERINE BRANDEGEE, (CONTENTS) ZOE PUBLISHING COMPANY, P. O. BOX 684, SAN DIEGO, CALIFORNIA. Royal 8vo.

A MONTHLY JOURNAL OF BOTANY. Single numbers 20 cents.

Vol. 5, Nos. 1-11 (4-5 double, 6-7-8 triple numbers), June, July, Aug., Sept.-Oct., Nov. 1900-Jan., 1901, May, 1903, Aug. 1905, Sept., 1906-Apr., 1908, pp. 1-266.

On the title page of volume iii, Alice Eastwood's name alone appears as editor; but the editors according to an announcement on the inside cover, are T. S. Brandegee, Walter E. Bryant, Douglas H. Campbell, Alice Eastwood, Charles A. Keeler, Frank H. Vaslet, whose names appear on the permanent title page of volume iv, of which T. S. Brandegee is the proprietor. It does not appear who edited the final incomplete volume, the last number of which appears to have come from the University Press, University of California, Berkeley, California.

This title is exceedingly important to students of California birds. The principal ornithological writers are A. W. Anthony, Walter E. Bryant, L. Belding, W. Otto Emerson and Chas. A. Keeler, with an occasional paper by Herbert Brown, J. G. Cooper, Sam Hubbard, Jr., F. O. Johnson, H. R. Taylor and others.

THE OÖLOGIST.

VOL. XXXII. No. 8. ALBION, N. Y. AUG. 15, 1915. WHOLE NO. 337

Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.



Col. Roosevelt, Pres. M. L. Alexander (center) and Game Warden examining egg of Royal Tern, Breton Island, La.

—Photo by Stanley Clisby Arthur

Nesting of the Yellow Rail in North Dakota.

(*Coturnicops noveboracensis*)

In the southwestern part of Benson County., between the town of Esmond and the old Glacial River locally known as the big coulee, are to be found a number of wet, springy or marshy tracts which are connected with the coulee by ravines or gullies. These ravines contain much of this same wet springy ground.

It was on one of these upland marshes, on June 14th, 1899, that I found my first nest of *Coturnicops noveboracensis*.

The country at that time was new to me and I was tramping about just looking for anything there was to be found, when I heard the sound of eggs crushing underfoot. I lost no time in pulling away the dead grass which concealed the nest and found one perfect egg and four smashed ones. They were perfectly fresh.

The nest was a thick, compact structure of fine grasses, shallowly hollowed, and placed on the wet ground of the previous year's growth. Five days later, in one of the ravines, I stepped on nest number two. It contained nine fresh eggs and all were broken. Like number one, it was placed on the wet ground with prone dead grass overlying and was similar in structure. In neither case did I catch a glimpse of the bird, and my attention was not once attracted to their call notes during 1899.

The identity of my finds remained a mystery to me until later in the season, when I had become fairly well acquainted with the nestings of the Virginias and Soras, I began to suspect that the nests belonged to one of the smaller Rails. And upon sending my single egg to P. B. Peabody, I was assured by him that it was that of the Yellow Rail.

Late in May, 1900, I became acquainted with the call notes of the

birds and heard them in the big coulee as well as in the ravines and upland marshes. They were found to be great skulkers and almost impossible to flush. However, after finding that there were plenty of the birds on hand, my hopes of securing a set of eggs became very bright. But alas! I did not know that the season of 1899 was very late, therefore I could not know that the middle of June would be too late to begin the search which I was planning, the season of 1900 being normal.

The birds seemed fairly common in one certain ravine where the dead grass of two or three previous seasons lay in a thick mat among the growing grass. Selecting this ravine on the morning of June 13th, as probably the most favored nesting ground, I got to work turning over that dead grass and found nest number three. Before noon I had uncovered this nest containing the broken shells of two eggs. It was a thin saucer-shaped affair of large grass blades, rather loosely built and placed on the wet ground, a small knoll surrounded by shallow water. Late in the afternoon having found nothing further, I decided to visit the ravine in which I had found nest number two in 1899. Nest number four was soon discovered. Here again I most unfortunately stepped on a set of nine eggs, smashing them all. Incubation was more than one-half. The nest did not differ in structure from number two. I went about thirty yards away from the nest; then upon returning, I caught sight of a little wing going under the grass, making a quick jump I captured alive with my hand a female Yellow Rail.

June 16th found me at work again in the ravine in which I had found nest number three, and the result of the day's work was the discovery of two more nests. Nest number five was a thin structure of coarse grass blades, placed on the wet ground, contained

one fresh egg but was water-soaked and deserted.

Nest number six was a well-built structure of coarse blades fastened to the surrounding grass stalks after the manner of the Soras' nests. It was just above water about one inch in depth; contained one addled egg and some fine bits of shell. The young had hatched and gone.

Nest number seven was found June 17th in the same ravine, same composition and situation as number six, but the water was two inches deep. The young had hatched and gone also. After finding this nest I concluded that further search was useless. However, I was destined to learn, accidentally, still a little more, during June, 1900, about the nesting of the little Rails.

Nest number eight which I found on June 24th was out in the big coulee. I was crossing a little hay meadow from which the hay had been removed in 1899, when I caught sight of egg shells lying on the ground. Examination showed them to be those of the Yellow Rail from which young had hatched. In another moment I spied the nest. There was no dead grass here and the green blades had been pulled down and fastened about the nest, thus forming a green screen over it. The nest was a rather thin affair of dead blades, placed on the damp ground.

I had been under so strong an impression that the nests of these birds would be found only in places where there was plenty of dead grass to afford concealment that I hadn't thought of searching the "cleaner" areas.

In 1901 and 1902 I had no chance to visit Dakota but the season of 1903 found me again on the ground and on May 30th, I found two nests in the little meadow in the coulee.

Nest number nine containing one egg was found underneath a small bunch of hay which lay on the old stubble. Ground just wet and soggy.

Nest number ten just ready for eggs was found underneath a bunch of prone dead grass missed by the mower the previous year. Ground just damp and soggy.

Visiting number nine on June 1st, I found it to contain three eggs. On the 4th, number ten contained five eggs. The nests were examined on June 8th when number nine was found empty and number ten contained only the broken shells of five eggs, so here again when success seemed so near I was doomed to a bitter disappointment.

It was not until June 18th that I secured my first full set. On this date I began by making a careful search in the vicinity of the sites of nests nine and ten in the hope of finding some signs of second nesting, but nothing in the way of a nest showed up. Near the site of number ten I found three more eggs lying on the ground. These three were undoubtedly the remainder of that set.

Nest number eleven was my lucky find. After I had about given up hope, in the outskirts of the meadow, outside the damper, soggy portion, I suddenly found myself looking down upon a beautiful set of nine eggs. The nest was of coarse, dead blades mostly, and placed upon the ground in a rather thick bunch of growing grass. There was no dead grass about and no canopy over the nest, the ends of the green blades simply hanging loosely together a foot or more above it.

In June, 1905, I again spent a few days on the grounds but no nests of the Yellow Rail were found. My next visit was in 1908 and on May 27th of that year in the wet, soggy portion of the meadow I found nest number twelve containing three eggs. It was placed on the ground and concealed by a canopy of dead grass.

On June 2d I concluded to take no further chances of loss so I secured

the nine eggs and left nine eggs of the Redwinged Blackbird in the nest. The next day I secured the tenth and last egg of the set. The nest was left for several days and the bird continued to sit, even after she had broken and thrown out four of the Redwing eggs. I came to collect the nest one evening just at dusk, and for the first time, caught sight of the bird. She rose from a point some four or five feet from the nest.

So in summing up, we find that in only two instances were the birds seen at the nests and only once was a nest found without a canopy or covering of some kind. Also the nests usually rest upon the ground, though an occasional one may be fastened between the grass stalks over very shallow water, as in the case of nests number six and seven. Both these nests were more strongly built than at least of the ground nests. Numbers one, two and four were the bulkiest and prettiest nests, being composed of a fine kind of grass which did not grow in the vicinity of the other nesting sites.

In no case did I hear the birds utter a scolding note or cry while the nests were being examined. I believe they are always silent while at the nest, the call notes usually being heard at some little distance from the nest. These notes are similar to the sound made by the striking together of two small stones or pebbles, and uttered *pop—pop—pop—pop—pop—pop—pop—pop* and so on. Seemingly each breath is sufficient for five syllables, the last three being uttered more quickly than the first two, in fact they seem almost run together, as *popopop*.

During the day the birds are often silent for long intervals but at night, especially moon light nights the intervals of silence are very short. So we may conclude that the birds are very much more active at night than during the day.

Since 1908 I have visited North Dakota but once. That was during the season of 1914, and no eggs at all of the Yellow Rail were found, although the usual number of the birds were found frequenting the big coulee. Between the coulee and Esmond, however, in the ravines and marshes which the birds had so commonly frequented in former years, none at all were heard, and a marsh at Pleasant Lake in the northwest corner of Benson County was found to be inhabited by a fewer number of birds than in former years.

The eggs of the Yellow Rail are of a warm buffy-brown or creamy buff ground color, marked usually on the larger end only, more or less densely with dots and spots of a dull brownish shade or a reddish chocolate, and scattered, obscure spots and specks of lilac.

Three eggs from three different nests show the following measurements: 1.19 x .81, 1.16 x .84, 1.07 x .79.

Fred Maltby.

Ants and Ospreys.

June 20, 1914—While climbing up to an Osprey's nest in a dead pine on the Tred Avon River, I found that a pair of Red-Headed Woodpeckers had made several large cavities in the tree, about 20 feet from the ground and below the Fish-hawks nest. They had raised a brood of five young in one of these holes, one of which I shot. Its stomach contained black ants and a whitish grub. These woodpeckers evidently fed on the numerous ants about the hawk's nest.

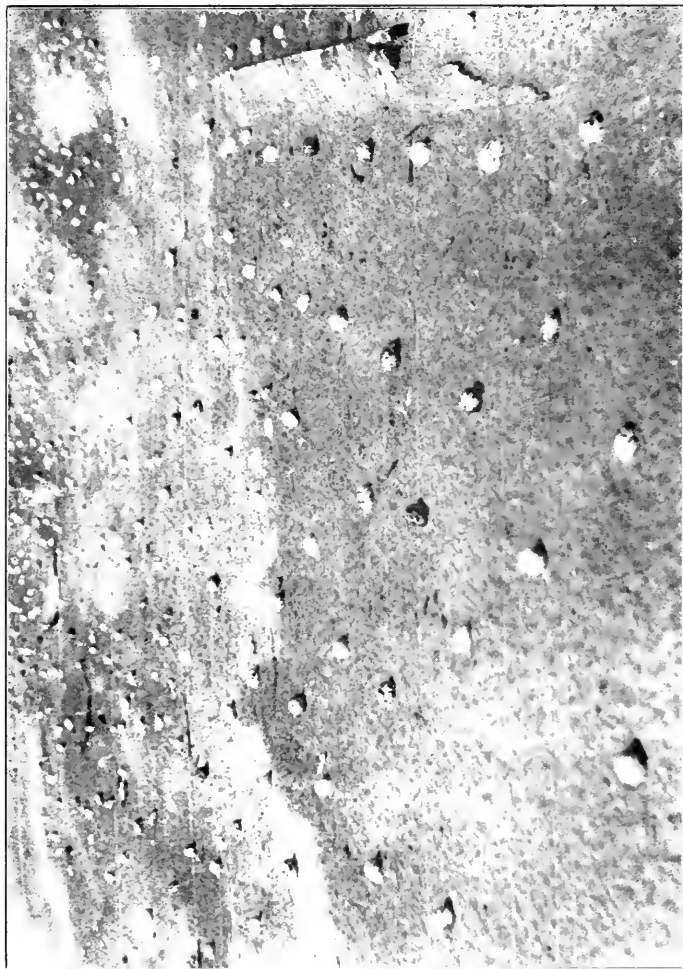
June 30—Collected a set of two Osprey eggs. Noticed a pair of Flickers pecking about a hole on a nearby limb. Upon examination the hole seemed to have been freshly made but contained nothing. Ants were abundant about the Osprey nest.

Climbed up to another Osprey nest nearby but the nest was so bulky I could not reach or climb over the rim to find what was in it, but I thought that it contained young.

Since then I have often seen Flickers and Woodpeckers feeding about the nests of these birds.

B. Langsdale.

Easton, Md.



Eggs of Royal, Caspian and Cabot Tern and Black Skimmer. This shows how thickly the eggs are placed on the beach of Breton Island. The colony occupied a stretch of beach nearly two miles long.

—Photo by Stanley Clisby Arthur

The Nesting of the Greater Yellow-legs in Manitoba.

(*Totanus melanoleucus*)

Last year (1914) the Greater Yellow-legs was only a migrant in this part of Manitoba. During the whole summer I did not see a single individual, until late in the autumn they arrived here in great numbers from their northern breeding grounds. If any of them remained here during the summer, they were so few that they entirely escaped by observation.

This year (1915) several pair remained here to breed. I am certain of at least three pair breeding within a radius of four miles from my home. One particular pair was constantly seen at our lake shore not more than two hundred yards from the house. It is hardly necessary to mention that I paid very close attention to the movements of these birds, having a slight hope of being able to locate their nest.

One morning in June, while I was with one of my neighbors building a fence through a slough, the big Yellow-legs were there also and appeared to be very much agitated about our presence. I felt sure that their home was somewhere near and partly forgetting my work, I commenced to match my wits against theirs. For the whole day this state of affairs continued and I must admit that I was completely defeated in the end. I hunted and watched the motions of the birds, but all that I gained by my efforts was the satisfaction of knowing that the female was setting somewhere, as she put in an appearance only once during the whole afternoon, while her mate circled about us nearly all the time; sometimes disappearing for half an hour or more and then returning again; but I never saw him perch on any of the nearby tree-tops, a fact that at last made me think that the nest was not, after all, as near as the anxiety of the birds indicated.

On the following day, June 24th, while on my way to look over some government haylands, I had to drive over a very nasty swamp, where no rig had ever passed before. This was about a quarter of a mile from the place where we had been building the fence on the day previous. Every thing went smooth until I was on the far side of the swamp where I saw a very soft and spongy looking spot right ahead of the horses. There was no way of getting around it, I either had to go over it or turn back entirely as Birch Lake was about two hundred yards on the right side of me and a small pond nearer still on the left. An old moose trail led through the swamp. For a moment I hesitated, then, thinking that as a moose had gone through it, the horses ought to be able to do the same, I gave them the word of command to go ahead. The obedient animals plunged at once into it and in a moment were wallowing up to their bellies in mud. Now and not before, the thought flashed through my mind that the moose that had made the trail had no wagon to pull through the mud hole.

The following moments certainly were full of excitement, but in about thirty seconds we had "made it" and were on the other side on "terra firma" once more. "Whoa," I yelled to the horses to give them a chance to take their wind and at that very moment a bird flew up right in front of the front wheel of the wagon. "Killdeer!" said the lad who was with me. "Like the dickens," said I, for there within twenty feet of us the Greater Yellow-legs lit upon the ground and anxiously started to watch our movements. I looked over the dashboard of the wagon and "lo and behold," there was the nest not more than one foot from the front wheel of the wagon. Less than half a minute before this I re-

gretted my foolhardiness for plunging the horses into the mudhole, but that feeling took the wings of the wind at the sight of the four beauties in the nest. And it was only a chance out of a thousand, as I am confident that the bird would have never exposed her treasures if we had been even a half a dozen steps away from her. So closely she sat that one of the horses had passed the nest within two feet of it and yet she did not raise until my "whoa" scared her and at the same time one of the heavy wheels threatened to crush both her and her treasures. The parent bird did not pretend to be lame like most of shorebirds do when anyone is approaching the nest, but stood on the ground nearby giving one a splendid opportunity for making the identification perfectly certain. In a little while the male bird came along and aided by his consort, he gave me a short lecture in the "kew-kew" language of his own.

The nest was just a depression in the moss, with a few bits of ivy grass as a lining. It had no shelter whatever, as a fire had swept over the place about a month previous to the finding of the nest so that there was not even grass growing anywhere near the nest.

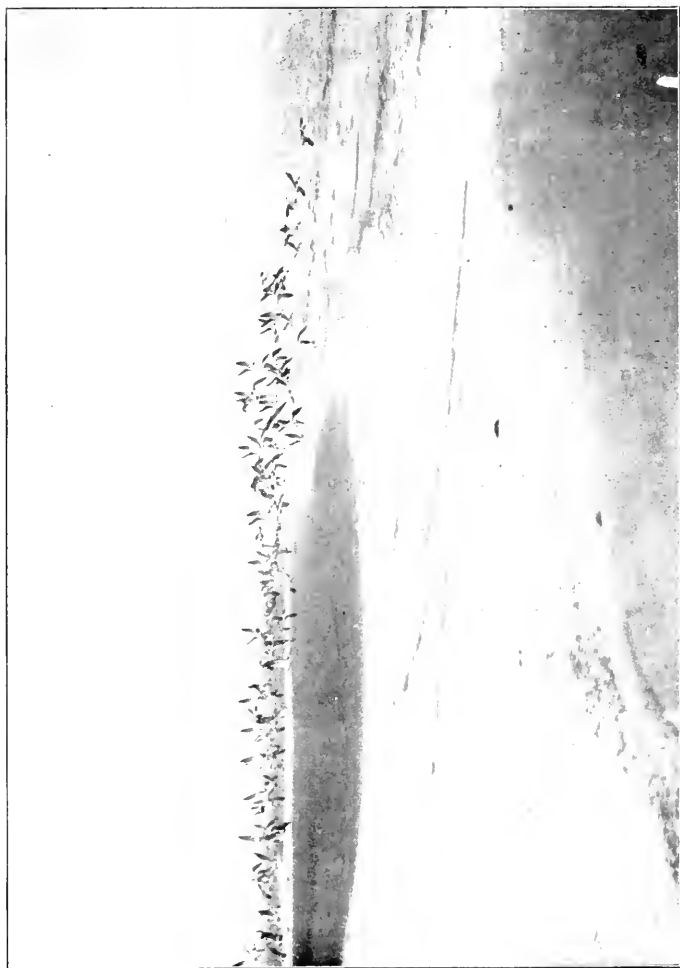
The eggs were badly incubated but by drilling the holes rather larger than the average and taking plenty of time and using great care, I succeeded in making first class cabinet specimens of them. They are pear-shaped with rather a glossy surface and measure as follows: 1.77 x 1.17, 1.73 x 1.18, 1.73 x 1.19 and 1.74 x 1.21. The ground color is about the same as that on the eggs of the Spotted Sandpiper; the spots are very dark brown and chestnut, with small, bluish-gray clouds underneath them. The smaller dots are evenly distributed over the entire surface of the eggs, the larger ones are all on the larger ends.

I am of the opinion that this is the first authentic set of eggs of the Greater Yellow-legs ever discovered in Manitoba, leaving out, of course, the so-called Keewatin district, which has recently been added to the province and which brings our new boundaries to the shores of Hudson's Bay.

Ernest S. Norman.

The Killdeer is Not Afraid.

I had frequently to walk over a certain stretch of the St. Paul railroad near Columbus, Wis., all this spring, and at about the time of working up the fields a pair of Killdeer disturbed in the fields I always started up on the track. I half suspected there was a nest, but could never surprise the bird, she would always see me and get up long before I got near her. Finally one day I almost stepped on the nest. It contained three eggs, so I did not disturb it as I wanted a complete set, if I collected them at all. The nest was of gravel; that is, a hollow scratched in the gravel and well lined with roots of dry grass, placed between the tracts four and one-half feet from the main rails and three and one-half feet from the siding rail; why this wild bird of the prairie selected this place for a home, where multiplied dozens of mile-long heavy freight trains thundered by all through the day and night and where scores of long, heavy passenger trains tore by at terrific speed, throughout the twenty-four hours, and besides hundreds of "hobos" tramped every day, called thither by the coming season, why this bird nested here I could not make up my mind. It was not far from a switch, so I decided to collect it, and when the fourth egg was laid, I collected nest and eggs, 26th of this year. Geo. W. H. vos Burgh.
July 7, 1915.



Black Skimmers baying like a pack of hounds, the flock wheel about you and skim along the surface in perfect unison. —Photo by Stanley Clisby Arthur

Abbott's Collection of North American Warblers' Eggs.

To "The Oologist":

Recognizing your shortage in notes and articles it might possibly interest the readers of THE OOLOGIST to know that I have about completed my collection of North American Warbler eggs.

While usually regarded as a crank on shore birds, I have not overlooked this interesting family of birds, the Warblers, and take pleasure in describing to you in what here follows the type set of each variety, the locality in which it was taken, date and name of the collector. Among these names the readers will recognize many able and experienced field men in their respective sections of the country.

Gerard Alan Abbott.

July 16, 1915.

Black and White Warbler—Sevier County, Ark., April 22, 1902, O. C. Sheley, Jr.; 5 eggs.

Prothonotary Warbler—Fulton County, Ill., May 27, 1912, W. S. Strode; 6 eggs.

Swainson's Warbler—Richmond County, Ga., June 18, 1903, M. T. Cleckley; 3 eggs.

Worm-eating Warbler—Chester County, Pa., May 31, 1904, Wilmer Woodward; 5 eggs.

Bachman's Warbler—Charleston County, S. C., April 13, 1907, Arthur T. Wayne; 4 eggs.

Blue-winged Warbler—Fairfield County, Conn., May 27, 1898, Henry W. Beers; 5 eggs.

Golden-winged Warbler—Yates County, N. Y., June 6, 1909, Clarence F. Stone; 5 eggs.

Lucy's Warbler—Cochise County, Arizona, May 15, 1902, O. W. Howard; 4 eggs.

Virginia's Warbler—Cochise County, Arizona, April 30, 1907, Virgil W. Owen; 5 eggs.

Nashville Warbler—East Wallingford, Vt., July 4, 1897, Duane Kent; 4 eggs.

Calaveras Warbler, Pierce County, Wash., June 11, 1905, E. S. Currie; 4 eggs.

Orange Crowned Warbler—Mador Township, Ontario, C. J. Young; 4 eggs.

Lutescent Warbler—Alameda County, Calif., May 25, 1898, Harold C. Ward; 4 eggs.

Tennessee Warbler—Gaff Topsail, Newfoundland, June 25, 1913, E. Arnold; 4 eggs.

Parula Warbler—Chatham County, Ga., April 23, 1914, G. R. Rossignol, Jr.; 4 eggs.

Northern Parula Warbler—Kings County, Nova Scotia, June 19, 1915, R. W. Tufts; 4 eggs.

Sennett's Warbler—Santa Maria, Texas, May 23, 1888, Vicinte Cavalos; 4 eggs.

Cape May Warbler—Aroostook County, Me., June 12, 1878; from collection Chic. Academy Science; 4 eggs.

Olive Warbler—Huachuca Mts., Arizona, June 8, 1909, F. C. Willard; 3 eggs.

Yellow Warbler—Lake County, Ind., May 30, 1914, G. A. Abbott; 4 eggs.

Sonora Yellow Warbler—San Pedro River, Arizona, May 20, 1906, H. N. Wolcott; 4 eggs.

Mangrove Warbler—Sinaloa, Mexico, April 14, 1910, E. F. Pope; 4 eggs.

Black-throated Blue Warbler—Price County, Wis., June 19, 1908, G. A. Abbott; 4 eggs.

Cairn's Warbler—Buncombe County, N. C., May 20, 1903, for S. B. Ladd; 5 eggs.

Myrtle Warbler—Kings County, Nova Scotia, May 31, 1915, R. W. Tufts; 4 eggs.

Audubon's Warbler—Pierce County, Wash., May 5, 1912, J. H. Bowles; 4 eggs.

Black-fronted Warbler—Magdalena, Mexico, May 12, 1911, E. F. Pope; 4 eggs.

Magnolia Warbler—Kings County, Nova Scotia, June 8, 1908, R. W. Tufts; 5 eggs.

Cerulean Warbler—Yates County, N. Y., May 31, 1909, C. F. Stone; 4 eggs.

Chestnut-sided Warbler—Price County, Wis., June 16, 1908, G. A. Abbott; 4 eggs.

Bay-breasted Warbler—Magdalen Isls., Gulf of St. Lawrence, June 23, 1898, W. E. Shelbourne; 4 eggs.

Blackpoll Warbler—Bretton Woods, N. H., June 19, 1908, F. B. Spaulding; 4 eggs.

- Blackburnian Warbler—Kings County, Nova Scotia, June 20, 1908, H. F. Tufts; 4 eggs.
- Yellow-throated Warbler—Chatham County, Ga., May 17, 1914, G. R. Rossignol, Jr.; 4 eggs.
- Sycamore Warbler—Colmesneil, Tex., July 1, 1913, E. F. Pope; 4 eggs.
- Grace's Warbler—Cochise County, Ariz., June 16, 1900, O. W. Howard; 3 eggs.
- Black-throated Gray Warbler—Los Angeles County, Calif., June 3, 1895, W. B. Judson; 4 eggs.
- Golden-Cheeked Warbler, Comal Co., Tex., Mar. 10, 1887; coll. for E. Recheilhor; 4 eggs
- Black-throated Green Warbler—Kings County, Nova Scotia, June 15, 1915, R. W. Tufts; 4 eggs.
- Townsend's Warbler—Yam Hill County, Ore., May 25, 1895, Arthur L. Pope; 5 eggs.
- Hermit Warbler—Pierce County, Wash., June 8, 1912, J. H. Bowles; 5 eggs.
- Kirtland's Warbler—Oscoda County, Mich., June 29, 1907, E. Arnold; 5 eggs.
- Pine Warbler—Chatham County, Ga., April 22, 1914, G. R. Rossignol, Jr.; 4 eggs.
- Yellow Palm Warbler—Queens County, Nova Scotia, May 30, 1914, H. F. Tufts; 4 eggs.
- Prairie Warbler—Middlesex County, Conn., June 12, 1899, C. H. Watrous; 4 eggs.
- Ovenbird—Price County, Wis., June 12, 1905, G. A. Abbott; 5 eggs.
- Water Thrush—Listowel, Ontario, May 31, 1903, Wm. L. Kells; 4 eggs.
- Louisiana Water Thrush—Yates County, N. Y., June 6, 1907, Verdi Burtch; 5 eggs.
- Kentucky Warbler—Chester County, Penn., May 27, 1911, Wilmer Woodward; 5 eggs.
- Connecticut Warbler—Calhoun County, Mich., May 27, 1899, E. Arnold; 2 eggs.
- Mourning Warbler—Yates County, N. Y., June 7, 1908, C. F. Stone; 4 eggs.
- Macgillivray's Warbler—Clackamas County, Ore., June 2, 1912, Harry Shoenborn; 4 eggs.
- Maryland Yellow-throat—Hillsdale County, Mich., May 24, 1897, G. A. Abbott; 4 eggs.
- Western Yellow-throat—Denver, Colorado, June 5, 1906, Harry G. Ulmer; 3 eggs.
- Florida Yellow-throat—Tampa, Florida, April 10, 1892, A. D. Peck; 4 eggs.
- Pacific Yellow-throat—Pierce County, Wash., May 26, 1897, J. H. Bowles; 4 eggs.
- Yellow-breasted Chat—Philo, Ills., June 10, 1900, Isaac E. Hess; 4 eggs.
- Long-tailed Chat—Brownsville, Texas, April 24, 1902, F. B. Armstrong; 5 eggs.
- Hooded Warbler—Chautauqua County, N. Y., June 18, 1895, Almon E. Kibbe; 4 eggs.
- Wilson's Warbler—St. John, New Brunswick, June 16, 1895, J. W. Banks; 6 eggs.
- Pileolated Warbler—Alameda County, Calif., June 8, 1907, J. D. Graves; 4 eggs.
- Canada Warbler—Saybrook, Conn., June 5, 1890, Jno. N. Clark; 5 eggs.
- Am. Redstart—Cook County, Ills., June 16, 1901, G. A. Abbott; 4 eggs.
- Painted Redstart—Cochise County, Arizona, June 12, 1904, Virgil W. Owen; 4 eggs.
- Red-faced Warbler—Cochise County, Arizona, June 13, 1904, F. C. Willard; 4 eggs.

We wish to thank Mr. Abbott, not only for the copy forwarded with the above but also to compliment him on the wonderful completeness of his Warbler collection. We doubt if there are many other North American collectors who have nearly as complete a sequence of the eggs of this family of birds, comprising as it does sixty-five of the species, sub-species and geographical races at present recognized by the A. O. U.

It was our privilege and pleasure to look over this collection of Warbler eggs some time since and can assure our readers that it is superior to anything of the kind that we have ever seen anywhere else.

We wish more of our subscribers would pay attention to our wails for copy.—Editor.

Two Sparrows of Sherburne County, Minnesota.

During the spring of 1915 I added to my list of Sherburne County birds two sparrows; the Field Sparrow and the Nelson Sparrow.

I find both are common birds and interesting from a musical standpoint. Though not a great musician, the Field Sparrow sings commonly in the middle of the driest, hottest days when other birds are silent, while the Nelson Sparrow does the same thing in the night, being especially musical on rainy or foggy nights. Both of these birds I believe to be new records for Sherburne County, not because they are rare or extending their range but for lack of collecting which would identify them.

Bernard Bailey.

A Systematic Study of the Diving Process of *Erismatura jamaicensis*.

For three years the writer has observed the Ruddy Duck (*Erismatura jamaicensis*) at "Nigger Sloughs," seventeen miles south of Los Angeles in Los Angeles County, Southern California.

The little "wire-tail" is a common resident of Southern California throughout the year. It breeds in tule marshes from the middle of April to the middle of June.

On April 9, 1913, the writer's attention was drawn to the peculiar diving process which is characteristic of the species. It was at East Marsh, a small slough adjoining the main lakes. We were fortunate to have been able to approach within seventeen feet of an adult male bird. He was resting quietly on the surface of the water among swamp willow trees; in a moment he was aware of our presence. He raised his head erect, his sinister eye was observant, curious and questioning. Then slowly he began to

paddle forward—we judge a distance of three feet and then, like a flash he disappeared beneath the surface of the water. Fortunately, the water was clear so that we could see him dive to the bottom and reappear again about twenty feet distant from the place from which he first appeared. We observed that the bird immediately rose out of the water and flew away.

Our study of the diving process of the *Erismatura jamaicensis* is quite technical and would take several pages of explanation to satisfy the readers. We have studied twenty-nine cases of the peculiar diving process of this species. The angle taken by the bird in its downward movement beneath the water and its reappearance to the surface again has computed together with the distance traveled under water in all cases. We have authentic data concerning its arrival and departure and the various factors governing its distribution in Southern California. This study is to be a contribution from the department of Experimental Biology in the University of Southern California. There will appear in our publication several photographs of the Ruddy Duck in various positions, together with maps and charts illustrative of every movement taken by the birds from the time they are discovered resting on the surface of the water until they reappear from their dive and fly away across the lakes or among the willow trees. We have completed observations of nine female and twenty male ducks of the genus *Erismatura*. We have to complete thirty-seven before the season closes.

We will submit for publication in THE OOLOGIST, at a later date a brief resume of our study of the diving process of this very interesting little species believing that it will be of general interest to those interested in Ornithological technique.

Alfred Cookman, A.B.

The Brewer's Blackbird in Sherbourne County, Minnesota.

On June 2, 1915, I closely observed a pair of Brewer Blackbirds in a field, six miles northwest of Elk River.

On June 24, 1915, eight miles north of Elk river I found about twenty or thirty pairs feeding young.

Bernard Bailey.

The Ducks of Douglas and Northern Charles Mix Counties, S. D.

In times past, waterfowl nested in abundance in this part of the state, but of late years they have gradually disappeared with the cultivation and settlement of this country.

The country is a rolling prairie, dotted here and there with ponds and sloughs. The largest and most popular resort for waterfowl is Lake Andes, in Northern Charles Mix and about ten miles from Armour. This body of water is some thirteen or fifteen miles long and affords very good hunting for sportsmen from nearby towns.

The following is a list of ducks observed during the years of 1909, 1910 and 1911:

Mergus Americanus—Merganser—A rather uncommon migrant.

Lophodytes cucullatus—Hooded merganser—Uncommon migrant.

Anas platyrhynchos—Mallard—Common migrant and probably a rare summer resident.

Chaulelasmus streperus—Gadwall—Usually a rather uncommon migrant.

Marcea Americana—Baldpate—An uncommon migrant.

Nettion carolinense—Greenwinged Teal—Common migrant.

Teal *Querquedula discors*—Bluewinged Teal—Abundant migrant and fairly common summer residents.

Spatula Clypeata—Shoveller—Fairly common summer resident.

Dapila acuta—Pintail—Common migrant and occasional summer resident. First duck to arrive in the spring.

Aix sponsa—Wood duck—Very rare migrant. In 1909 I mounted a male that was taken from a small flock but leave no later records.

Marila Americana—Redhead—A common migrant and probably a rare breeding bird. A pair was observed in a large marsh on May 30, 1911, but no nest was found.

Marila Valisineria—Canvas back—Rather scarce migrant.

Marila Marila—Scaup Duck—Migrant.

Claygula Calngula Americana—Golden-eye—Uncommon migrant.

Charitonetta Albeola—Buffle-head—Rather scarce migrant.

Erismatura jamaicensis—Ruddy Duck—Common migrant.

Alex Walker.

Johann Koren.

In yesterday's paper I noticed an item stating that Johann Koren had suffered the loss of hands from freezing while hunting Oological treasures in the cold country above Alaska. The world of science owes a lot to this man. For years he has spent his life hunting out the secrets of nature in the far North. Many collections in America are enriched by the specimens prepared by him. He has lived in Brooklyn, New York, recently and did a great deal of work for John E. Thayer, of Lancaster, Mass. I believe that it was Koren who made the eggs of the Spoon Bill Sandpiper known to science. He also brought to Brooklyn numerous eggs of the Vega Gull, the different sub-species of Ptarmigan and several of the extremely rare Sandpipers.

In the magazine published about a year since was a long illustrated account of one of his adventures in the Bering Sea where a companion tried to kill him as they were crossing the frozen sea and rob him of a rich load of fur pelts. He prepared good specimens and I have always found his data to be accurate. He deserves the sympathy of oologists in his great misfortune.

Robert P. Sharples.

July 24, 1915.

From San Francisco.

The following is a list of birds seen on a day's trip to Lake Merced about seven or eight miles out of San Francisco near the ocean, June 12, 1915:

Barn Owl.
 Western Grebe
 Chimney Swift.
 Bush Tit.
 Pied Billed Grebe.
 Great Blue Heron.
 American Coot.
 Pacific Loon.
 Long-tailed Chat.
 Barn Swallow.
 Bank Swallow.
 Rough-winged Swallow.
 Say's Phoebe.
 House Finch.
 Rusty Song Sparrow.
 Samuel's Song Sparrow.
 Alameda Song Sparrow.
 Olive Backed Thrush.
 Cicolored Blackbird.
 Pacific Yellow-throat.
 McGillvary's Warbler.
 Arkansas Goldfinch.
 California Goldfinch.
 Western Horned Lark.
 Western Black Meadowlark.
 Western Gull.

Besides seeing these birds I found nests of the following. (I was looking for Goldfinches especially):

Three California Goldfinch, with 4, 3, 5 eggs respectively.

Two Arkansas Goldfinch, with 4, 4 eggs respectively.

One Alameda Song Sparrow with 3 eggs and another with young.

Eight House Finches with sets varying from 3 to 5 eggs.

1 Bush Tit with 9 eggs.

About 200 Bank and Rough-winged Swallows' nests with eggs and young.

One Barn Owl, with 3 young.

One Rusty Song Sparrow with 5 eggs.

One Samuel's Song Sparrow, with 3 eggs.

One Pacific Yellow-throat, with young.

One American Coot's nest with 6 eggs.

Besides these I found several Hummers' nests and caught one young McGillvary's Warbler and one Pacific Yellow-throat.

Dudley De Groot.

 Shore Birds.

The Year Book of the Department of Agriculture for 1914 contains (pages 275-294) a paper on "Our Shore Birds and Their Future," by Wells W. Cooke of the Biological Survey, which is well worth the perusal of any person interested in this family of birds, one of the most wonderful families of birds there is.

This paper is illustrated by a number of half tones and various maps showing the habitat in winter and summer, and the migration routes and breeding territory of these various birds, and is in all a very creditable production, closing as it does as an appeal for the protection of these birds to prevent their complete extinction, in which recommendation THE OOLOGIST is very glad to join.

 Notes From the Waukegan, Ill., Flats.

On June 8, 1915, Colin C. Sanborn and I went on a collecting trip to the Waukegan Flats in the northern part of Lake County, Illinois. The Flats lay just north of the city of Waukegan along Lake Michigan, covering about 500 acres and are made up of three regions. The greater part is covered with alternate ridges of sand and sloughs of from ten to forty feet in width. Another part is covered with pine trees and cedar brush, while the third is simply a flat waste of sand

upon which a few flowers and sparse grass grow.

First we searched for Spotted Sandpipers, but they were much less abundant than in 1914 and we were unable to locate any nests. We then waded through some of the sloughs after Least Bitterns and American Bitterns. These were not nesting in the same places that we found them in a few days earlier in 1914 and we were again disappointed in not finding any nests. We found many Red-wing nests, which contained mostly full sets of eggs, and also eight Long-billed Marsh Wren nests with from one to five eggs.

From there we walked along one of the sand ridges to a large dead pine which looked good for a Sparrow Hawk's nest. Before reaching the stub a Flicker flew out of a hole about 20 feet up. I climbed up and reaching in an arm's length felt the whole floor of the cavity covered with eggs. The nest contained 12 eggs, all of which were about half incubated except two. One of these was bad and watery, and the other was about the size of a Red-headed Woodpecker's egg and was fresh. This is the largest set of Flicker eggs I have ever heard of having been taken at one time.

A few hundred yards farther on we flushed a sparrow from a nest on a horizontal branch of a pine tree about ten feet up and containing three young a week old. The nest was made of fine rootlets and grass, and I at once took it to be a Chipping Sparrow's, many of which I have found in the South. The owner soon came back and was recognized as a Chipping Sparrow. We were much elated at this find for this variety of sparrow has not been found breeding in Lake County for some years. Mr. Henry K. Coale states that he has never seen a Chipping Sparrow in Lake County in the twenty years of his residence and

collecting throughout this region. We were still more surprised to find two more Chippy nests with three and four eggs. These last two nests were situated in cedar brush one and two feet from the ground.

Walter A. Goelitz.

Bobolinks.

During the season of 1915 Bobolinks seemed to be uncommonly plentiful and I found a number of five sets. One set of five and nest collected June 2d; one set of five and nest collected June 15th; and one set of seven and nest collected June 15th.

George W. H. vosBurgh.

Dove's Nest.

On July 29th, 1915, in Austinburg Township, Ashtabula County, Ohio, I found a mourning dove's nest containing three young doves all of one size. Nest placed on the forked limb of an old apple tree. This is the first time I have ever found a nest of this bird with more than two eggs or young in. I have found several of the nests on the ground.

S. V. Wharram.

Suggests Method of Saving Trumpeter Swan.

Mr. R. M. Barnes of Lacon, Ill., suggests a method of saving the trumpeter swan from extinction in a letter to the "Bulletin," which it takes pleasure in reproducing herewith:

"I should be very glad to see your organization endeavor to perpetuate the trumpeter swan which I regard as the most magnificent of all North American birds. This bird is now on the verge of extinction. John M. Thayer, of Lancaster, Mass., has one, the New York Biological [Zoological?] Gardens have two, the Lincoln Park in Chicago has two, and I have three on my home place here. These are the only birds of this species that I know

of in existence in the world. They ought to be gathered together in one flock and placed on a lake somewhere in Minnesota, which is their natural breeding ground. The lake should be large enough to afford each pair of birds a place where they could seek privacy and should be guarded by competent naturalists who are willing to act as game wardens, and should be fenced. I have repeatedly said that I would be one of ten to contribute \$1,000 towards making this experiment, and unless some such thing is done it will not be long until the trumpeter swan will follow the passenger pigeon and the Carolina parakeet off the map.

"I have already presented this matter to Mr. Thayer, who is willing to contribute his bird. The superintendent of the New York Biological [Zoological?] Gardens, with whom I had an interview on this subject three years ago this summer, advised me that if there was any prospect of this being done his institution would contribute the pair of birds they have and \$1,000 in money. If the work proposed is done, it should not be made a matter of general contribution, but ten men who are enough interested to contribute \$1,000 apiece ought to go into it together."—Bulletin American Game Protective Association, July 15, 1915.

Nests of the Shoveller.

Spatula Clypeata.

On May 21, 1910 I found my first Shoveller nest near Armour, South Dakota. While exploring a colony of Redwings I started to climb a hay stack, placed there in the dry season, but now surrounded by water. I had taken but a step or two, when with a sudden "whirr" a female Shoveller bounded into the air, and there at the top of the stack in a hollow limb with dark colored down, were ten heavily incubated eggs.

I found my second nest May 31, 1911 while collecting in a large marsh inhabited by a thousand or more pair of Yellow-headed Blackbirds.

As I drew near to a large muskrat house I noticed a Shoveller squatting close to it, as if to escape detection, but when I approached a few yards closer, she flushed, disclosing six large eggs in an advanced stage of incubation.

My data for this set reads—"Just a hollow in the top of a large muskrat house, located in a shallow marsh. A rim around the top edge of the depression, composed of feathers and fine broken bits of dry weeds."

Alex Walker.

English Sparrow.

Passer domesticus.

Miss Helen Pritchett, a neighbor of mine, handed me three white eggs the other day and called them English Sparrow.

As I have never seen White English Sparrow eggs before I was not satisfied until I visited the nest. It was made in the end of a green sunshade that was partly rolled up on the third story porch of a flat. The nest was composed of dead grasses and strings and lined with a few feathers.

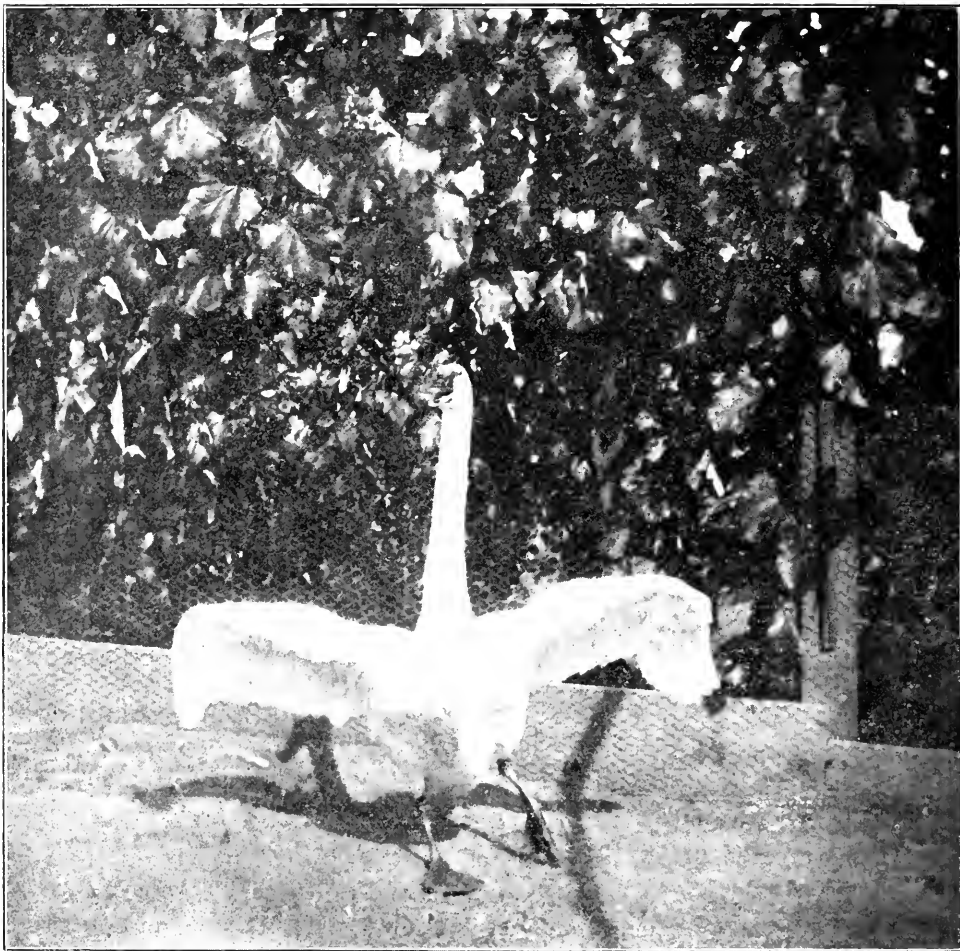
The eggs are white with moderate glass; faintly and sparingly spotted near the large end. They look like Swallow eggs with the naked eye.

Has anyone found white eggs of the English Sparrow before?●

E. J. Darlington.

July 25, 1915.

We have in our collection two sets of Albino eggs of the English Sparrow; one of five eggs which was taken here in Lacon, and was noted in THE OOLOGIST some years ago.—Editor.



Trumpeter Swan on the Editor's home place, protesting against having his photo taken and threatening to charge the photographer, August, 1914.

—Photo by Charles E. Martin

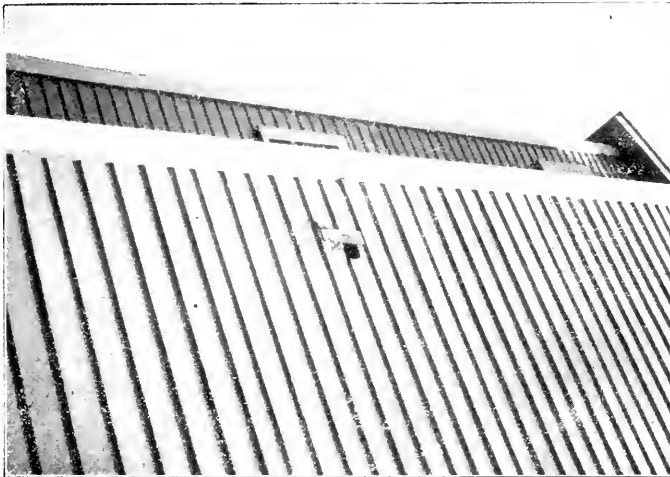
THE OÖLOGIST.

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Nesting Site of the Florida Screech Owl

—Photo by H. W. Atkins

**Notes on Visits of Col. Roosevelt
To Bird Reservoirs in Louisiana.**

Former-president Theodore Roosevelt, as guest of John M. Parker, well-known Louisiana sportsman, and M. L. Alexander, president of the Conservation Commission of Louisiana, made a six days' tour of inspection of the islands off the Louisiana coast, east of the Mississippi river, June 8 to 12, seeing the many gulls, terns, skimmers and other specimens of avian life that use these sandy fragments of land along the Gulf of Mexico as breeding places.

Many of the islands visited were United States Government reservations set aside for such purposes while Col. Roosevelt was president, and others were those given over as game and waterfowl refuges by the Conservation Commission of Louisiana.

The former president left Pass Christian at daybreak June 8, accompanied by John M. Parker, his two sons Tom A. and John Jr., Herbert K. Job, head of the Department of Applied Ornithology, National Association of Audubon Societies, who made the photographs that Col. Roosevelt will use to illustrate his Scribner article on the protection given breeding birds in Louisiana and other conservation work in vogue there.

The tour embraced a survey of the Chandeleur, Free Mason, North Harbor, Grand Cochere, Battledore, and Breton Islands. Col. Roosevelt landed at most of them and made intimate studies of the nesting birds as to their habits, number of eggs deposited and the great numbers that congregate on the different sandy spits that line the gulf off the Louisiana coast.

Thursday, June 10th, the party was joined by President M. L. Alexander, president of the Conservation Commission of Louisiana, and Stanley Clisby Arthur, the commission's ornithologist. Mr. Alexander explained to the dis-

tinguished visiting naturalist the various plans for conserving the game and bird life of the state under the advanced theories practiced by the Commission and Mr. Arthur gave Col. Roosevelt first hand information regarding the nesting habits and zonal peculiarities of many species of waterfowl that have selected Louisiana as a breeding home since the establishment of game preserves and gave other information about bird life in parts of the state that Col. Roosevelt found impossible to visit owing to his limited stay in the South.

[The photo accompanying this article appeared in the last issue of THE OOLOGIST.—Editor.]

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Good.

We are pleased to receive a circular from the Department of Agriculture at Washington, to the effect that "The migratory bird law is to be enforced. Sportsmen warned that federal regulations for the protection of wild fowl must be observed."

We trust that this means exactly what it says, and that all persons violating this Federal bird law this fall season will be prosecuted without fear or favor, and anything that we can do to assist in this matter will be gladly done. If the birds are not protected we will have no birds.

◆◆◆

American Bittern.

"George, we've found that bird's nest you wanted, four eggs.—in nest—kind a gr—in grass, gray, tall—in marsh—bird sits—bird fights—like this—like everything, etc."; thus I was stormed one gloomy day about June 7th by the girl and boy where I was staying. A few questions convinced me that instead of the nest and eggs I wanted, that it was a nest of the American Bittern. They would sell the eggs to me for two dollars but I declined, later the bird deserted the nest and I bought them considerably cheaper and they

were a nice set. I tramped a great deal in and around many Sora Virginia Rails nests, and also many Long-billed Wrens nests with eggs.

Geo. W. H. vos Burgh.

A New Louisiana Bird.

The observance of a solitary species of bird life has not only supplied the Louisiana list with a new bird but with the one order of the seventeen found in the United States that has been missing since the avian life of the state has been studied by those who preceded Audubon and those who followed him.

The species observed was a Wilson petrel (*Oceanites oceanicus*), sometimes known as one of "Mother Cary's Chickens," of the order Tubinares, or tube-nosed swimmers, which includes, besides the petrels, the fulmars and shearwaters. The discovery was made by Herbert K. Job, head of the Department of Applied Ornithology of the National Association of Audubon Societies, and Stanley Clisby Arthur, ornithologist of the Conservation Commission of Louisiana, while they were on an expedition to the bird breeding islands along the Louisiana coast west of the Mississippi river, June 23, 1915.

The petrel, when observed, was about a mile off shore paddling the rough waters of the Gulf of Mexico and about seven miles west of Grand Isle. The stranger to the Pelican State circled the Commission's patrol boat "Opelousas" several times but, although efforts were made by throwing lard on the waters to entice it close enough to the boat to be photographed, the bird finally flew out of sight, not before, however, the ornithologists had studied it through binoculars for over a quarter of an hour.

Although both Mr. Job and Mr. Arthur kept close watch for other specimens of the same species during the

remaining five days of the trip no other petrels were sighted and the specimen they did see was absolutely alone.

Ornithological Magazines.

The magazines of the country more or less devoted to the Study of Ornithology have shown a decided awakening and improvement of late.

THE AWK for July comes as usual, does the recognized Organ of the Technical Student ponderously full of up-to-date information.

THE CONDOR for July and August as usual stands as the exponent of Western Ornithology and is well worth perusal at any time. The July and August number being no exception.

The BLUE BIRD has commenced a publication of a series of illustrated articles accompanied by colored plates "of the eggs of North America Water Birds" by Dr. R. W. Shufeldt which alone should increase its circulation among studies of Oology. The August number contains the second installment of these series and papers and is a splendid contribution to that subject.

THE ORIOLE is forging rapidly ahead, it being the official organ of the Summerset Hill's Bird Club and is issuing its birds as they come forth and reproduction of the colored plates of North American Birds by the Audubon Society. The August number contains a specially interesting contribution on the Birds of Egypt.

THE GUIDE TO NATURE with its September issue inaugurated a department on Ornithology in charge of Harry B. Higbee. The first contribution being "A visit to the home of the American Eagle by Dr. R. W. King accompanied by six photographic half tones of the nests, young, etc., of the bird, a very creditable paper and this department should increase the circulation of this well-known magazine among bird lovers if it is kept up to the standard attained in the first issue thereof.



Pair of California Screech Owls. Pets in confinement

—Photo by H. C. Burt

Breeding Birds of Harrison Co., Texas.

As there is not much said about the birds that breed in this part of Texas, I beg to submit the following facts regarding the scarcity and abundance of the birds that breed around Marshall.

The Baltimore Oriole was one of the first birds I ever knew, I have found many of their nests and have observed many birds. But have not seen one individual in eight years.

The Purple Martin would usually come here in the spring in droves of five hundred or more and about one-third of this amount would nest in the same place each year, but as years pass by they decrease in number.

Chimney Swifts are still plentiful. This year I saw as many as four hundred go to roost in the City Hall chimney which would take nearly one hour for them to file in, one by one.

Robins were very scarce here last winter, didn't see but three birds altogether. Have only two records of them breeding here.

Blackbirds were also scarce last winter.

R. T. Humming birds—Very plentiful this year.

R. Eyed Vireo—Very plentiful this year.

Tufted Titmouse—Very common this year.

Mourning Dove—Very common this year.

Carolina Chickadee—Very common this year.

Maryland Yellow-throat—Very common this year.

Carolina Wren—Very common this year.

Wood Thrush—Very common this year.

Bob White—Rather decreasing this year.

Sparrow Hawk—Rather scarce this year.

Brown Thrasher—Very scarce this year.

Red-shouldered Hawk—Common this year.

Turkey Vulture—Common this year.

Schreech Owl—Rather scarce this year.

Cooper's Hawk—Have only one record of its nesting here.

Earl E. Moffat.

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From Georgia Again.

When I wrote you last it was nearly spring. I must tell you what the Georgia birds are doing in mid-summer. I used to take my air gun or 22 rifle when I went into the woods to study the birds, but I enjoy it better since all temptation to take a shot has been removed. I used to watch them and study them from a leafy spot and let me tell you I have taken a peep into a hundred nests.

I'll tell you about a Yellow-hammer's nest in a hole under a rocky ledge; so many of the boys in the neighborhood knew of the nest. It was robbed six times of whole sets before I began to guard her nest. She at last hatched her brood in the same nest.

I put a lot of bird houses in the grove about our home but flying squirrels took possession of them. However, a downy pecked the door of one house until it would admit her, (I made it for Wrens) and was building when she left it, as a family of flying squirrels were in the apartment next door. Two Thrushes and a Pewee built in the oaks about twenty feet high. Great droves of Jays have noisily visited us daily. I take a shot at them for being so saucy sometimes. I fear they will drive our cat birds and Mocking birds away. I haven't seen a Mocking bird's nest this season, but the birds sing in our groves daily. I caught some fine butterflies and moths this summer.

I love to read THE OOLOGIST. I am just ten years old now, but I am going to be a naturalist.

Lynn Taylor.



Young Arkansas Kingbird taken at Armour, S. D., June 30, 1911
—Photo by Alex Walker



Young Arkansas Kingbird at Armour, S. D., June 30, 1911

—Photo by Alex Walker

Some Western Birds—Phainopepla.

It is safe to state that every bird-lover has some favorite amongst the numerous species of the feathered tribe familiar to him, of which the first appearance in the spring is more eagerly awaited than that of any other bird. Should I be asked to name my favorite from the nearly four hundred species and sub-species known to Southern California, my unhesitating choice would be—Phainopepla Nitens.

The bird is peculiar to the southwestern portion of the United States, ranging from the Mexican Valley north to southern Utah and Nevada; and from the Rio Grande through New Mexico and Arizona to the Pacific. Under any circumstances this interesting species would be welcome to the ornithologist, but how much more so when found in the dry arid regions of the West where bird-life is scarce, often the other species being numbered on the fingers of one hand.

His neat and immaculate appearance always arouses immediate admiration and attention. The male, glossy blue-black except for pure white patches on the inner webs of the primaries, presents a striking picture as he flies leisurely from one perch to another. The female is more sombre in dress, the shining coat of the male being replaced by a dull grayish brown coloring and the white wing patches not being so much in evidence. Both sexes boast a long narrow crest like that of a cockatoo, by means of which the bird is able to express varying emotions. When curiosity is aroused this crest is raised and lowered in an inquiring manner, but let anger get the upper hand and it fairly bristles with rage as the bird shrieks his harsh note of alarm.

Like his Eastern cousin the Cedar Waxwing, our Phainopepla feeds on various berries and insects. Pepper,

mistletoe, and elder berries are most in demand. The insects are taken on the wing in the same manner as by the flycatchers, a habit which gives him one of his numerous local names, "Black Flycatcher." In California the ranchers also call this bird "Wax-wing," "White-winged Blackbird," and "Black Mockingbird"; the last name probably suggested by his manner of flight: the leisurely direct movement being similar to that of the Mockingbird. Often the Phainopepla will leave his perch, hover in the air above it for a moment and then return, much as does the Bluebird.

While not remarkable for his vocal powers, the Phainopepla possesses a variety of notes, especially through the breeding season. The commonest call has been likened to that of a young Robin. The alarm-note is a harsh protracted chatter, accompanied by a raising and lowering of the crest. Throughout the period of courtship, nest-building, and incubation, the male sings almost incessantly during the daytime. Selecting a perch near his mate he utters a few notes, flies straight up into the air, performs various aerial feats; and then returns to the side of his companion, pouring forth a continuous medley of weak "rusty" notes (if the word may be allowed), though not unpleasant to the ear.

As with other birds, the Phainopepla is most interesting in the breeding season. In Southern California the birds begin to arrive early in April, and from May to July the nests may be found in the dry sandy washes and arroyos of the Lower Sonoran zone, a region inhabited by the Valley Quail, Roadrunner, and Cactus Wren. Oak, elder and pepper trees are favorite nesting-sites, as well as junipers, willows, sycamores and clumps of mistletoe.

The nests are rather loosely constructed shallow saucers of plant fibres, stems, blossoms and down, fastened to small twigs. One nest that I found this season was entirely of sage leaves and oak blossoms and was so frail that it fell to pieces as I attempted to remove it from the tree. I once found a nest in a fork of a willow where the single egg rested on the rough bark of the tree with no lining beneath. About twelve feet is the average height of the nest from the ground, many of them much lower. In the San Fernando valley the Phainopepla nests in stunted elders five or six feet high, so low that other tree-nesting species disdain to use them.

The eggs number from one to three, most often two. The shell is grayish, greenish, or purplish white, spotted heavily over the entire surface with small specks of black, brown and lilac. The average size is .88 x .66 inches, and the shape is most often elliptical or nearly so, the smaller end never being sharply pointed.

The male seems to do most of the nest-building and a good share of the incubating, which lasts twelve to fourteen days; while his spouse gathers in the tree-tops with the other care-free matrons of her tribe.

The foregoing presents but a crude picture of a remarkable bird; it requires the wielding of a more skillful pen than mine to do him justice; but this rough sketch may serve to give the reader some idea of one of the most picturesque species to be found in the West.

D. I. Shepardson.

Los Angeles, Cal.

A Pleasure.

Once in a while a real pleasure drifts across the desk of an Editor of a publication like this and it was a real pleasure to receive a letter from

John Stevens of Moscow, Pa., who is in his eightieth year and in a precarious state of health, enclosing a subscription to THE OOLOGIST, being even at that age unable to get along without our little publication. It is an old adage, "Once an Oologist, always an Oologist."

Fire-Lighting.

In certain sea coast sections of our country "fire-lighting" used to be a very common method of getting shore birds at night. Of course, this was before the enactment of laws protecting game birds and wild fowl, when birds visited us in great flocks unfrightened and unsuspecting.

The flocks, as is true of most birds, rested on the flats at night. One man would carry a lantern on which was a very strong reflector; a second man went carefully along and grasped the birds as the light was turned on to dazzle them. As the second man always kept in the shadow, the birds were very much puzzled and did not move, even though they saw many of their number disappear into the darkness. One would naturally think that the birds would cry out when seized; undoubtedly they would have done so if they could, but the man who did the catching always grasped them one at a time by the neck so as to prevent any outcry, and after killing them, he placed them in a bag so as to prevent any fluttering that might alarm the others in the flock. In this way two men could visit the flats and in one night get hundreds of birds, but in those days when shore birds came by the thousands, and when even in Boston markets they brought only two or three cents apiece, nothing was thought of such useless and extravagant killing. Later, when shore birds began to be alarmingly scarce, laws were passed protecting them and a ban was placed on such methods of slaughtering them.—The Classmate.

W. A. STRONG.

San Jose, Cal.

E. J. Darlington.

It is with a real feeling of sorrow that we are called upon to note the death of Mr. E. J. Darlington on August 7th, at his home in Wilmington, Delaware. For a long time we had known Mr. Darlington by correspondence, never having met him personally. We can truthfully say that we have never dealt with an oologist in which he impressed us as being superior to Mr. Darlington, either in character or ability. His specimens were always absolutely "A 1," and of these we received many which will rest in our private collection as long as we remain on earth.

Mr. Darlington was at all times a good friend of the Oologist and one willing and glad to give the benefit of his observations to his fellow oologists, being specially a student of that branch of science.

Since THE OOLOGIST came under our management, Mr. Darlington has contributed the following papers:

"Bald Eagle," Volume XXVI, page 75.

"Abnormal Eggs," volume XXIX, page 15.

"Bald Eagles," Volume XXIX, page 206.

"Kingfisher," volume XXIX, page 228.

"Purple Grackle," volume XXIX, page 263.

"Kentucky Warblers," volume XXIX, page 303.

"The Lure of the Wild and the Bachelor nest of the Bald Eagle," volume XXX, page 28.

"In Memory of William B. Crispin," volume XXX, page 91.

"W. B. Crispin's Collection," Volume XXXI, page 45.

"What are They," volume XXXI, page 89.

"Scarlet Tanager," volume XXXI, page 89.

"Ospreys," Volume XXXI, page 199.

"Set Marks," volume XXXII, page 14.

"Golden-fronted Woodpecker Eggs," volume XXXII, page 64.

This latter is an answer to the query of above quoted, "What are They?"

"English Sparrow White Eggs," volume XXXII, page 135.

The latter paper being published in the last issue of THE OOLOGIST, and it is with sorrow that we realize that we have received the last manuscript for publication from one that we knew long and well by correspondence and upon whom we could rely as a friend of THE OOLOGIST.—Editor.

Mr. Kentworthy, a close friend of Mr. Darlington, contributes the following appreciation of the deceased:

Mr. Eben Jackson Darlington was born August 31, 1856, in Chester County, Pennsylvania. He took up birds' eggs when he was about 14 years old and used to collect only two of a kind but when he came to Wilmington, Delaware, he dropped his two egg collecting and collected sets.

He gradually employed people to collect for him and when he received a "lot" of eggs, he would pick out the "cream," disposing of the rest.

He collected for a while and then lost interest in oology for about twelve years when he resumed collecting in earnest and kept it up.

He became acquainted with the late William B. Crispin and used to go collecting with him until Mr. Crispin's decease in 1913.

I met Mr. Darlington about April, 1912, but never became really acquainted with him until September 30th of that year when I started collecting eggs "right." We would go collecting Saturday afternoons and Sundays, and while we did not get a great many eggs, we enjoyed each other's companionship and the opportunity to study oology and ornithology.

We told each other our gains and troubles and he would advise me as to what I should do.

He died on August 7, 1915, at his home, 2301 Monroe street, after a prolonged sickness and his loss was much bereaved by his friends and family.

R. P. Sharples of West Chester, Pennsylvania, sends us the following relative to Mr. Darlington:

"Mr. E. J. Darlington, a prominent oologist of Wilmington, Delaware, died on August 7th of this year. He had a fine collection of over five hundred species and sub-species of eggs and was an enthusiastic collector. Among his other treasures is a set of four Bald Eagle eggs taken near his home. He also had for exchange every spring sets of Ferruginous Rough Leg, Prairie Falcon, Osprey and one or two other raptures. Mr. Darlington has been in failing health for over a year, though he kept up his interest in the egg collecting until the close of his life."

Joys of Editorship.

Sometime since one W. L. Brownell of New York City wrote to ascertain if we desired to buy certain back numbers of THE OOLOGIST. We replied that we did not at this time. A later mail brings a postal card reading as follows:

"Dear Sir:

"Apparently then your publication is worthless, in that case kindly discontinue my subscription. You may publish this if you care to do so."

The subscription has been discontinued and THE OOLOGIST will continue to be published!

Since receiving the above a later mail brings an advertisement to be published in this issue offering these same back numbers for sale. Strange that a person should want to advertise for sale something that is "worth-

less." Do you think really that you can find this ad in this issue?—Editor.

Large Sets of 1915.

1. April 9, 1915, Lake Co., Ill.—Crow, seven eggs. Nest made of sticks with thickly felted lining of grass and horse hair; placed against the main trunk of a slightly leaning oak tree.

2. May 1, 1915., Piatt County, Ill.—Tufted Titmouse, seven eggs. Nest about forty feet up in a hollow limb of a White Oak tree. The cavity was ten inches deep and the lining was composed of weeds, grass, feathers, hair, snake skin, and many of those round scales which spiders make to cover their eggs. It took me ten minutes to get the female off the nest and as much more to hook the seven beautiful eggs up with a crotched twig.

3. May 1, 1915, Piatt Co., Ill.—Tufted Titmouse, seven eggs and one Cowbird. Nest ten feet up in cavity in the under side of a leaning Ash tree on a river bank. I pulled out a little nesting material to get at the eggs which, to my sorrow, dislodged the whole set of eggs and sent them splashing into the water below.

4. May 2, 1915, Piatt Co., Ill.—Caroline Chickadee, eight eggs. Nest two feet above the ground in a half-dead Ash stub four inches through. Lining composed mostly of rabbit hair upon which lay the eight, nearly round eggs. A good set sparingly spotted with medium sized, reddish-brown blotches.

5. May 8, 1915, Piatt Co., Ill.—Phoebe, six eggs. Nest was usual structure of moss, mud, hair, and grass situated in a small culvert probably two feet wide and three high. The six white eggs were too badly incubated to save.

6. May 13, 1915, Champaign County, Ill.—Field Sparrow, five eggs. Nest

four inches above the ground in a clump of Sweet Clover along the bank of a drainage ditch. The eggs were alike in coloring and the other three matched. The nest was made wholly of grass.

7. May 20, 1915, Champaign Co., Ill.—Rough-winged Swallow, seven eggs. Nest two feet back in the bank of a drainage ditch, eight feet from water and two feet from the top of the bank. Small cavity at end of tunnel lined with an inch mat of coarse weed stems. Eggs badly incubated.

8. May 22, 1915, Champaign Co., Ill.—Rough-winged Swallow, seven eggs. Nest three feet back in center of a twelve foot bank. Lining composed of weed stems and rootlets. Eggs fresh.

9. May 30, 1915, Piatt Co., Ill.—Blue-gray Gnatcatcher, five eggs. Nest made of grass and covered with lichens and cobwebs; two inches in height and as many wide. It was situated thirty-five feet up and twelve feet out on a limb of a Red Oak tree. The nest was still being built on May 23, and yet contained a full set of five fresh eggs on the thirteenth.

10. June 1, 1915, Champaign Co., Ill.—House Wren, seven eggs. Nest in a hollow in an apple tree stub in the University of Illinois Forestry. The cavity was five feet above the ground and was filled with twigs and a few white masses of cobwebs.

11. June 3, 1915., Champaign Co., Ill.—Grasshopper Sparrow, five eggs. Nest made of grass and sunken into the ground at the base of a Red Clover stalk. The bird was flushed from the nest by a class on a field trip. One of the five eggs was fresh and the other four were badly incubated.

12. June 7, 1915, Lake Co., Ill.—King Rail, twelve eggs. Nest in a small clump of rushes six feet in diameter in a small swamp 100 x 50 feet and

about 20 feet from the Lake Michigan bluff. The swamp was in an open field which is frequented by one thousand people every Saturday and Sunday during the summer. It was situated in water two feet deep and twenty feet from shore.

13. June 9, 1915, Lake County, Ill. Catbird, five eggs. Nest three feet off the ground in a thicket along the lake shore and made of weeds, rootlets and the usual rubbish. Eggs fresh.

14. June 12, 1915, Lake Co., Ill.—Northern Flicker, twelve eggs. Nest in a Pine stub on the Waukegan Flats. (Oologist No. —.)

15. June 15, 1915., Lake County, Ill.—Red-winged Blackbird, five eggs. This is the only set of five eggs I have found after examining over two hundred nests. This one was situated in a stunted bush in a small marsh and was made wholly of long marsh grass. Three of the eggs had a bluish ground color and the others had a greenish-gray ground color. The eggs were too badly incubated to blow.

16. June 15, 1915, Cook Co., Ill.—Long-billed Marsh Wren, seven eggs. Nest a globe-shaped structure of woven reeds lined with cat-tail down. The entrance on the north side led inward three inches before turning downward into the thick-walled nest. The nest was located two feet above water a few inches deep in the Skokie Marsh.

17. June 16, 1915., Lake Co., Ill.—Yellow Warbler, five young. Nest situated fifty feet back from the Lake Michigan bluff, and two and a half feet up in a small Haw Apple tree. It was made of fine grass and lined with horse hair and some cottony substance. When found the nest contained five young about a day old.

18. June 17, 1915., Cook Co., Ill.—Maryland Yellow-throat, five eggs. Nest four inches above the ground in a patch of two foot weeds along the

edge of the Skokie Marsh twenty feet from a small wood. It was made of grass, weeds, and lined with horse hair. Fresh.

19. July 8, 1915, Lake Co., Ill.—Least Bittern, five eggs. Nest in a bed of dead reeds and cat-tails at Butler's Lake. It was located a foot above water three feet deep. Eggs nearly fresh.

20. July 26, 1915, Lake Co., Ill.—Cedar Waxwing, six eggs. Nest situated fourteen feet up in a Haw Apple tree standing in a vacant lot between two houses and was made of weed stems and lined with fine grass. Incubation started.

21. August 27, 1915, Lake Co., Ill.—Goldfinch, six eggs. Nest six feet up in a Sumach shrub within eight feet of an interurban carline over which a car passes every ten minutes. Composed of fine grass and thistle down. Incubation advanced.

Walter A. Goetz.

Ravina, Ill.

Interesting Sets in My Shore Bird Collection.

Gerald A. Abbott.

Having received many favorable comments on a recently published list of Warbler's eggs, it might not be amiss for me to quote interesting data from fifty varieties of shore birds eggs in my cabinet. I have refrained from listing some because they are extremely accidental on our list and are so nearly identical with some of our truly American forms. This is true of the Ring Plover, Dunlin, Black-tailed Godwit, European Golden Plover and Oystercatcher.

222 2 Sets of Red Phalarope from Point Barrow, one containing the unusual number of five eggs. Collector, William E. Snyder.

223 $\frac{1}{4}$ Northern Phalarope, taken by Joseph Grinnell, at Cape Glossom, Alaska. These eggs look somewhat

different from any Iceland sets that I have seen.

224 Wilson's Phalarope. I have a nice little series of these from Wisconsin, North Dakota and Illinois.

225 Avocet. Originally these eggs do not vary greatly in size or color, but the alkali on which they are deposited bleaches or dyes the shell. Aside from personally collecting eggs from North Dakota the others are from Salt Lake, Utah.

226 Black-necked Stilt. I consider these eggs more attractive as a whole than those of the former variety. I have a pretty series taken from colonies about Salt Lake by the Trefianzas.

(227) European Woodcock. I have two very large handsome sets from Scotland. The eggs in one clutch are wreathed.

228 American Woodcock. Probably the finest personally collected series known. By hard and persistent searching I have found over 125 nests of this popular wader. From this number I have saved some remarkable types.

229 European Snipe. I have selected several types of the English Snipe eggs for the purpose of comparison.

230 Wilson's Snipe. I have a large series, many from the famous breeding grounds in New Brunswick and Newfoundland. Others come from the States of New York, Wisconsin and Utah. Without a doubt I consider these as a whole the handsomest series of waders in my collection.

231 I have two handsome sets of Dowitchers from the far Northwest. In coloration they are suggestive of Willet eggs. One set comes from A. J. Schoenebeck, Honory Curator, Milwaukee Academy of Sciences.

232 The eggs of the Long-billed Dowitcher taken on the shores of Behring Sea, Alaska, are pea green

and completely wreathed about the large end with chocolate brown.

235 $\frac{1}{4}$ Purple Sandpiper resembles some Jack Snipe eggs in my collection.

239 The Pectoral Sandpiper or Grass Snipe, how abundantly they migrate in Spring in a northwesterly direction across the continent. Authentic sets are not common. Two beautiful sets taken by W. E. Snyder are before me. Four eggs are olive drab with lengthwise markings of chocolate brown. These eggs are pear shaped. The other set has a creamy background rather heavily blotched with chestnut brown. Both sets were found late in June at Point Barrow.

242 Least Sandpiper. My good friend, E. Arnold spared me the first perfect set which he took at Gaff Topsail, Newfoundland. Their background is buffy and the markings appear in the form of little streaks of reddish purple.

243a Red-backed Sandpiper. Probably the most remarkable record for the nesting of this species is a set of three I have taken by Mr. A. J. Schoenebeck, with the parent bird, on June 11, 1904, in the Green Bay marshes of Wisconsin. I also have a handsome set taken by Mr. Snyder at Point Barrow, besides a very deeply shaded set from Franklin Bay.

246 Semipalmated Sandpiper. These eggs are very dark and thickly marked. I have four taken at Okak, Labrador, and supplied me by Mr. J. D. Scornborger.

247 Western Sandpiper. The eggs of this species are about the same in size as those of the two preceding, but they are brighter in color, the markings being bright red, on ashy gray background. These were taken June 10, 1906, at Franklin Bay.

249 $\frac{1}{4}$ Marbled Godwit from the Boyne marsh in Manitoba. The background and markings are very similar, not a conspicuous egg. The back-

ground is buffy with large pale splashes of lilac and pale brown. These eggs were fresh the third week in May.

(253) Greenshank, four eggs from Lapland. The background is light green, thickly spotted near the large end with purple. An accidental species, like our American Shanks, extremely interesting.

Redshank, also of accidental occurrence on this continent. Eggs creamy with numerous specks of rich reddish brown. Decidedly smaller than the foregoing.

254 Greater Yellow Legs. I have a very handsome set taken by Mr. Arnold in Newfoundland. This species breeds in May, even in Newfoundland. The eggs are long and decidedly pointed. Background buffy with large bold markings of purple and chocolate.

255 Lesser Yellow Legs. These eggs are only about half the size of the Greater Yellow Legs. They are short and quite pointed. Color light greenish ash, marked with light purple. Taken early in June among the muskegs of Alberta.

256 Solitary Sandpiper. These were taken by Evan Thomson who found the preceding set. These eggs have a decided greenish background and are vividly spotted with carmen.

(257) Green Sandpiper. Four eggs from Sweden.

257.1) Wood Sandpiper. These eggs strongly resemble those of the American Solitary Sandpiper, but as the Wood Sandpiper in Lapland where no trees exist, in sections the eggs are deposited on the ground.

258 Willet. I have a handsome series from the coast of Georgia. These specimens are highly polished and among the prettiest of shore birds eggs.

258a Western Willet. Some from Texas and some from Utah. The eggs bear a general resemblance to those of the Eastern Willet.

260 Ruff. Several sets from Lapland. They do not show great variation.

261 Upland Plover. I have taken many fine sets of this wary creature in Illinois, Minnesota and North Dakota. A large series before me exhibits greater variation in size, shape and markings than those of any other shore bird.

262 Buff breasted Sandpiper. A handsome set of three, suggestive in appearance of both the Red Backed and Pectoral Sandpipers. These are from Franklin Bay.

263 Spotted Sandpiper. Quite a series but their eggs are too well known to require description.

264 Long-billed Curlew. A handsome series of our largest shore bird. The eggs vary greatly in shape and color. Some from Utah and others personally collected in Montana.

265 Hudsonian Curlew. Very rare in collections. I have two sets taken by Mr. Joseph Grinnell on the same day, June 14, 1899, at the delta of the Kowak River, Alaska. In both instances the parents were procured. The eggs in one set are unlike any other waders I have ever seen. Their background is a mossy green and the markings are in the form of large blotches of dark gray. Two of the highest prized sets in my cabinet.

(267) Whimbrel. Several selected sets, from Iceland, which in shape and size resemble those of the Hudsonian Curlew.

269 Lapwing. I have several dissimilar clutches. In each instance heavy markings of dark brown are conspicuous.

(269.)Dottrel. A rather rare bird wherever found. These three eggs have a clay colored background heavily marked with dark brown. They are less pointed than most waders.

272 American Golden Plover. Four

eggs taken June 5, 1901, on the barren lands of Alaska. Background light yellow brown. Eggs very heavily marked with purple and vandyke brown.

273 Killdeer. A large series many gathered about Chicago where the birds deposit two sets in a season. They vary considerably as our readers all know.

274 Semipalmated Plover. Two handsome sets of four found late in June on the coast of Laborador. They show very little resemblance to our other American Plover eggs. The markings are deep brown on a creamy background.

(276) Little Ring Plover. These eggs are speckled almost as finely as Night Hawk's. Taken in Prussia on June 5, 1909.

277 Piping Plover. I have personally collected sets from Northern Indiana and North Dakota. They show very little variation. The background is light drab and they are spotted sparingly with little dots of lilac and dark brown.

278 Snowy Plover. Several sets from the California coast. A yellow sandy colored background with markings of dark brown in the form of scrawls or spots.

280 Wilson's Plover. One of the few sets of four I have ever seen, taken on the Florida Coast. These have a clay colored background and are rather evenly spotted with dark brown.

281 Mountain Plover. Not a common egg in collections. Two sets from Colorado. Background ashy drab rather sparsely marked with spots of very dark brown.

283 Turnstone. Three very handsome sets from the vicinity of the Scandanavian Peninsula. These eggs have a very handsome grayish green background marked in a marble like

way with bold blotches of different shades of brown.

283a One set of the Ruddy Turnstone from Franklin Bay laid in June, 1902. Eggs decidedly darker than the European Turnstone. Greenish background almost obscured by dark specks and spots of brown.

284 Black Turnstone. A very rare set taken by Capt. William Morse on Chichagos Island, Alaska, June 27, 1885. These eggs were laid in the bare sand. Background light drab and rather thinly marked with chestnut brown.

286 American Oystercatcher. I have three sets taken by Mr. G. R. Rossignol, Jr., on the Georgia coast. They show little variation. Background almost white, sparsely marked with dark brown and lilac.

286.1 Frazar's Oystercatcher. One set of one from lower California. Background yellowish brown and spots of very dark brown. Eggs similar to those of the European Oystercatcher.

287 $\frac{1}{2}$ Black Oystercatcher taken June 7, 1892, in the Straits of Fuca British Columbia. These eggs have a general resemblance to those of the American Oystercatcher taken in Georgia.

Cowbird Notes.

1. May 14, 1914—Towhee nest with one egg and eight Cowbird eggs.

2. May 15, 1914—Phoebe nest with three eggs and one Cowbird egg.

3. May 16, 1914—Meadowlark nest with five eggs and one Cowbird egg.

4. May 30, 1914—Wood Thrush with four eggs and one Cowbird egg.

5. May 30, 1914—Wood Thrush nest with four eggs and one Cowbird egg.

6. May 30, 1914—Song Sparrow nest with five eggs and one Cowbird egg.

7. June 1, 1914—Catbird nest with two eggs and one Cowbird egg.

8. June 4, 1914—Yellow Warbler

nest with three eggs and one Cowbird egg.

9. June 6, 1914—Bobolink nest, five eggs and one Cowbird egg.

10. June 17, 1914—Wood Thrush nest, four eggs and one Cowbird egg.

11. June 17, 1914—Red-eye Vireo nest with two Cowbird eggs.

12. July 19, 1914—Red-eye Vireo nest with one egg and two Cowbird eggs.

13. May 2, 1915—Phoebe nest with three eggs and two Cowbird eggs.

14. May 2, 1915—Tufted Titmouse nest with seven eggs and one Cowbird egg.

15. May 2, 1915—Tufted Titmouse nest with three eggs and two Cowbird eggs.

16. May 7, 1915—Brown Thrasher nest with three eggs and one Cowbird egg.

17. May 8, 1915—Carolina Chickadee nest with four eggs and one Cowbird egg.

18. May 16, 1915—Cardinal nest with two eggs and two Cowbird eggs.

19. May 22, 1915—Rose-breasted Grosbeak nest with two eggs and two Cowbird eggs.

20. May 23, 1915—Field Sparrow nest with three eggs and one Cowbird egg.

21. June 9, 1915—Indigo Bunting nest with one egg and one Cowbird egg.

22. June 13, 1915—Yellow Warbler nest with four eggs and one Cowbird egg.

23. June 13, 1915—Yellow Warbler nest with three eggs and one Cowbird egg.

24. June 16, 1915—Redstart nest with two eggs and one Cowbird egg.

25. June 17, 1915—Wood Thrush nest with three eggs and one Cowbird egg.

26. June 17, 1915—Redstart nest with one Cowbird egg.

27. June 17, 1915—Yellow Warbler nest with one Cowbird egg.

28. June 21, 1915—Redstart nest with three eggs and one Cowbird egg.

Walter A. Gielitz.

Ravina, Ill.

Bird Boxes.

This is the time of year when arrangements should be made to provide nesting places for the birds that nest in the vicinity of dwellings and which nest in hollow trees, old openings and the like. In preparing nesting places for the Wren no openings should be left in excess of one inch in diameter because if it is, it will be promptly occupied by the miserable English Sparrow.

I have taken a great deal of pleasure in perusing these pages each month, and would not miss it for any amount. There are some very good notes on various bird acts, and I have also used the exchange notes and have found my dealings with the various parties listed there entirely satisfactory. I wish to compliment *The Oologist* on its improvements the last two years.

July 18, 1912.

J. H. Trumbull.

A Freak Set of Cardinals.

I found a set of Cardinal eggs May 1st, that I thought was unusual. One egg was solid dark brown with no markings; the second egg was pure white with several brown spots on large end; the third egg looked more like a brown thrush, speckled all over. The fourth egg was a cowbird.

Ramon Graham.

An Explanation.

The following communication will explain and clear up that which has been more or less of a mystery for some time past.—Editor.

Aug. 11, 1915.

Mr. R. M. Barnes,

Lacon, Ill.

Dear Sir:

Sometime ago when it was necessary for me to give up active work in ornithology on account of my health, I turned over my collection and library to a very dear friend who is none other than my mother, Geo. Priestly. This is my mother's maiden name and

is a signature she uses in many of her communications. I have power of attorney from her as has my father also to use this signature in various advertisements as well as checks and orders if necessary. Furthermore we have not had one complaint in our transactions, but have had many expressions of entire satisfaction.

I hope you understand that this is no fictitious signature and that the above statement is correct.

Yours very sincerely,

P. F. Osburn.

August 11, 1915.

Mr. R. M. Barnes,

Lacon, Ill.

Dear Sir:

I wish to say that the enclosed explanation is true and that through the loss of health only could my son be persuaded by me to give up his ornithology work which he so dearly loved.

I have worked with him on many of his collecting trips and have always been extremely interested in it myself.

I have advertised using his signature, Geo. Priestly, which is my name and have given him power of attorney to reply to the advertisements using the same signature.

I believe you still have an ad running in your magazine and I wish it discontinued as it has run several months. I not only attend to business matters for my son but for my husband also using my own signature.

Trusting the above will clear the inquiry of yours, under date of July 24th. I am,

Most truly yours,

Geo. Priestly.

This advertisement has been dropped from *THE OOLOGIST* and will not appear again while this magazine remains under the present management. We believe our patrons and those dealing with our advertisers are entitled to know exactly who they are dealing with, and will do our utmost to protect them from misapprehension in this respect, regardless of how it may arise.

R. M. Barnes.



Nest of American Crow, Armour, S. D., March 31, 1912

—Photo by Alex Walker

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Nest and Eggs of Barn Swallow

—Photo by J. F. Stierle

Recollections of City Bird-Nesting

Chicago the fourth city in the world is in a region which is the natural breeding zone of about 135 species of birds. Twenty-five years ago Chicago was about one-fourth its present size and much of its present area lay without the corporate limits of today. Nevertheless this brief article deals with a region which, even 25 years ago, was more urban than rural in character.

It was in 1889 that a pair of prairie horned larks displayed a preference for a vacant lot, about a half square in extent, lying within 3 miles of the city hall and there began to build a nest. The boys made use of this lot for their games of ball and I am afraid that the nest building attempt was frustrated more than once before the writer found out about the presence of the birds and sought out their nest. This, when found, contained two somewhat remarkable wreathed eggs.

Still nearer the city center, about the same period, an excavation for the foundation of a building, the construction of which for some reason was delayed, was seized upon as the nesting site of a small colony of bank swallows. Boys like to play about such places and it became quite an industry to dig out the swallows. They soon abandoned the place, as they must have done in any case, as a few days afterward the stone masons began work.

It must have been about 1885 or '86 that excavation was being made for what is known as the North Pond in Lincoln Park. This pit soon attracted a kingfisher, and a friend of mine discovered the nest of this species where, even now, every Spring the bird (or rather one of its kind) is a visitor. That there is no evidence of its nesting, nor indeed that it has

a mate, is due no doubt to the circumstance that since the date given the pit has been filled with the water of this artificial pond and there are no banks suitable to the construction of a kingfisher burrow. However I have been told that the Kingfisher still nests at Jackson Park, at the southern end of the city.

I recall distinctly the excitement among some of us youthful bird students when, engaged in examining into the nests of English sparrows, with which the hollow stubs of a small grove of scrub oaks were occupied, was discovered a screech owl, unexpectedly incubating a set of 7 eggs. This grove adjoined Lincoln Park on the north and was but a short distance from a street car line. It was here that I remember to have seen a brood of young white-breasted nuthatches, now altogether rare in this and contiguous counties.

Among species nesting in Lincoln Park (and it must be borne in mind that the park's southern limit is only two miles from the city hall) I have found the chipping sparrow, wood pewee, pellow warbler, red-eyed vireo, warbling vireo, kingbird, Baltimore oriole, bronzed grackle, catbird and brown thrasher. None of these except the oriole and the grackle may now be found, save rarely, building their nests in their former haunts in the park.

As late as 1906 it was my good fortune to come upon what is perhaps the most unusual instance of a shore bird's nesting in a large city. At that time the work of filling in the lake front opposite the Auditorium Hotel was in progress, and upon this made land, now known as Grant Park, a killdeer had scratched a place amongst the rubbish of broken glass, cinders, broken brick and the like and when discovered was covering the full

complement of four eggs. An ornithologist viewing the sights of Chicago from one of the hundreds of motors passing down Michigan Avenue would have been well entitled to disbelieve anyone who might have offered to show him a Killdeer's nest a few hundred yards east of our world-celebrated thoroughfare.

Among birds whose nests I can easily remember to have found in the immediate vicinity of what is now one of the busiest "up-town" business centers—Wilson Avenue and Broadway—are such species as wood thrush, least flycatcher, redstart, hummingbird, lark sparrow, both the cuckoos, goldfinch, cedar waxwing, chat, downy woodpecker, red-eyed vireo, vesper, field and song sparrows—in fact most of the passerine birds which may be looked for in the breeding season in favorable localities in north-eastern Illinois. This, of course, does not recount anything unusual, as, at the time, the locality named held many tracts of well wooded and brush covered land as well as field and pastures; but the fact that in this same district, less than ten years ago and even in the present season we have had cuckoos, yellow warblers, screech owls, bronze grackles and brown thrashers with us throughout the spring and summer indicates how difficult it is to drive birds from their original haunts if there is left to them the possibility of food and nest cover. It is the writers belief that it is much harder to get them to take up residence in a locality which they have never occupied than it is to keep them in their native cover, even when the encroachments of man have little consideration for their needs.

There's a base-ball park up on the North Side and if I happen occasionally to be one of the thousands assembled to see the national pastime I

am sure to remember that field as it used to be, and for a minute, above the noise of the cheering crowd, I may hear the bold, challenging notes of a pair of crested flycatchers, beginning their housekeeping in an old scrub oak which was cut down long ago.—E. R. Ford.

Rare Additions.

Gerard A. Abbott advises us, "I have added another Warbler nest and three eggs of Belding's Yellowthroat; also three other fine sets, Newfoundland Grosbeak, nest and three; Bicknell's Thrush, nest and three; Clark's Nutcracker, nest and four."

These are indeed rare additions to any collection.

Bird Protection and Cats

I assume that all bird lovers and students know that the food supply of the world is really dependent upon the birds; that we could not exist ten years without the birds.

We also know that there has been an alarming decrease of the insectivorous birds in the past thirty years or more.

The United States government; Audubon and other bird societies, as well as many private individuals have of late been active in the endeavor to bring back bird life to our farms and homes.

One of the most serious menaces to bird life is cats.

The Government experts estimate the value of a live robin at \$5. a year and other birds, some of them, much higher.

They also, from their inquiries throughout the country, find that cats kill an enormous number of birds and estimate that the average cat destroys fifty birds a year.

Personally I can not help liking the little pirates, though I never kept a

cat, and I am not greatly surprised at the ardent defence that many people make for their pets; they declare that their cat is a wonder! would not touch a bird; at the same time they are often vicerious as to the sins of their neighbors' cats.

The remedy it seems to me is, education as to the exact status of the cat, then a law compelling a state license for every cat to be followed by the destruction of all unlicensed cats.

I find that most people whom I meet are willing to pay a small license, say a dollar a year, for a pet cat, in order to get rid of the half wild, half starved cats that abound in all cities and places or resort where they are abandoned by away going transient visitors.

The farmers are the worst hit of all but strangely enough they are generally the ones who defeat any attempt to have cats licensed. When convinced, as they were finally about good roads, they will be the most active for restraining the cat; it seems as though we must educate everybody up to the idea that it is his neighbor's cat that we think vicious.

Of course we know that a license will not change the nature of a cat but I know of several families that keep, or rather harbor upwards of twelve cats; they do not pretend, or merely pretend to feed them; certainly they would not license more than two or three; with penalties for harboring unlicensed cats, there would be a thinning out process.

Educate the people especially the farmers, to the value of birds as against cats and then we can begin to make progress; as it is while we invite birds to stay with us in the peopled places we also invite them to a perilous existence.

Many people are beginning to see

the value of birds; educate them to see the peril of cats to nesting birds around our homes.—(Communicated).

A Rare Runt.

Paul Herrington of Toronto, Canada, reports a runt egg of the Red-Winged Blackbird measuring .77 x .51 inches, taken May 30, 1915.

Some Western Birds—Road-Runner.

Those who have read the late Bradford Torrey's interesting book entitled "Field Days in California" will perhaps recall his story of the Eastern ornithologist who was walking along a Southern California beach with a lady who, while long a resident of the Golden State, was not very familiar with its avifauna. The gentleman expressed a desire to see the Road-runner (*Geococcyx californianus*) on its native heath, whereupon the Native Daughter pointed to a flock of gulls that were following the waves along the sand, and calmly assured him that the bird he sought was before his eyes.

With the exception of our Condor, I know of no other bird that the Easterner paying his first visit to California looks forward to meeting with as much anticipation as he does to the Road-runner. In many ways the bird is unique. He is the only Ground-cuckoo found within the limits governed by the A. O. U. Check-list, his nearest relatives being the Anis of the South and the common Black and Yellow-billed Cuckoos of the East.

No picture of the desert is complete without him. Given a giant cactus, a rattlesnake, a lone cow-puncher and a Road-runner; and your short-story novelist has ample material for an absorbing romance of the plains.

Like the Penguin of the South Atlantic and the Apteryx of New Zealand, the Ground-cuckoo possesses in-

different powers of flight. Through long disuse his wings have become too short to support the weight of his twenty-four inch body, a good half of which consists of tail. On the ground, however, he more than holds his own and glides along the roads and through the sagebrush at a speed exceeding that of a fast-trotting horse. Here the long tail serves both as rudder and brake; a sudden stop is brought about by throwing it upward and forward with a sharp jerk.

The notes of the Chaparral Cock, as our bird is sometimes called, often puzzle the novice. Approach the clump of cactus or mesquite where a nest is concealed and perhaps a peculiar cracking sound will be heard as if someone were breaking rapidly a number of sticks. The sound continues as long as you remain in the vicinity of the nest, but the bird is seldom seen; she remains hidden in the dense brush and produces the mysterious noises by a snapping of the bill. When undisturbed the male will sometimes mount a rock or low bush and utter a harsher and deeper rendering of the familiar "Coo-oo" of the Mourning Dove, a performance that seems to call for much effort upon the part of the bird; the sounds being "pumped" forth like the call-note of the Bittern.

In Southern California the breeding season is from March to July, but in southern Arizona I have found fresh eggs at a much later date. Inhabiting as he does the more arid zones of the West, the Road-runner has but little choice in the selection of a nesting site, being confined to cactus, mesquite and a few low bushes. The nest is rarely above six feet from the ground. I well remember how surprised I was on one occasion to find that the nest some twenty feet up in a willow tree I felt sure belonged to a

Crow was occupied by a Road-runner. The bird left the nest as I reached the foot of the tree, landing almost in my face in her hurried and awkward flight, and to say I was startled would be putting it mildly. Another nest was found this year twelve feet up in a pepper tree growing in a well-populated section of the City of Los Angeles; the birds feeding every morning with the domestic fowls of a neighboring hen-yard.

The nest is well made, smaller than would be suspected from the size of the builder; and is composed of sticks lined with rootlets, grass, cattle-hair, and sometimes bits of snake-skin. In this from four to nine creamy white eggs are laid measuring 1.50 x 1.20 inches. The bird does not lay regularly, one egg being deposited every two or three days, which makes it very difficult to obtain a complete set. I have often found nests containing fresh eggs and nearly-half grown young. How long incubation lasts I have been unable to learn, but I should judge the time required is about three weeks.

The young Road-runner is without exception the most hideous nestling that I know. Covered with a coal-black skin through which the pin-feathers protrude, of ungainly form and as blind at birth as a kitten, he is anything but beautiful. But he is apparently viewed through another light by the parents, at least so one would judge from the solicitude that they show when danger threatens their offspring.

Many stories are told of how the Road-runner kills full-grown rattlesnakes by dropping thorny pieces of cactus on them until they are paralyzed, when the reptiles may then be dispatched at leisure. Such yarns should be taken with the proverbial grain of salt, or rather several grains;

although there is no question but what the bird really does eat small snakes with such delectable morsels as beetles, caterpillars, mice and centipedes as side dishes.

So beneficial a bird is entitled to all protection, but unfortunately it is rapidly becoming scarce in the more settled parts of Southern California because of the large mark it offers to every "sportsman" with a gun, or rather to that class of sportsmen whose idea of a pleasant outing is to kill every living creature in sight with absolutely no regard to its beauty or usefulness. It is probably only a matter of time until the Road-runner will go the way of the Carolina Paroquet and the Passenger Pigeon unless public sentiment is aroused in his behalf.

D. I. Shepardson,
Los Angeles, Cal.

Spotted Gold Finch Eggs.

This season I collected two sets of American Gold Finch eggs of unusual interest; one set of five taken August 5th contained one egg blotched on the large end and of a buff color. The other set of four eggs taken September 7, contains three spotted eggs, which were heavily incubated and one egg being infertile. I would like to know if you or anyone else have ever heard of or seen spotted eggs of the American Gold Finch.

Joseph C. Hall,
Lakewood, O.

Spotted eggs of the Gold Finch are of course not common, but it is not very unusual to discover one or more spotted eggs of this species in a set—
Editor.

Pueblo, Colorado, 1915, Notes.

On May 8 while walking around on the prairie observing what bird life was there, I found a nest of the Burrowing Owl with eleven eggs. They

were about five feet back in a deserted prairie dog burrow, the bound at entrance to burrow was covered with small pieces of dry horse dung as also was the bottom of burrow. The female was on the eggs.

Some boys found a bird nest with six eggs in it and told me about it. From their description I thought it was a House Finch but next evening, June 6, we went out to see it. The female flew off as we came near and I readily saw it was a Lark Bunting, one young had hatched out and on the 9th the six young made a nest full. The nest was on the ground at the foot of a bush about a foot high. They were a common bird in this locality but their nests were difficult to locate.

I was considerably elated over a find I made May 16. I was returning from an afternoon's walk and was near town when a small bird flew from a cactus bush. I was unable to see what it was but the nest held three bluish white eggs. Later in the day Mr. Herman E. Nash and I returned and were successful in getting near enough to the bird on the nest to identify it as the Desert Sparrow. On May 19th the nest was deserted. It had rained that day and the nest and eggs were wet and cold. I failed to see anything more of the birds. As far as I could learn this is the first time this bird has been found nesting in this locality, or even seen.

H. W. Nash

Brother Hess.

Isaac E. Hess of Philo, Illinois has just closed a contract for the third years weekly contribution to the Decatur Illinois Daily Herald to appear in its regular Sunday issue which shows that the publishers as well as the readers are satisfied with Mr. Hess' observations as transcribed on paper and that Brother Hess has

something of interest at all times on the subject of birds. We hope his new found honors will not cause him to neglect his old friend, THE OOLOGIST.

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The Mourning Dove.

H. P. Attwater of Texas contributes to the *Houston Chronicle* of Sunday August 29th a two column and half to the defense of the Mourning Dove under the heading "The passing of the Mourning Dove." We agree with all that Mr. Attwater says on the subject as we could never understand how a man calling himself a sportsman could bring himself to a state of mind permitting him to kill as harmless and beautiful a bird as the Mourning Dove, to say nothing of its well known beneficial quality instead of shorting the season for the killing of Mourning Doves as is suggested. They should at all times be protected by a continuous closed season.

Editor.

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Mr. Darlington's Collection

The unusually fine collection of birds eggs owned by the late E. J. Darlington of Wilmington, Delaware, has become the property of Mr. Edward M. Kenworthy of the same city. Mr. Kenworthy is to be congratulated on acquiring this accumulation of especially desirable specimens.

◆◆◆

Cedar Waxwing's Nests.

The following are some of my finds of Cedar Waxwings at Wasaya Beach, Ontario, 1914-1915.

(1) Nests of weed stems lined with bark 20 feet up on horizontal branch of pine, 4 incubated eggs. 6-22-14.

(2) Nest completed 30 feet on horizontal branch of Norway pine completed. 6-23-14.

(3) Nest 40 feet in Norway pine, one deserted egg. 6-20-14.

(4) Nest of weed stems lined with grass and straw 15 feet up in Maple, three fresh eggs. 6-25-14.

(5) Nest of weeds and bark lined with pine needles and bark 18 feet up on horizontal branch of Norway pine at the extreme end; five incubated eggs. 7-16-14.

(6) Nest 15 feet up in willow crotch, four fully fledged young. 7-23-14.

(7) Nest 12 feet up on horizontal branch of Spruce, three young. 7-25-14.

(8) Nest 20 feet on horizontal branch of Spruce, four young just hatched. 7-25-14.

(9) Nest 8 feet up in Cedar crotch on river bank of weeds, lined with pine needles, four fresh eggs. 7-27-14.

(10) Nest 12 feet up on horizontal branch of pine of weed, stems and bark lined with pine needles, three fresh eggs. 7-28-14.

(11) Nest 8 feet up on horizontal branch of Norway pine, three fresh eggs. 7-28-14.

(12) Nest 10 feet up in bush, five fresh eggs. 7-31-14.

(13) Nest 4 feet up in grapevine tangle, four fresh eggs. 8-2-14.

(14) Nest lined with pine needles 15 feet up in crotch of Cedar, four eggs advanced. 7-6-15.

(15) Nest lined with pine needles 12 feet up on horizontal branch of pine, four fresh eggs. 7-5-15.

(16) Nest 10 feet up on horizontal branch of Norway pine, lined with the needles, five fresh eggs. 7-5-14.

(17) Nest lined with pine needles 20 feet up on horizontal branch of Norway pine, five fresh eggs. 7-14-15.

(18) Nest lined with pine needles 5 feet up in willow, four fresh eggs. 7-29-15.

(19) Nest 10 feet up in Hemlock, lined with grass, five fresh eggs. 7-10-15. This nest and eggs were taken, the birds rebuilding in the same spot hatched two young which were fully fledged. 8-13-15.



Nest and Eggs of Scarlet Tanager
—Photo by Thos. D. Burleigh



Nest and Eggs of Indigo Bunting
Haemarville, Pa., May 25, 1915
—Photo by Thos. D. Burleigh

(20) Nest 5 feet up in willow, lined with pine needles, four fresh eggs. 7-29-15.

(21) Nest 10 feet up in bush, lined with pine needles, four fresh eggs. 7-29-15.

(22) Nest 6 feet in willow, three advanced eggs, nest knocked down by heavy rain. 8-2-15.

Paul Harrington.

Strange Malady.

In the past year I have found about my home four or five Yellow Billed Cuckoos some of them dead but two alive. One of these I found this afternoon. The bird had no broken bones and nothing seemed wrong except the wings drooped a little. It could use its feet well for it ran as well as ever when I caught it. Could you please tell me what is wrong with these birds?

R. C. Martin, Jr.

Albemarle, La.

Rightful Use of Big Game Heritage Urged.

Henry W. Henshaw, Chief of U. S. Biological Survey Points Out Value of Birds.

With the beginning of the hunting season, the variety and plenty of the North American huntsman's domain is indicated in a communication to the National Geographic society from Henry W. Henshaw, chief of the United States Biological survey, which tells of "American Game Birds." Mr. Henshaw enumerates more than 100 kinds of game birds common to this country's preserves, among which are 37 kinds of duck, eight kinds of goose, eight kinds of quail, and five kinds of grouse. While America's preserves are distinguished among the hunting fiends of the world for their wealth of game, the writer shows that they are hunted with dangerous thoroughness. He says;

"America has always been a paradise for sportsmen, but of late years the number of those whose chief relaxation is the pursuit of game has greatly increased, and today there are probably not far from five millions who are interested in the pursuit of game. What this army of five million hunters means to the large and small game of America can better be imagined than described. Modern guns and ammunition are of the very best, and they are sold at prices so low as to be within the reach of all. Added to these very efficient weapons for killing small game, are innumerable devices for killing waterfowl, as sneak-boats, punt-guns, swivel-guns, sail-boats, steam launches, night floating, night lighting and others."

The varieties of American game duck given by Mr. Henshaw are baldpate, Barrow's golden-eye, black buff-head, king, Pacific, spectacled and Steller's eider, fulvous tree-duck, mallard, merganser, red-head, pintail, scaup, scoter, canvas-back, shoveller, and teal. Of the canvas-back he says:

"The canvas-back, perhaps the most famous of American water fowl, has purchased its fame at a price. So highly is it prized by the epicure that today he who can afford to dine on canvas-back sets the mark of luxurious living. Not that the canvas-back differs essentially from other ducks, but its exceptional flavor is due to the fact that its favorite food is 'wild celery', a long ribbon like grass which grows in shallow ponds and estuaries. As the plant roots several feet under the surface, only the diving ducks can secure it and the plebian kinds have to be content with such floating fragments as they can pick up or can steal from their more aristocratic relatives. In Oregon and Washington, the canvas-back, lives much upon wapato, a bulb-like root former-

ly a staple article of food among many Indian tribes, and their exceptional flavor is said to be little, if any, inferior to that of the celery-fed canvas-back of the east. Prized alike by the sportsman and by spicure the ranks of the canvas-back have been depleted by the relentless pursuit to which it has been subjected. However, the greater number of these ducks breed far to the northward where they are safe, and under present laws their number should increase to something like their former abundance."

Despite this country's present vast wealth in game birds, according to the writer, they would soon be shot away but for proper protection. As it is, he continues, the number of game birds today are quite insignificant when compared to the abundance of former days. Destruction of former breeding places by drainage and, more especially, the relentless pursuit with firearms, are the causes assigned for the falling off of supply. Mr. Henshaw writes:

"The statements of the early chroniclers regarding the multitudes of ducks, plover, and wild pigeons almost defy belief. When, in the records of the first part of the last century, one reads of clouds of pigeons that required three days to pass a given point in a continuous moving stream, and again of flocks estimated to contain more than 2,000,000,000 birds, credulity is taxed to the limit. Yet not only one such flock was observed, but they were of periodic occurrence during many years of our early history, and the accounts of them are too well attested to be doubted. As throwing a curious sidelight on the abundance of wild fowl and the hardships to which the slaves of the period were subjected, I quote from Grinnel, who states that "in early

days slave owners, who hired out their slaves, stipulated in the contract that the canvas-back ducks would not be fed to them more than twice each week."

A high money value is placed on our game resources. Mr. Henshaw states that Oregon values her game resources, consisting largely of game birds, at \$5,000,000 a year, while California and Maine each claim their game to be worth \$20,000,000 a year, which suggests the enormous aggregate value of the country's game. Mr. Henshaw concludes his communication with an expression of the belief that the government and the people of the country should do all in their power to protect and to bring about a rightful use this rich heritage.

W. A. Strong.

Edward Reinecke.

A letter of September 18th brings the sad news of the death of Edward Reinecke, of Buffalo, New York, a son of Ottomar Reinecke, who is known to all bird students from coast to coast, which occurred on the first of August at the end of a long sickness.

The father says: "In all my scientific researches he was my faithful companion and help. My collection was largely accumulated by his help. I shall miss him the balance of my existence."

While the Editor never had the pleasure of meeting Mr. Edward Reinecke, we have no doubt of his scientific and painstaking characteristics, as many specimens in our collection bear data showing them to have been taken by Edward Reinecke, and they are all absolutely A-1.

We extend our sympathy to our friend, Ottomar Reinecke, in his hour of trouble.

E. J. Darlington.

George B. Bonners, than whom there is no better oologist in the country, has this to say of Mr. Darlington in his letter under date of September 18th:

"I am glad you spoke so well of Darlington. I knew him well, and was to have paid him a visit the day he died. I see Sharples has said nice things about him, and I know of a host of others who think the same of him. We Old Oologists are slowly but surely going to the Happy Hunting Grounds. I think I can class myself among the old ones, as I made a trip to Texas after Golden-checked Warblers and Black-capped Vireos in 1884, and have been collecting ever since."

Odd Nesting of the American Merganser.

During the spring months of the current year (1915) I was attached to the U. S. S. "Tuscarora" doing general cruising duty on Lakes Michigan and Superior. Much of our work took us into the small ports on the upper shore of Wisconsin, and it was on June 6th that we stood in and dropped the hook in the little haven of refuse called Hailey's Harbor at the extreme end of Wisconsin near the entrance to Green Bay, a bay with a town in the bight of the same name, and consisting of a mere cluster of fishing shacks and a U. S. Coast Guard Station. No railroads of any kind traverse this country, so it is practically uninhabited and is perhaps one of the wildest portions of the state.

As we steamed into the harbor the wooded shores and occasional sandy bars of the neighboring islands at the entrance appealed to me from an ornithological standpoint, especially so as I saw the gulls and terns hovering about the beaches and here and there a duck winging his way into

the trees. In short things looked good for breeding places for all of the above and I made up my mind that a little excursion ashore here might prove quite interesting. So a few hours before sundown I, together with a few men who wished to try their hand at fishing while I was ashore, rowed in and landed on the most easterly of the islands, a small stretch of land which was more conspicuous than the others of the group due to its having on its outmost point an old tower of what was once a light-house. It was a quaint old tower and curiosity at once drew me in that direction. It was situated in a grassy clearing about a hundred feet from shore and I soon walked over and peered thru the single doorway of the tower.

Here the unexpected happened. No sooner was my body in the doorway than a large bird darted from the opposite side of the brickwork and half running and half flying struck me "amidships" in its wild efforts to make the open. It was with some difficulty that I was able to secure a hold of Mrs. Merganser (for so it proved to be) but I finally accomplished this and then proceeded with my prize over the door sill to discover the cause of this attempted exit on the part of the duck. It was easily found. Diametrically opposite the doorway and spaced about three feet apart were two wonderfully soft nests of the American Merganser, the eggs they contained being almost hid by the gray and white down of which the nests were entirely composed. Each nest was placed in a depression, perhaps five inches deep, scraped out of the soft dirt of the light-house floor and were about fourteen inches across. One nest contained ten eggs and the other seventeen eggs, and as the latter were quite warm they un-



Nest and Eggs of Texas Nighthawk, Ventura, California
—Photo by H. C. Burt

doubtedly belonged to the captured female. The former were fresh and these I took, but the latter were far gone in incubation and I considered it both useless and a waste of time to attempt to save them so they were allowed to remain. The captured duck was taken out into the open, and after completely satisfying myself as to its identity I threw her high into the air, and watched her shoot with great rapidity thru the trees and over the water.

This is the first time that I have run across any nests of this species, but I had always supposed that they nested only in hollow trees and thus was more than surprised to find them located in such a site. I have no doubt but that this place had been used by these birds, or others of the species, for many years, for here both bird and eggs were admirably protected from wind and rain and in addition were quite remote from the depredations of man.

During my short time on the island I was able to find no other birds breeding altho several species were seen in plenty, but I returned to the ship after darkness set in well satisfied with my excursion ashore.

Lieut. I. T. VanKammen.

The Baltimore Oriole

A pair of Orioles built their nest in a maple tree on our street. It was about thirty feet from a house where children were playing most of the day, and about fourteen feet from the street where wagons and autos were passing every few minutes, and yet they hatched their eggs and fed their young, and did not seem to mind, or care anything about what was going on around them. I have this nest and it is a fine specimen of Oriole work.

I am a cripple, have not walked for over twelve years, but as our

streets are provided with cement walks, I am able to enjoy myself, in my wheel chair watching the birds and squirrels.

I notice that the Oriole does not sing any more after their eggs are hatched, but the young can be heard every time the old birds feed them.

R. B. K., Columbus, Wis.

The Birds of July.

With the approach of July and the hot days of summer the bird life becomes less and less evident than in the spring. The birds are nesting; separating from the large flocks of the spring and fall they go off in pairs, and are seldom heard except in the early morning.

Toward the latter part of July, young birds, just beginning to fly, put in their appearance. They fly from branch to branch, accompanied by the parent birds, and, may be seen thus occupied at any hour of the day.

It was such a scene which drew my attention one morning not long ago. Two young blue jays, together with the old birds, were sitting on a branch of a shrub which grew on a bluff overhanging the river. As I noticed them my attention was drawn by a movement in the grass at the foot of the tree. A large snake had arrived on the scene, unknown to the birds, and was watching them intently. Whatever his intentions may have been I do not know, but at that moment one of the old birds observed him. He gave the scream of warning characteristic of a jay, and rose to the top of the trees, where he perched himself and emitted cry after cry. The other parent bird flew down and circled the snake, attempting to beat him with the wings. The young birds remained perched on the limb. They were evidently not well prepared to make their escape. Then the queer

thing happened. Jays began to arrive, attracted by the cries of the old bird, until five were on the scene. The snake refused to move until the fifth came, then, evidently frightened by the number of his opponents he glided away.

Fred L. Fitzpatrick
Bethany, Neb.

Mocking Birds Eggs.

The eggs of the mocking bird seem to vary very greatly in this county (Harrison Co., Texas). During the last two years I have taken eight sets of these eggs, six of these had four eggs each, one three, and one five. Most of these sets vary in color and size. The set of three were very light and unusually large, measuring 1.01 x .80, 1.00 x .80, 1.03 x .82.

Another unusual set was a set of four that were very small and heavily marked, they measure .88 x .75, .87 x .64, .87 x .65, and .79 x .60.

A. D. M.

A Runt.

Last spring I took a set of chipping sparrow eggs, three of these eggs were the normal size and one was a decided runt. This set measured, .87 x .51, .86 x .50, .86 x .48, .54 x .52.

These eggs as a rule have very little variation either in size or color. Out of about a hundred nests of these birds that I have examined in the last three years this is the first runt that I have found.

A. D. M.

. Copy.

We are, as usual, out of copy. Our giving our readers sixteen and twenty-four pages each month, instead of the twelve pages promised, has exhausted the supply, and it is up to you, Mr. Subscriber to furnish some more, for we are very sure you do not wish to see *The Oologist* deteriorate.— The Editor.

Proposed Revision of the By-Laws of The American Ornithologists Union.

I wish to address all working ornithologists and oologists in the United States and Canada,—through the columns of *THE OOLOGIST*. For a number of years, there have been many of the working ornithologists and oologists who have not been satisfied with the present by-laws of the American Ornithologists Union. This dissatisfaction has been shared alike by "Fellows", "Members" and "Associates" of the Union. We have seen in a mild form from time to time this dissatisfaction expressed in the columns of the "Auk," only to be sidetracked and dropped with but small notice and courtesy.

I have just received the annual circular letter from the O. O. U., stating my dues for the ensuing year are now due, and asking for new members, etc., etc. Each year as I look over this communication I ask myself "Shall I continue in the A. O. U., and what can I offer a new member as an inducement to have him join the 'Union'?" Carefully looking through the pages of the by-laws I can find no inducement to offer him, nor do I see any inducement offered me to continue in the Association after this year, should the by-laws not be changed. I have no quarrel with my officer or class of member of the A. O. U., my quarrel is with the by-laws. We all know that the A. O. U. was only a continuation of the "Nuttall Club" and when re-organized and incorporated in 1888, nearly all active members at that time could be, and were, embraced in the class of "Fellows" and "Members". Active members since that time have increased, so much so that now many of the most active workers are in the Associate class. The by-laws have remained the same, not keeping pace with the changed conditions. How

many of the different class of members of the A. O. U. have ever seen a copy of the by-laws? The copy that I now have before me, I secured in March, 1914, through the courtesy of the treasurer. In reply to my query as to who was entitled to a copy of the by-laws, the secretary informed me on October 28, 1914, "That every member and associate of the A. O. U. is entitled to a copy of the by-laws, but it is not customary to send a copy unless requested to do so." I believe if every new member could see the by-laws before joining, that he would think them so narrow, and the inducements offered therein so small, that he would refrain from joining the Union. I trust every class of members will at once send to the secretary, and secure a copy of the by-laws, and see for themselves if the following assertions are correct or not.

About eight per cent of the membership are "Members," paying four dollars yearly dues. They have no vote or voice in the business matters of the Union.

About ninety per cent are "Associate" members, paying three dollars yearly dues. They have no vote or voice in the business affairs of the Union.

The business meetings are of the "Star Chamber" kind, and are not open to the main supporters of the Association.

There is no given method for the advancement of members from one grade to that of a higher grade, nor is there any given standard for a member to measure up to; before he can be advanced to a higher grade. This is one of the weakest points in the by-laws. Judging from the membership list in the April, 1914, "Auk", we gather the following has nothing to do with one's chances for advancement:

Length of time as a member.

Field work in any of the active lines.
Attending annual meetings of the A.O.U.

Published articles in the "Auk."

Emassing a collection of scientific specimens, and a library or ornithology, either through purchase or by personal work.

What qualifications then must a person have, to attain a higher grade in the Union? Are the majority of the "Fellows" in a position to know just who is doing active work, or eligible to advancement? What member wishes to make out his own application for nomination to a higher class, and have it signed by three "Fellows" as required by Section 4, Article 4, of the by-laws? What chance is there for a member to become a "Fellow" except through dead men's shoes, and who likes to wait for such advancement? A "Fellow" can only be retired by his own desire, Article 1, Section 3. No one can blame any of the "Fellows" for desiring to remain in that class, even though some may take no active part in ornithology, and its branches today. The present grades in the membership of the Union, are unsatisfactory and undemocratic. Acting in conjunction with other members of the A. O. U., I forwarded proposed changes in the A. O. U. by-laws, to the last meeting of the Union. I had the support and endorsement of two "Fellows," as required by Article 8. I have not been informed in an official way by any officer of the Union, what action if any, was taken, nor have we seen any mention of the subject in the columns of the official organ, the "Auk."

The A. O. U. was supposed to be an organization for the "Advancement of its members in ornithological science." A large percentage have been taken into the Union merely for the payment of their \$3.00 dues, and not with any

idea of strengthening the Club scientifically. There are other societies where this class of members can do more good than in the A.O.U. Some of the most active workers today in the various ornithological branches are not, and will not, become members of the A.O.U. on account of the class distinction, and star chamber methods of conducting the business of the Union. Let us have the needed changes in the by-laws, and let all class of members express their views and desires through the columns of the several ornithological journals. Let us hear from the "Fellows" in a broad-minded way, just how much they have the interests of the A.O.U. at heart. Above all, let us have a democratic organization, equal rights to all, special privileges to none. If, after a fair fight, we cannot get our desired changes, let those who are dissatisfied with the present by-laws and way of management, withdraw from the A. O.U., and give their support to some organization who will offer us the cooperation of their organization.

Harold H. Bailey.

Newport News, Virginia,

Birds of Palestine.

Cormorant; Sea of Galilee, Jordan River and Coast.

Pelican; Spends winter in Palestine, summer in Russia.

Pelican; Coast.

Avocet;

Plover; Jaffa.

Sandpiper; Solomans pools.

Dunlin;

Common Stork; Commonly distributed over Palestine.

Black Stork, Same as above, build in fir trees.

Ibis;

Crane;

Crane; Beeschuba in winter.

White Heron, Jordan Valley.

Blue Heron, Jordan Valley.

Blue Heron, Along Jordan River.

Brown Heron, Along Jordan River.

Buffed backed Heron.

Bittern.

Least Bittern, Bough at Jerusalem.

Water Rail.

Ducks, many varieties.

Geese, same as Ducks.

White Swan, found on the lakes and rivers in winter.

Gray Swan, Found on Lakes and rivers in winter.

Grouse, Desert, Jordan Valley.

Partridge.

Rock Partridge, found everywhere in Palestine.

Quail, Found during migration on shore of Red and Dead Seas.

Griffin Vulture, Palestine and Egypt.
Great Vulture.

Egyptan Vulture; Palestine in the winter.

Kestrel, All southern Palestine.

Kite, common in winter.

Harries Hawk, Jericho.

Hawk.

Large red Buzzard, Palestine.

Buzzard.

Glede.

Eagle, Yebua.

Short toed Eagle.

Osprey, Palestine.

Owl.

Great Owl, Jericho.

Little Owl, Bethlehem.

Desert Owl.

Screech Owl, Jericho.

Black Bird, Palestine.

Grackle, Jordan Valley.

Starling, Jericho.

Dove.

Pigeon, Common and migratory.

Wood Pigeon.

Rock Pigeon.

Turtle Dove.

Palm Dove.

Ring Dove.

Hoopoe, Palestine in summer.

Crow.
 Rook.
 Jackdaws.
 Magpie.
 Blue Jay, Palestine, growing scarce.
 Cuckoo, Jordon Valley.
 Cuckoo, Summer in Palestine.
 Shrike, Jericho.
 Shrike, Jordan Valley.
 King-fisher, Jericho.
 Night Hawk.
 Jar.
 Sparrow, Jericho.
 Swallow, Jordan Valley.
 Common Swallow.
 Swift, Jordan Valley.
 Lark.
 Black Cap, Jericho.
 Great Tit.
 Bee-eaters.
 Sun-bird, Jordan Valley.
 Corn Bunting.
 Gold Finch.
 Chat.
 Nuthatch.
 Red start.
 Robin.
 Thrush.
 Wag-tail.
 Peacock.
 Ostrich.

This list is probably incomplete but interesting.

Geo. W. H. Vos Burgh.

The Least Tern at Philadelphia, Pa.

The occurrence of the Least Tern (*Sterna antillarum*) upon the Delaware River—particularly in the vicinity of Philadelphia—is of doubtful authenticity, according to a prominent local ornithologist, who says there is "no evidence that it was anything but an extremely rare straggler" in the past, when the species was a common summer resident on the New Jersey

coast, and it is the accepted belief of local ornithologists that it has never been taken in this region during recent years.

While crossing the Delaware River, on September 25, 1910, in a power boat with my father, three brothers and several friends, and towing two heavily laden bateaux with a camping outfit, when just opposite Bridesburg (which is six miles above Philadelphia) on the Pennsylvania shore, we almost ran down a crippled(?) Least Tern sitting on the water. We gaslined by within four or five yards of the bird as it sat serenely upon the surface, but on account of our heavy tow were unable to pursue and try to capture the bird, as we would like to have done. The bird was not seen until it was too late to try to run straight for it and we were unable to come back and try to capture it. The Tern was plainly seen, as it was clear and sunny and there is no doubt about its identity. It was an adult and evinced no concern at our close and noisy proximity, nor did the waves from the boat alarm it and it mounted the small swells without any fear. It didn't even manifest any fear at our yells or hostile demonstrations from which I infer that it was wounded and unable to fly or else remarkably tame.

Why should the occurrence of the Least Tern be regarded of such extreme doubtful rarity upon the middle Delaware River by "closet naturalists," when there are breeding colonies of these birds on the eastern shores of Maryland and Virginia and undoubtedly nearer? After the breeding season, like the Common and Black Terns, in my experience the Least Tern wanders about and migrates north or westward of its habitat in late summer, nowadays, just as they did, in all probability in the past.

Richard F. Miller.



Nest and Eggs of Red-shouldered Hawk

—Photo by Chas. A. Procter



Nest and Eggs of Black-capped Chickadee in dead stub, 2 feet
from the ground

—Photo by Thos. H. Jackson

THE OÖLOGIST.

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Cliff on which poor Billie Crispin died, known as High Rock, near Kintnersville, Pa. It is 300 feet high

California Fish and Game.

California Fish and Game for October, 1915, contains much interesting reading for the bird student, a reference to some of which may be of interest.

The disease which is carrying off many thousands of ducks, waders, etc., around Great Salt Lake, Utah, is reported to have appeared at Tulare Lake, California. This is a most remarkable disease, which seems to baffle all scientists. The Biological Survey through its experts being entirely unable to ascertain either the cause, or suggest a prevention. It is certainly destroying many, many thousands of birds.

H. R. Wahmsley is quoted as saying that he had not met a single sportsman or farmer in Oklahoma who knew a Mocking bird from a Wren. That the hunters there shot at all seasons of the year and killed everything with feathers and fur. That he saw a man there shooting Cardinals and feeding them to his dogs! (The man ought to have been shot.—Editor) That the farmers boasted of killing all kinds of birds, including the Quail, at all seasons. This is a disgrace to the state.

H. C. Bryant reports a colony of the American Egret as breeding in Stanislaus County, California. It is to be hoped that they will be protected and increased.

An interesting reference, accompanied by a half tone, is made to the hybrid geese reared at Redwood City, by Chase Littlejohn, being a cross between the Chinese Horned Goose and the Canada Goose. The picture shows a number of oddly colored hybrids; however, the head and neck and general carriage is typically *Canadensis*. This is especially interesting to the writer because of our own experience in raising Canada Geese; and also

from the fact of our having so many splendid eggs bearing the data of Mr. Littlejohn taken during his Alaskan sojourns. The remarkable statement is made in this notice that "the wild Canada goose has never been successfully bred in California." All the more wonderful because of the fact that the Canada goose breeds in confinement and takes to semi-domesticity better than any other member of the goose family.

It is also stated that "the State Game Warden, General Speaks (of Ohio) however, succeeded in having a bill introduced in the Legislature and it was signed by the Governor" providing for a bounty on Hawks; among others, the "Chicken Hawk." This is indeed a startling bit of information. Everybody supposed that an enlightened state like Ohio produced men with sense enough to know that the destructions of hawks would be an injury to the agricultural interests of the state. The Cooper Hawk and the Sharp-shinned Hawk are the only Hawks in Ohio that should be killed. That state ought to superannuate or retire "General" Speaks and see that he is superceded with a man having more sense, and then elect a Legislature having more brains in the aggregate, and then repeal this law, as did the State of Pennsylvania, before it is too late.

Louisiana is reported as removing protection from the Turkey Buzzard on the ground that the Turkey Buzzard aids in disseminating the diseases of cattle and hogs;—a more erroneous objection it would be hardly possible to make. The Conservation Commission should reverse its decision in this matter, and all possible protection should be accorded this useful bird.

It is strange indeed that those most interested should endorse and indulge in the destruction of their best friends

and pay no attention to their ever present enemies along this line. Tame Pigeons and particularly English Sparrows, flying as they do in droves from one infected pen to another, and from one farm to another carry a thousand per cent. more disease, both hog cholera and foot and mouth disease than all the Buzzards put together. To this fact the farmer should wake up and should protect his friend the Buzzard and destroy his enemy, the English Sparrow, and do away with the unnecessary and dirty pigeons about his place. By so doing, the average agriculturist engaged in stock raising will increase his bank account, add to his self respect and turn his gun into a beneficial instead of a destructive instrument.—R. M. B.

Arkansas Kingbird.

(*Tyrannus verticalis*)

This abundant Flycatcher is one of the most interesting of the family. In South Dakota, they are even more numerous than the common Kingbird, and nearly every tree along the roadside contains a nest of one or the other. I have found ten nests of the Western Kingbird in a small open grove of about two acres.

Cottonwood trees in small groves or by the roadsides, and willows around the marshy places are ideal nesting sites, but Box Elders are often selected also. They often choose some very unusual nesting places also. I have several records of their nesting in windmills. The nests being placed either in the woodwork or in the gearing at the top. In one case both eastern and Arkansas Kingbird had nests in the same mill.

A typical nest is composed of weeds, twine, rags, and twigs, thickly lined with hair, feathers and wool. Four or five eggs are the usual number, but sets of three are common.

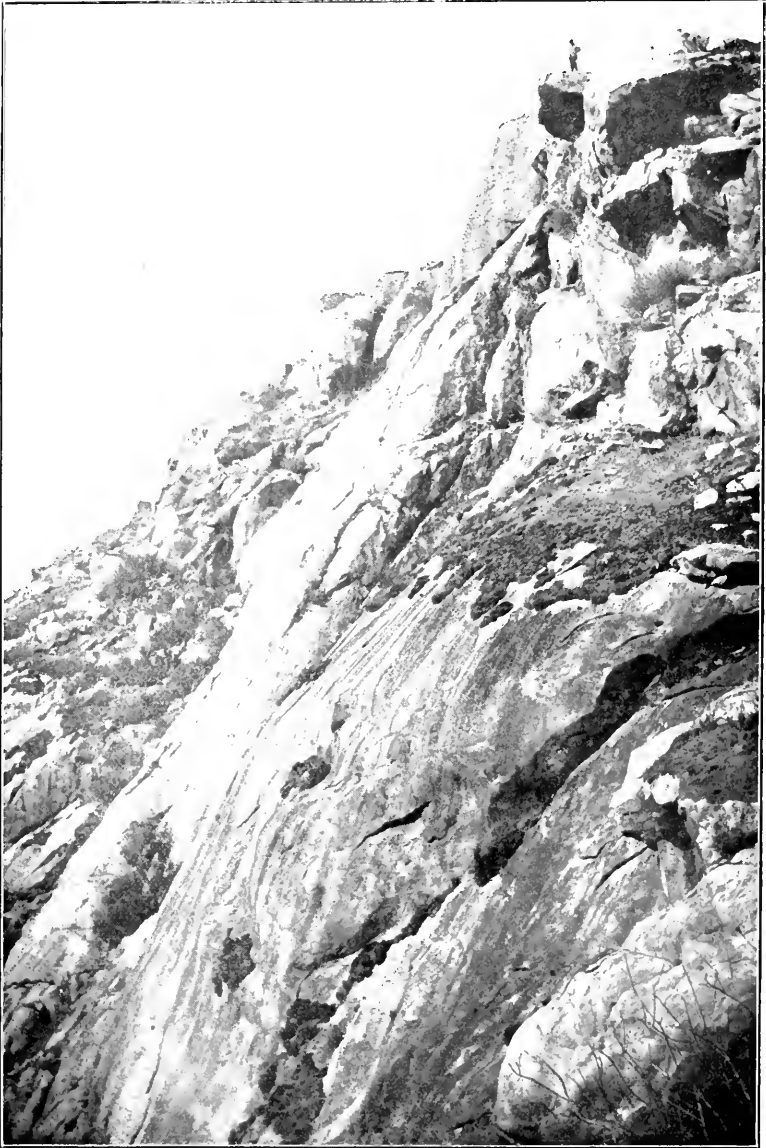
The first migrants arrived May 7, 1910 and May 6, 1911.

First nesting dates are June 10, 1909, June 4, 1910, and June 4, 1911.

Alex Walker.

The Bald Eagle.

The September-October, 1915 number of Bird Lore, contains the National Association of Audubon Societies Leaflet No. 82, on the "Bald Eagle", by T. Gilbert Pearson. He leaves the reader or student with the impression that the Bald Eagle while being an expert at catching waterfowl, cannot catch the members of the Grebe family, by suggesting a Pied-billed Grebe found by him on an Eagle's nest on one occasion, "had been picked up dead." I wish to correct this impression if possible. On February 16, 1913, the late William B. Crippen and I took from a nest of the Bald Eagles, (*Haliaeetus leucocephalus*), in York County, Virginia, two Pied-billed Grebes and a part of a Lesser Scaup Duck. The nest was in a live pine tree in a swamp, about 85 feet up and also contained two young Eagles, about four and five days old. One Grebe had been dead about two or three hours and the other had just been caught and brought to the nest the last trip, before we drove the parent bird off, that was hovering the young eaglets. The latter bird was still warm and had fresh blood on the head and in the beak and while the weather was very cold that morning, it had not coagulated. An examination of both birds shows only two small nail marks on each side of the Grebe's head, which had caused death. Both Grebes were plucked as clean as any person could pluck a water fowl without singeing the small hair-like feathers below the "down," being similar to those on the back of a man's hand. I have never seen a better piece of water fowl plucking by any



Duck Hawk Cliff

—Photo by J. B. Dixon

person; and how the Eagles held them and plucked them even to the down, without breaking the skin with beak or claws is more than I can understand, for there was not a blemish on either bird. We resented at the time, their not having left us two eatible ducks instead of Grebes, and left them at the foot of the tree and walked off with the two young eaglets.

The above incident, together with the fact that I have seen them catch a Grebe, leads me to correct Mr. Pearson's erroneous impression.

Harold H. Bailey.

Some Western Birds.

Barewer's Blackbird.

In the City of Los Angeles Brewer's Blackbird (*Euphagus cyanocephalus cyanocephalus*) is found in larger numbers than any other species with the possible exception of the Linnet or House Finch (*Carpodacus mexicanus frontalis*); the latter bird taken the place here, as far as numbers are concerned, of the common English Sparrow of the East. *Cyanocephalus* is a bird of great adaptability, and civilization has no terrors for him. On the contrary he flourishes under its regime, and his numbers seem to increase in direct ratio with the growth of human population. Of course all of his tribe are not urban dwellers, many inhabit the unsettled parts of the West; but he is quick to learn the advantages gained by association with man.

In Southern California our Blackbird is resident throughout the year. During the periods just before and after the breeding season the birds gather in large flocks numbering sometimes many hundreds and resort to the grain fields to feed, or gravely walk about over the lawns of the city parks and private residences.

The bird is quite tame, making his

home in your dooryard and if unmo-
lestled going about his business with
little or no attention to the passerby.

This Blackbird has the neat trim
appearance common to all the mem-
bers of his family. The males meas-
ure from eight and one-half to nine
and three-quarters inches in length;
the plumage is glossy greenish-black
with a purplish iridescence about the
head and neck. The females are
somewhat smaller, while their plum-
age is more brownish and of not so
glossy a texture. The iris of the eye
is a clear lemon yellow.

Water is always to be found in the
immediate environs of our black
friend's home, for to him a daily bath
is one of the necessities of life. Every
morning when the sun is well up the
bird visits his bathing pool, whether it
be a puddle in the gutter, a horse-
trough in the barnyard, or the sandy
shallows of some stream; and there
indulges in much splashing of water,
after which he vigorously shakes him-
self after the manner of a dog and
perches in some warm spot to dry. As
a result of this salutary habit his
plumage is always bright and shining,
and an example is set that might well
be followed by a great many members
of the genus homo.

While not a songster of exceptional
merit this Blackbird is by no means
without a voice. I have often seen
the male bring a stick to his uncom-
pleted nest, drop it at his mate's feet,
and give vent to a subdued clucking
that was almost a song. The com-
monest note is an inquisitive "chack"
uttered by both male and female.
When their nest is threatened both
birds break forth into an excited
"chack-chack-chack-chee-e-e." the last
note being a clear prolonged whistle.
A dog or cat appearing in the vicinity
of the nestlings is attacked furiously
and usually forced to ignominiously

retreat with the loss of more or less fur. The birds are equally quick to assail a human intruder. I have had them dart down so close when my back was turned as to knock my hat off. Being of an excitable temperament he turns to defend his neighbor's home as quickly as his own, and every black feather in the community is aquiver with rage until the interloper disappears.

Grasshoppers, small beetles, grub-worms, and seeds are the mainstays of the Blackbird's diet. Fruits are partaken of in the season, as are also grains of various kinds. The rancher very naturally resents the raids made upon his wheat-fields and resorts to the shot-gun method of retaliation although the bird is protected by the State Game-Laws. Hence the "four-and-twenty blackbirds baked in a pie" of nursery fame frequently constitutes the piece-de-resistance of the farmer's supper but the birds seem to increase nevertheless. I might add from my own experience the aforesaid pie upholds its ancient reputation of being a "dainty dish."

The nesting season lasts here from about the middle of March to late in May. The greater part of the egg-laying is done in April. I have read somewhere that the average height of the nest is "usually under ten feet from the ground." This may be true in some localities as at Lake Tahoe where the rotting piles of a deserted wharf are used, but in Los Angeles County the average is nearer twenty feet; and some nests are found at three times the average. Cypress, fir, and pine trees are preferred when available. Peppers, oaks, and blugums are resorted to extensively; while in the more arid regions low willows and even sage-bushes are used.

The nests are bulky and exceeding-

ly well-made. One that I have before me exhibits the following measurements outside diameter seven inches, inside 4 inches; outside depth five inches, inside four inches. This nest was placed on a large horizontal limb of a pine tree, wedged between two small upright branches. The body of the nest is composed of pine twigs and needles interwoven with string and rags, and cemented with mud and manure. The deep cup is lined with felted hair; the whole structure being very compact and well-proportioned.

From four to six in number, the eggs show more variation than those of any other bird, not only in coloring but in shape and size. Some are nearly round, others are greatly elongated, the average size being about 1.00 x .75 inches. The ground color ranges from light greenish-gray to dark brown. The surface markings of chocolate brown, lavender and black are sometimes confined to light pen-scratchings lengthwise of the egg, and in other cases appear as heavy blotches that quite obscure the ground color. The variations are endless, every set seems to present a different type.

But one brood is reared in a season. Incubation lasts two weeks, the young leaving the nest at the end of three more, and five weeks of excitement is about all that our Blackbird can stand. In spite of his irritable disposition he is a bird well worth knowing.

D. I. Shepardson.

Los Angeles, Cal.

Phalaropus lobatus at Nigger Slough.

A large flock of Northern Phalarope (*Phalaropus lobatus*) was observed with intense interest on October 12, 1915, at 8 a. m., feeding at the edge of North Nigger Slough in Los Angeles County, Southern California. We



Nest and Eggs of Duck Hawk in situ

Photo by J. B. Dixon

counted twenty-two all told. The writer took a male species in fall plumage. This is a late record. Mr. H. S. Swarth has taken specimens in this locality as late as June 19. C. B. Sinton took two specimens from a large flock at Santa Cruz Island, October 21, 1908. The fall migration is late July to October. Spring migration, late April to June.

The *Phalaropus lobatus* breeds in the northern part of the northern hemisphere. In America they breed in Alaska to Labrador and Greenland. They go South in winter to Guatemala.

There is not among all our waders a more dainty, exquisitely colored bird than the Northern Phalarope in its fall and winter plumage. "Face, line over one eye and under parts white; line under eye, and back of head, dusky; under parts mainly gray."

Alfred Cookman.

Road Runner.

The Road Runner is what I would call a beautiful bird. His bill is long and curved, with big head and short neck, around his eyes are red and other bright colors, which makes him have a graceful appearance. The body is chunky and nearly all feathers with short stubby wings, long tail and short feet which are like a Kingfisher has,—two toes in front and two behind. These short feet are put in use very often as this bird rarely ever flies, but his feet makes up for all of this. I will willingly say that he can outrun a race horse. They will eat anything from a lizard to a fish. These birds are not found in large woods as they prefer the open, their regular haunts are road sides along small creeks where the timber is scattered and small viney thickets. They build their nests in low trees and bushes of sticks, manure, and trash. They are

poorly constructed, in a flat round shape. The nest is never over ten feet from the ground and that is unusual, but I have found them as low as two feet from the ground. The eggs are double shelled and snow white. Without giving any measurements, I would say they are about the size of a bantam chicken's egg. The usual sets are from four to six, although I found a set of seven and Woodruff Yeates found a set of ten, but I think two birds must have laid these eggs.

R Graham.

Osprey.

On October 3, 1915, while driving through the country just southwest of Urbana, Illinois, Professor Smith and I saw an Osprey sitting on one of the cross-arms of a telephone post along the road. The bird did not fly but sat calmly watchful as we passed by.

Walter A. Goelitz.

Albino Eggs of the Black Skimmers.

By Stanley Clisby Arthur
Ornithologist of the Conservation
Commission of Louisiana.

A person, animal or plant exhibiting an abnormal congenital deficiency of coloring matter is called an albino. The term is applied to plants which are white through a lack of chlorophyll; to an animal whose coat is white whereas the type color may be brown, black or gray; to a bird whose plumage is white instead of being colored like its species.

Since the discovery of albinism among the negroes of West Africa by Portugese mariners many hundreds of years ago this curious phase of nature has attracted the close attention and study of those scientifically concerned. Albinism, according to the best authorities, is most common and most marked in the negro and Indian races and it occurs in all parts of the world



Nearer view of nest and eggs of Duck Hawk in situ

—Photo by J. B. Dixon

and among all the varieties of the human race but, undoubtedly, our wonderment grows when we see it evidenced among the lower orders as in plant, animal, insect and bird life all about us.

A curious phase of this abnormal whiteness was thrust forcibly on my notice in June of 1915 when I was with Col. Theodore Roosevelt on his visit to the bird island reservations of Louisiana where the breeding colonies of terns, gulls and black skimmers are guarded during the summer months from molestation by the Conservation Commission of Louisiana.

We were ashore early one hot June morning and I was photographing a particular fine flight of a hundred or more black skimmers as they "skimmed" over the surface of the Gulf of Mexico, the majority of these queer-billed birds having their under mandible under water. I was asked to point out, from many thousands of eggs that lined the long sand shingle for about two miles, the eggs of this particular bird. This is an easy matter for the skimmer, as perhaps most readers of this magazine know, lays a clutch of four eggs and "scoops" out a nest in the sand, while the Caspian, Cabot and Royal terns deposit their, usually one or sometimes two eggs, on the undisturbed surface.

I had pointed out a typical nest, fours, but, happening to glance just beyond my outstretched arm, I made a discovery. It was a skimmer's nest with three eggs, one of which was white with black spots. The body color of the typical black skimmer's egg is pale buff, spotted and splashed with dark browns, and blackish, and pale neutral tints. Consequently I was interested.

I pointed out this "freak" to President M. L. Alexander, of the Conservation Commission, and said: "Here

is a strange thing—a black skimmer's egg inclining to albinism." The "find" came in for a general observance by the whole party ashore on Breton Island and duly wondered at. We had not gone twenty feet forward when I discovered another white egg among two other typical specimens. This one was more than inclining toward the peculiar white phase—there were traces of the blackish spots only and these showing so faintly as to give them a bluish or lilac cast. Five minutes later a third freak nest was discovered and this one contained what I was wondering if I could be lucky enough to find—a perfect, or wholly white, albino egg!

A careful search of the beach for more such specimens pregnant with results. I located eleven pure white, twenty-seven nearly pure white and nine with a white ground but blackish spots. I located them in nests of twos, threes and fours but not one nest had more than one such egg and, in one nest that I marked off and examined later in the day, a typical egg was laid after an albino egg had been deposited. One thing that I wanted to know but did not find out was—whether or not the "freak" egg was laid first and the typical eggs afterwards. I am inclined to doubt that this is the case for not in a single instance did I find a nest with a single albino egg and I did see many hundreds containing the first of the clutch and in every case the one egg was a typical one.

I made a collection of these eggs for the Louisiana State Museum and that they were fertile was proved when Curator Robert Clark prepared them for the cabinet for each contained an imago of perfect form and growth. That the albino egg will produce young was demonstrated on a later tour to Breton Island (which, by the

way, is the only place I have seen albino eggs) where a nest of two typical eggs and two young were found. The second chick to emerge had not as yet gotten its down dry and it came from a practically, pure white shell.

Naturally a proper study of this phase of nature would be to watch the successive stages of a skimmer chick born in an albino shell and so learn if the deficiency of pigmenting in the lime shell would follow the bird to maturity and be evident in its plumage. Such a study is hardly practicable but next year Professor Glenk and I intend making the experiment of rearing skimmers from albino shells provided, of course, we find the albino eggs.

In Darwin's "Variation of Animals and Plants Under Domestication" attention is made that "two brothers married two sisters, their first cousins, none of the four or any relation being an albino; but the seven children produced from this double marriage were all perfect albinos."

Does this point out a possible solution to the mystery of the albinistic eggs of the Black skimmer found on Breton Island? Does it mean that mating has taken place between two birds from the same nest? If it does why were not all of the eggs in the clutches that contained albinistic specimens, white? Why is an egg, evidently not the first nor the last laid, so lacking in pigment granules while the others from the same oviduct have the spots and splotches that make them things of beauty to the observer and collector.

I am frank to admit that I have not studied bird eggs very thoroughly—my greatest interest has always been seeing them in the bird's own nest and left strictly alone—and there may be a simple answer to the occurrence of the white eggs among the skimmers

of Breton Island, an answer some reader of THE OOLOGIST has on the tip of his typewriter. I, for one, would be interested in knowing it.

And, a last question, is it proper to term these white eggs albino eggs? Are they really albinistic in the accepted sense?

Frank B. Armstrong.

Through the columns of the last issue of the Auk we learn of the death of Frank B. Armstrong of Brownsville, Texas. Than he no better known collector and field oologist existed in North America and we believe that Mr. Armstrong in his time supplied more specimens of this character to museums and private institutions than almost any other man living; hundred of which now rest in our case, many having been received direct and others from all parts of the country by exchange and with the collections we have purchased. We have always regarded Mr. Armstrong's specimens as absolutely reliable and authentic and indeed are sorry to miss from our ranks this veteran of fifty-three years of age.

Sora Rail.

Richard F. Miller of Philadelphia, Pennsylvania, reports the finding of four Sora nests this year in Northeast Philadelphia in the city's limits, where they are not supposed to breed by local ornithologists, containing seven, nine, eleven and twelve eggs respectively.

North Platten, (Nebr.) City Schools.

Biology Department

Local Faunt. Birds No. 4.

The following is a composite list of all the birds seen on Bird Day, May 15, 1915, by the members of the Meadowlark Bird Club of this city. Miss Laura Murray, a teacher in the

City Schools, is leader of this club. The start was made at about 5 a. m. with nearly forty in the party. The trip covered about three miles, starting at the Washington school building and going to the North Platte River and a short distance the other side and back. The weather was clear and cool with a light breeze from the northwest. (The editor can vouch for the list except the Sparrowhawk.)

1. Maryland Yellowthroat (probably *occidentalis*).
2. Yellow-headed Blackbird.
3. Yellow-billed Cuckoo.
4. White-throated Sparrow.
5. Western Meadowlark.
6. Western Warbling Vireo.
7. Solitary Sandpiper.
8. Red-shafted Flicker.
9. Downy Woodpecker.
10. Arkansas Kingbird.
11. Eared Grebe (Specimen found).
12. Northern Flicker.
13. Bronzed Grackle.
14. Least Sandpiper.
15. Baltimore Oriole.
16. Mourning Dove.
17. Brown Thrasher.
18. Chipping Sparrow.
19. Red-winged Blackbird.
20. Orchard Oriole.
21. Robin.
22. Magpie.
23. Killdeer.
24. Kingbird.
25. Barn Swallow.
26. Belted Kingfisher.
27. Catbird.
28. Bluebird.
29. Blue Jay.
30. Yellow Warbler.
31. Horned Lark.
32. Towhee.
33. Mallard.
34. Goldfinch.
35. Sparrowhawk.
36. Cowbird.

Issued June 12, 1915.

The Original White Wings.

The term "gull" usually is associated in the popular mind only with the long-winged swimmers seen along the salt water shores and in coast harbors. There are represented in the United States, however, twenty-two species or sub-species. Of these some are true inland birds, frequenting prairies, marshes, and inland lakes. Flocks of gulls on the waters of our harbors or following the wake of vessels are a familiar sight but not every observer of the graceful motions of the bird is aware of the fact that gulls are the original "white wings."

As sea scavengers they welcome as food dead fish, garbage, and offal of various sorts, and their services in cleaning up such material are not to be regarded lightly. It will, however, surprise many to learn that some of the gull family render important inland service, especially to agriculture. At least one species, the California gull, is extremely fond of field mice, and during an outbreak of that pest Nevada in 1907-8 hundreds of gulls assembled in and near the devastated alfalfa fields and fed entirely on mice, thus lending the farmers material aid in their warfare against the pestiferous little rodents. The skua also feeds on mice and lemmings. Several species of gulls render valuable service to agriculture by destroying insects also, and in spring hundreds of Franklin's gulls in Wisconsin and the Dakotas follow the plowman to pick up the insect larvae uncovered by the share.

That at least one community has not been unmindful of the substantial debt it owes the gull is attested in Salt Lake City, where stands a monument surmounted by a bronze figure of two gulls, erected by the people of that city "in grateful remembrance" of the signal service

rendered by these birds at a critical time in the history of the community. For three consecutive years—1848, 1849, and 1850—black crickets by millions threatened to ruin the crops upon which depended the very lives of the settlers. Large flocks of gulls came to the rescue and devoured vast numbers of the destructive insects, until the fields were entirely freed from them. It is no wonder that the sentiment of the people of Utah as reflected through their laws affords gulls the fullest protection.

Of the 68 bird reservations, some 27 situated on the seacoast or on islands in the Great Lakes are visited by the gulls in migration and frequented by them during the breeding season. In these reservations the birds find safety from human molestation and local wardens have endeavored to reduce their wild native enemies to a minimum.

Among the birds frequenting these reservations are the glaucous-winged, western, herring, California, and laughing gulls. Thus these reservations protect several of the most important species of North American gulls.

Through the efforts of individuals and the National Association of Audubon Societies, guards and wardens have been employed along the coasts until it is probable that there is no important colony from Maine to Florida not guarded during the breeding season. A few colonies are protected on the Gulf coast, and on the Oregon coast breeding-places are guarded by State wardens. As a result of this protection herring gulls along the coast of Maine have increased considerably, while laughing gulls are beginning to be common once more in various localities where they had been almost exterminated.

Fully as important for the protec-

tion and increase of gulls has been the enactment of state laws prohibiting their killing of any time of year and of laws prohibiting the sale of their plumage. Gulls with their close allies, the terns, have been among the greatest sufferers from the millinery trade. As is usually the case, the birds were shot on the breeding grounds during the height of the nesting season, thus causing the death not only of the parent birds, but insuring the death of the young birds by lingering starvation. Some years ago the public awoke to the barbarity of such slaughter, and after much agitation New Jersey, in 1885, enacted the first effective state law prohibiting the killing of gulls. This example has been followed by other states until now—1915—there are forty states which protect gulls all the year. Louisiana protects them during the breeding season, February 1 to August 1, while five states—Montana, Idaho, Nevada, Arizona and New Mexico—offer them no protection at any time of year.

The surest way to protect any given bird is to remove the temptation to destroy it, and so the most certain way to stop the killing of gulls for the millinery trade is to prohibit the sale of gulls' wings and plumage, so that the plume hunter can find no market for his spoils. To California belongs the credit of incorporating in the game law of 1895 the first law in this country prohibiting the sale of gulls' plumage for millinery purposes. Many states followed this lead until, in 1910, New York, enacted the most drastic law of all, prohibiting not only the sale but the having in possession of the plumage of any bird belonging to the same family as any of the birds of the state of New York.

U. S. Dept. of Agriculture.

Bulletin No. 292.

Distribution and Migration of North

American Gulls and their Allies, by Wells W. Cooke, U. S. Dept. of Agriculture, Bulletin No. 292.

This Bulletin, released October 25, 1915, is one of the best distributory papers that has come to our notice for a long, long time. Particularly beneficial to the Oologist is that part of the paper showing the breeding places of the various members of the family, on skeleton maps.

We opine an examination and comparison of these maps with the data that has been sent broadcast with various species of Gull, etc., eggs in years gone by will cause some misgiving in the minds of those who imagine they possess or have possessed some rare specimens belonging to this family of birds, and may yet bring the distributors of some of these specimens more or less prominently into the public print.

However thorough the paper may be, and it appears to be very thorough, we doubt if it is entirely complete. One glaring omission of which the editor has personal knowledge, is the omission of the breeding of the Ring-billed Gull (*Larus delawarensis*) on Big Quill Lake, Saskatchewan, Canada, where the writer and John F. Ferry found it in large colonies in 1908, which record was published in *The Auk* the year following Mr. Ferry's death in a paper prepared by him in his lifetime and proof read by the editor.

Queer Nesting Places.

In the spring of 1904 a blue bird built its nest in an old tea-pot out in the smoke house, Smith Co., Texas.

In the summer of 1913 a mourning dove built its nest on the seat of a riding plow that stood in the barn lot. I should not say "built" for it built no nest, but layed its two white eggs on a sack that covered the seat, Cleveland Co., Oklahoma.

A friend of mine, Houston Boaz, has a fruit jar to which a wren comes every year to build its nest. The jar is laying on its side on a shelf above the door of the work shop on the inside. She goes through a crack in the wall when the door is closed. Wyandotte Co., Kansas.

This summer (1915) I built a four-roomer martin house and set it upon a pole. Two pairs of purple martens occupied the suite of rooms on the west, while two pairs of English sparrows took up their abode in the two remaining ones. They each raised their young and had no disputes as far as I could tell.

Ralph Donahue.

Bonner Springs, Kansas.

Early Arrival of the Slate-colored Junco.

Last year (1914) I first noted the arrival of the slate-colored junco on November 12, while this year I saw them on the twentieth day of October, or three weeks and three days earlier.

Whether this fact will mean an earlier winter or not, I am as yet not able to say.

Ralph Donahue.

Bonner Springs, Kansas.

A Mixed Tale.

Oological-Zoologically-Illogical.

By Isaac E. Hess.

... There is naught that appeals to the average male, like an eloquent talker recounting a tale; it don't matter much what the tale is about; whether soldier or sailor—ball player or scout; just so there's a point with a humorous twist, why one can have fun with an O-ologist.

Now we Bird Men are scattered so widely apart, 'tis not often that we may converse heart to heart; We must needs be contented with type-written words when we are desirous of talking 'bout birds.

As a "medjum" our little old "O-" is a whale, so I offer an ornithological tale. Away back a dozen or more years ago, a brother collector decided the Crow, had all other birds about backed off their pegs in depositing beautiful series of eggs. Well, Crow eggs are pretty—I'll agree to that much but my choice, is Condor's, Wild Pigeons and such.

But for Crow eggs the Doc—R. L. Jessee, (M. D.) had a sort of a weakness—a partiality. Each season before e'en the Bluebirds had come or the first daring Honeybee risked a real hum, the Doctor'd begin to examine the boughs and the Cottonwood crotches for signs of the Crows.

Some winters the Crows were so thick that perchance they'd outnumber the whole German army in France; We'd locate a flock of a million or so and I'd laugh and say "Well Doc you'll sure have to go, if you get all the eggs those black ladies will lay—they'll keep you O-ologin' both night and day.

Doc had the right system—'tis wise to select a series that 'aint so blamed hard to collect; "to get what we want" is the common rule, yet, 'tis wiser by far to "want what we can get." My series of Passenger Pigeons is nil and I'm longing for nice sets of Condor eggs still.

But Doc got his Crow eggs in sets four to six, recording life histories from "caw-caws" to chicks; But the long rows of Crow eggs enhancing his case reveals but a fractional part of the chase; Each set has its romance—a tale of a trip—of torn pants or barked shins from an unlucky slip—or caught in the arms of an April snow storm—of incidents, accidents, events multiform.

But the beautiful Crow eggs my story's about are not round Doc's office, within or without; Like young lives that perish 'ere scarcely begun,

those beautiful eggs lost "their place in the sun..'

'Twas an April day morning our story begins with soft balmy breezes and opening catkins; We hiked for the timber along the Ambraw—It's really "Embarrass" but that's "Frich ye know."

A Red-tailed Hawk screamed as we entered the wood; Our hearts beat some faster as bird crank's hearts should; A Woodpecker pounded on slippery elm and old Mother Nature was sure at the helm; A Wood Thrush was antheming "do-rae-me-do" but all that Doc heard was the call of the Crow;

He soon had located a nest in a tree; the female flew off and I heard him "Whoop-pee". 'Twas the first for the year, exciting the Doc, who shinned up the tree without shedding his frock. He always was dressed in a dignified way with a long English coat of the style Cutaway. The Crow nest was only twelve feet from the ground and the eggs quite the prettiest that Doc had e'er found. He scooped the six beauties up into his hand; then for the first time wondered how he could land. He couldn't come down with the eggs in his mitt; His basket forgotten was no benefit; He thought of the time when he was a kid, how with mouthful of eggs he could easily skid, to the ground so expertly and ne'er crack a shell; but on this past picture he could not long dwell.

It wasn't a parallel case he well knew; Four Robin's would go in, but six Crow eggs—oh whew; He could not descend by the use of one arm; if he tried it, to him or the eggs would come harm. His arms now were grown tired—alas and alack; he could not reach up now to put the eggs back. What a pickle to be in; it was getting Doc's goat, 'till he thought of that pocket in the tail of his coat.

Ha that's the solution—the eggs found the place and a look of contentment spread over Doc's face. His troubles seemed o'er but I like a clump, yelled "Doctor come here quick, see what's here in this stump";

I had climbed to a series of holes in a stub and was pounding away for dear life with a club. As the Doctor arrived on the scene puffing hard about, (well the numbers I'll just disregard), but a lot of those Squirrels called "Flying" sailed out and landed on tree trunks that stood round about.

As they left the old home nest in ones, twos, and threes, the Doctor began to wake up if you please. They sailed just like pieces of old plaster skid, through the air when expertly tossed forth by a kid. So slowly they sailed as they volplaned the space between the old home and the new landing place, that the Doctor yelled "Club it again and I'll try to capture a specimen when it sails by."

Well I've had lots of fun in the years I grew up, but I've never had more fun since Heck was a pup, than while watching the Doctor run forth, leap and whirl in the wildest of efforts to capture a Squirrel.

While the Doctor ran fast as the Squirrel could sail, he lost every race—it seemed no avail, for when both fleet racers arrived at the tree and Doc grabbed, the Squirrel was not there you see;

When the last little creature flew out into space and the Doctor stood mopping his perspiring face, I slid down the tree stub to rest aching legs and volunteered "Doc, may I see your Crow eggs?"

A wild look—a spasm passed over his face, he looked as though death he would gladly embrace; Then with rare resignation, with face calm and bland, and with infinite caution he reached back his hand.

Have you e'er ordered scrambled eggs—table de 'hote? Doc had this rare dish in the tail of his coat.

The moral to my tale, is this—boys and girls, "When carrying bird's eggs, don't bother the Squirrels.

Philo, Illinois.

J. E. McClary is fast enough, but he has a hen that is a little slow yet makes up in results. He has a double shelled egg laid last Sunday, a couple of weeks late for the chicken show, that is certainly a freak. The outer shell is as large as a small goose egg while the egg proper is very large and apparently a double yolk; between the real egg and the outside shell is the white of an egg but no yolk. Now here's two eggs within an egg within an egg, how much are they a dozen? If you want a "setting" order early as it takes time for this particular brand to develop. Mr. McClary is the Secretary of the Granville Poultry Association and is expected to breed something fine in his line.—Granville Echo, Feb. 9, 1912.

Farmers Kill Wood Pigeons.

London—A stranger coming suddenly into the district near Crediton, Devonshire, this month would have thought that the vanguard of an invading army was skirmishing with the defenders of London. But it was only 4,000 farmers engaged in the extermination of the wood pigeon, a bird which had become a notorious crop pest in that county. It is estimated that the first day's shooting resulted in a bag of 80,000 birds. The district selected for the hunt comprises ten square miles of wooded hills and dales. The birds have long selected this spot as their favorite resting place and comparatively few of them attempted to escape from its boundaries when the slaughter was on.

Two Hundred Sea Birds Buried.

More than 200 pelicans and sea gulls which met death in the recent high tides at Hermosa Beach, were buried by City Marshal Wright Gipson. In many instances the birds perished from lack of food, not having been able to dive for fish in the seething surf. The incident is unparalleled along this coast, according to old-time fishermen.

Birds That Nest in Tarrent Co. Texas and Notes.

As I have not noticed a list from this part I thought it would interest some of the bird lovers. These birds are the most prominent ones that I find raising here every year, although there are many others: Killdeer, Tex. Bob White, Mourning Dove, Turkey Vulture, Black Vulture, Kriders Hawk, Red Tail Hawk, Red-Shouldered Hawk, Harris Hawk, Am. Barn Owl, Am. Long-Eared Owl, Short-eared Owl, Texas Barred Owl, Texas Screech Owl, Burrowing Owl, Western Horned Owl, Road Runner, Yellow Billed Cuckoo, Belted Kingfisher, Red-Headed Woodpecker, Downey Woodpecker, Flicker, Whip-poor-will, Texas Night Hawk, Scissor-Tail Flycatcher, Crested Flycatcher, Phoebe, Blue Jay, Am. Crow, Red Winged Black Bird, Meadow Lark, Orchard Oreole, Boat tail Grackle, Purple Grackle Grass Hopper Sparrow, Lark Sparrow, Field Sparrow, Cassin Sparrow, Cardinal Painted Bunting, Dickcissel, Purple Martin, Red Eyed Vireo, White Eyed Vireo, Bells Vireo, Black Capped Vireo, Mocking Bird, Lomita Wren, Bewick's Wren Texas Bewick's Wren, Tufted Titmouse, Chickadee, and Blue Bird.

Belted Kingfisher.

Mr. G. E. Maxon and myself had awful poor luck this year with Belted

Kingfishers. We had three holes located but never collected a set. There was a pair of Kingfishers at each hole. The first set we tried to take was in a hole about ten feet up on the river bank. We tried our drag hook, but it didn't work, so we said we will have them any how. So we got a pick and tried to dig them out, but after digging for a half a day we gave up in disgust. The hole is as good as ever because we didn't strike it. The second hole was across the river from this one but we never attempted it because it was too high up and no convenient way of reaching. I thought of a ladder, but we were ten miles from Fort Worth, and not a farm house near, so we hit it for the third hole which was six miles back in the direction of town. It was at a gravel pit up about eight feet in a sand bank. We raked in with our drag hook but to our sorrow they had done hatched. All we raked out was bloody egg shells. We are not much experienced on collecting Kingfishers, these holes are the first ones we have discovered in five years, so a little information as to how to go about collecting them would be highly appreciated. Will some brother give us a little information through this valuable magazine.

Two Accidental Finds of Cassin's Sparrows.

These Birds are not plentiful around here, but I manage to get several sets each season. I was on a hike to a Black Vulture nesting grounds in the Rugged hills northwest of here. As I was nearing the top of a hill to my surprise a Cassin Sparrow flew out from under my feet and never even said good by, leaving the nest in a quick flight. I placed them in my box with what I already had and journeyed on to the vulture grounds. But

as luck would have it, the vultures were not at home, the other set was found in a similar location as I was eagerly looking for a vulture's nest. I had just flushed a vulture when up went the Sparrow. She never looked back to tell me hello. I said to myself she flew from right here, and I found that my foot was on half of the nest which concealed the eggs. With one move the eggs would have been broken. On looking them over they were in good shape. Both sets were incubated and contained four eggs. They were found on the 12th and 13th of April.

R. Graham.

Texas Bob White.

Texas Bob Whites were tame when a coy came to the city and was feeding in one of the most important residential streets in town. They fed along the streets for thirty minutes. When boys found them their sling shots were made useful so the Bob Whites left, flying over the city. I never knew before that quail or Bob Whites ever migrated.

R. Graham.

The A. O. U.

The publication in the last issue of THE OOLOGIST of a letter relating to the A. O. U. by H. H. Bailey, seems to have stirred up some criticism, and we are sorry we did not refer to the fact that this, or substantially this same letter had been published in The Auk of last year and was replied to later in the columns of The Auk, where persons interested in the matter will find both sides of the matter.

We are glad to note, however, that the last meeting of the A. O. U. at San Francisco, adopted a rule whereby associate members are permitted to vote in the A. O. U. meetings. It is now up to the A. O. U. associates to attend the meetings and vote.—Editor.

How Did This Turkey Vulture Live?

A Turkey Vulture was lost on my brother's farm one Saturday by some boys, breaking his wing he was left to die. He is now traveling overland because he was seen three miles from where he was shot a week afterwards. What puzzles me is how did this Vulture live. If he is still traveling I guess he is in San Francisco by now as he was going in that direction when last heard of.

R. Graham.

THE BLUEBIRD.

We understand that that popular and deserving publication "The Bluebird," is at present passing through crisis. It has been very well handled by Dr. Swope, whom, we are sorry to say, is in reasonably bad health, but is now getting better. Our understanding is that the "Bird Lovers Association of Cincinnati" has taken over this little magazine and that this organization is strong enough financially to push it to success. We trust such is the case.

Preparation.

In unpacking a collection of eggs, a person can get a general idea of the thoroughness and accuracy of collectors, by an examination of the specimens. And it is truly a pleasure to come across a set prepared by such experts as Virgil W. Owens, E. J. Court, Fred M. Dille, Henry W. Beers, Oscar E. Baynard, the Treganza brothers, and men of that class.

We present with this issue a photographic half-tone of a set of nine Florida Wild Turkey in situ, which are in our collection through Oscar E. Baynard, and a more beautifully prepared set of eggs it would be indeed hard to find.

We propose during the coming spring months to devote one issue of THE OOLOGIST to a review of differ-

ent methods of preparation and arrangement of ornithological and oological specimens, with illustrations, showing the advanced methods, and communications from well-known experts. This issue will probably be used for years to come as a general

book of directions on these subjects, and we would appreciate it if our readers would send us at as early a day as possible, such communications on these subjects as they believe would be beneficial and interesting to OOLOGIST readers.



Nest and Eggs of Florida Turkey in situ, taken and photographed by Oscar F. Baynard. This set of eggs is in our collection



Close view of Nest and Eggs of the Red-bellied Hawk
—Photo by J. B. Dixon

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WHOLE NO. 341

Owned and Published Monthly, by R. M. Barnes, Albion, N. Y., and Lacon, Ill.



NEARING EXTINCTION

Pair of Trumpeter Swan on Editor's Home Place, August, 1914.

Photo by Charles E. Martin

There are but nine living specimens of this magnificent bird known in the entire world. It can only be saved from complete extinction by adopting the methods adopted by the American Bison Society to preserve that famed animal from obliteration. The Editor stands ready to be one of ten to contribute \$1,000 apiece to make this effort. Where are the other nine?

R. M. BARNES.

A Belated Nest of the Olive sided Flycatcher.

The Olive Sided Flycatcher arrives in Nova Scotia about the 22nd of May and by the first week in June the birds are usually paired and nesting operations underway. Full sets of fresh eggs of the first laying may be taken from the tenth to the twenty-first of June.

These birds are rather local in their distribution and like Hawks, Owls, loons, etc. each pair seems to have its own special preserve or domain, into the confines of which, others of the same species are not permitted to intrude.

On the 4th of June, while passing a suitable nesting grove of spruce trees, about a mile from Wolfville, my attention was called to the loud, clearly accented notes of the 'Olive Sided' so aptly translated by Chapman into the phrase "come right here." Crossing a field and a brook I was soon beneath the tall dead tree, the topmost twigs of which seemed to suit him admirably for a perch.

I knew I was too early for eggs, but I confidently expected to find the nest either ready for eggs, or in a state of semi-completion. Having discovered upwards of fifty nests of this species, during the years of my field work, I knew probably well how to begin what to expect from the birds.

As I approached the tree the "come right here," call changed to the well known note of alarm—"tip-tip-tip"—"tip-tip-tip" which always sounds to me like "go-a-away—go-a-away" (a translation which seems quite fitting). I looked about in vain for the female. The scolding of the male was kept up for about ten minutes, while I was moving from tree to tree hoping to see the nest. Suddenly the calling ceased and the bird flew off and alighted on a dead tree some two hun-

dred yards away, ignoring my intrusion completely. Now experience had taught me that this was not the normal behavior for nesting "Olive Sides," so I decided to waste no time looking for the nest and I went away somewhat puzzled.

Four days later I returned and there he was perched on the self same prong of that dead tree, and as I drew near he plainly showed his objections by repeated scoldings and altogether nervous manner. Still no female in sight. I thought that by this time she might possibly be sitting on the eggs and as some of the branches were thick and most of the trees quite tall, I resorted to an oft-tried trick of tossing a stick or stone into the boughs to frighten her from the eggs, thus revealing the location of the nest. This proved unsuccessful here and was soon given up as the lone bird had by this time flown to another part of the grove and only occasionally gave a half hearted note of alarm. As I was about to leave, more puzzled than ever, I noticed on a flat limb of one of the smaller trees, a spot which seemed to show up as a dark patch against the sky. I climbed up and found what appeared to be a new nest ready for the lining. By this time the male had returned and by his actions, seemed to take more than a passing interest in what was going on. I was satisfied now that I had found the nest and that I had just happened along when Mrs. Flycatcher was away from home.

Early in the morning, June 15th, I went back. At first no bird was in evidence, but before I got to the first trees the male again appeared on his favorite perch and began telling me to "go-a-away," but not as though he cared very much and by the time I got to the tree which contained the

nest he was not to be seen at all. This was not in order, but still, as I climbed the tree I expected to find one egg at least. Imagine my surprise at finding the nest just as I had left it and still only one bird about the grove. I went home in a "brown study." My theory was this:—The bird is an unmated male and the nest an old one. Still I was far from satisfied, for why this regular show of alarm when I come near (half hearted tho it was) and why was he always about this one little clump of spruces? The feeding was not better there than elsewhere. No, he had some special interest in this grove and the fate had decreed that I was soon to know what that interest really was.

About five hundred yards away from these spruces in question there is an old estate. The house occupied by Mr. . . . is surrounded by tall graceful elms and some maples, but no coniferous trees.

On June 20th while playing tennis I happened to meet the daughter of Mr. . . . who called my attention to an Olive Sided Flycatcher perched on the top of a nearby flag-pole. Pointing to the pole she asked what kind of bird that was which made that peculiar note. I told her and she then said that a short time ago one of these birds had been a frequent visitor at her home, coming at an unrighteously early hour in the morning. So annoyed had the family become at its loud and persistent calling that her father had finally shot the "nuisance" as she termed it. Immediately the thought flashed through my mind that here was an explanation for the widowed state of my solitary friend of the grove. Giving some casual excuse for my interest, I asked as to the date of this occurrence, and was told that it hap-

pened about three weeks before, which date would tend to confirm my theory as above stated.

On June 27th I happened to be in the vicinity of this grove of spruces and being curious to know whether the male was still holding out there, I decided to "call around." When still some distance off I was agreeably surprised to hear the familiar call and to see him perched on the tall dead tree. I was about to console with him on the untimely loss of his mate when I was delighted to find that now, he was not alone. He had found a new mate and she was indeed busy going from tree to tree and branch to branch, settling down among the twigs, twining and twisting about; unmistakably looking for a nesting site. Two days later I returned and had the pleasure and interesting satisfaction of discovering that she had chosen for the nesting site the same tree as had her predecessor. At first I thought she was going to complete the old half finished nest, for she flew and lit beside it. But I soon saw that she was removing it, twig by twig to the other side of the tree, at the same elevation—(about fifteen feet) and about half way out on the limb. I watched her for nearly an hour binoculars, from a distance of about one hundred yards. During this time she made about one dozen trips to the new nest, stopping between times to feed. She was apparently in no hurry. Only about once in every three would she make a trip to the old nest, (about six feet away) for material, but I noticed later that no trace of the old one was left. Once I saw her fly to the dead tree, near her mate and attempt to break off a twig. It wouldn't come, so she hovered by it in the air and then grasping it firmly in her beak, she let herself fall and in this way secured the twig she wanted.

While I was thus watching these

birds, there occurred an incident, which though it be aside from the main point, seems worth recording. The birds now were perched near each other on the dead tree. The male was on the topmost prong as usual. Suddenly I saw him dart upward with great speed at an angle of about seventy degrees. Immediately following him went the female. After rising about one hundred feet in straight flight, the pair began to ascend in circles which grew smaller as they rose. They kept quite close together and yet there was no appearance of one trying to overtake the other. Finally when they were specks against the sky, they seemed to pause, and then down they came with wings partly folded in jerky, erratic flight, in true woodcock fashion. During the whole novel performance, I heard no note and when they alighted again, they began feeding as though nothing had happened. This is the only time I have ever seen the Olive Sided perform in this manner.

Only July 4th, I again visited the nest, feeling sure there would be eggs by this time. The nest was completed but empty and the birds objected vociferously when I climbed the tree.

About this time I left Wolfville. Returning July 16th I went to the nest. It contained three beautiful marked eggs, incubated, but slightly. Both birds were very bold in the defense of the nest and in darting at me, came so close that I could feel the rush of their wings as they passed and hear their beaks snap. They would alight within ten feet of me and continue the snapping of their beaks, sometimes, before darting again. The alarm note is now uttered continuously as above described.

This for a first nest was remarkably late, but under the circumstances quite excusable.

Where he was fortunate enough to find a second mate at this unseasonable time is still a mystery. Possibly it was some female whose own family had been broken up by a tragedy similar to his own,—a tragedy which some small boy with an air gun, or some "pet" cat might be able to explain.

R. W. Tufts.

Barn Owl.

It was on the 9th of May when a friend came to me and said that he had shot a beautiful Owl, and knowing that I was interested in birds asked me if I wanted the bird for mounting purposes. I asked him what kind of Owl it was he said he did not know but he thought it was what is called the monkey faced owl, and upon asking him what his object was in shooting the bird he told me that the bird was flying over the chicken park and he fearing it being what he called a chicken Hawk so he shot the bird but was very much surprised when the bird fell that it was an Owl.

So my friend started back to get the bird, he returned within about two hours he did not have the bird, but told me that I had better go with him for they had captured another bird of the same kind and also two eggs.

I at once started for the place where the owl was, it was five miles from town and within an hour's time we reached the place. I found to my surprise a pair of barn owls, one was still lying where it fell after being shot and the other had been crippled when it was taken from the hollow of the tree and was in a large box and two eggs had also been taken from the tree.

I was very sorry that these beautiful birds had been disturbed but was going to do all in my power to restore the captive bird to its freedom, and upon asking my friend where the tree was that the captive bird had been taken from he took me to the barnyard about ten rods from the house. Upon arriving there he pointed to a tree about ten feet from the barn. There was a large opening in the tree about twenty feet from the ground and in this hollow the

owls had been nesting, the birds had been disturbed and when the male bird was flying to the tree it was taken for a hawk and was shot, shortly after the female was seen, and it soon disappeared in the hollow of the tree. The tree was at once assented and after a short struggle which resulted in fracturing the wing of the bird it was captured and the eggs were also taken.

After having this I took the two birds and started for my home. When I arrived I at once made a place for the crippled bird. I had it for several days; its food consisted of sparrows, which I shot and also mice.

I was very much surprised one morning to find another egg which the captive bird had laid, and I also noticed that the bird was making use of the fractured wing. On May 14th the bird seemed to be in perfect health and I opened the door of the cage and restored the bird its freedom.

C. F. Pahrman.

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"BLUE BIRD."

We are in receipt of an announcement that commencing with the December issue of this publication, it will be owned and edited by Elizabeth C. T. Miller in co-operation with the Cleveland Bird Lovers Association, at 1010 Euclid Avenue, Cleveland, Ohio.

We trust Blue Bird will prosper under the new management. There is room for such a publication and we extend to its new owners our best wishes.

◆◆◆

Notes on the Acadian Flycatcher in the Vicinity of Philadelphia, Pa.

The Acadian or Green-crested Flycatcher has evidently decreased in the vicinity of Philadelphia during the past decade. It was formerly a common breeder along the Schuyl-

kill River above Manayunk during the late '80 and early '90s, according to the late Harry K. Jamison, as evidenced by the many breeding records in his note book, but it is now a rare bird in that region.

Not knowing anything of the environment of the region in Jamison's time, I cannot explain the cause of the bird's disappearance, but the locality today appears well adapted to the needs of this species, yet the birds are rarely found there now. Jamison also found the Green-crested Flycatcher to be a common breeder along Mill Creek, in Montgomery County, two miles above West Manayunk, and on the Wissahickon Creek, in Philadelphia. It still occurs abundantly along the latter stream, but is rather uncommon on the former.

The Acadian Flycatcher has almost entirely disappeared as a breeder on the Tacony Creek in Philadelphia and Montgomery Counties but is rare on the Poquessing Creek in Bucks and Philadelphia Counties. It occurs in small numbers only on the Neshaniny Creek in Bucks County and Crum Creek in Delaware County.

According to my observations, it is slowly disappearing everywhere about Philadelphia except on the Wissahickon Creek in Fairmont Park, Philadelphia, where in the extensive forests that covers the banks of this stream with both coniferous and deciduous trees, the species is apparently increasing.

The Acadian Flycatcher is not found or occur rarely on the tide-water streams in New Jersey in the vicinity of Philadelphia according to my observations.

Richard F. Miller.

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Are Our Birds Becoming Fewer?

This is apparently a question hard to solve without a comprehensive



Quail on Nest Showing Protective Coloration

—Photo by Paul G. Howes

knowledge of ornitology, universally speaking, and one that would require the co-operation of ornithologists to settle definitely, but to localize: then it is not a hard matter to name species that are becoming less abundant and rare with each succeeding year, provided you have a knowledge of the ornitology of a certain region for a large number of years. The most skeptical bird student cannot refute this assertion.

In the densely populated regions, but especially in the close proximity of our big cities, bird life is most assuredly getting scarcer and the causes are obvious enough to the most casual observer. The steady and incessant growth and expansion of a city causes the destruction of bird haunts, as year after year, woods are felled, thickets cleared, swamps and marshes drained and reclaimed, etc., for building purposes, ruining and forever wiping out the habits of bird peculiar to these associations. But no matter how big a city may grow and expand in urban size, there always remains a rural region or country surrounding it and its enlargement does not necessarily drive away the birds, but deprive them of their former haunts as the birds move and spread out farther with the city's growth and inhabit the suburbs always around it. Yet, despite these movements, the birds are decreasing in appreciable numbers all about the cities and the chief cause of their diminishing numbers can safely be attributed to alien gunners, cats, and the boy with his rifle and cheap shotgun, these being our bird's worst enemy everywhere.

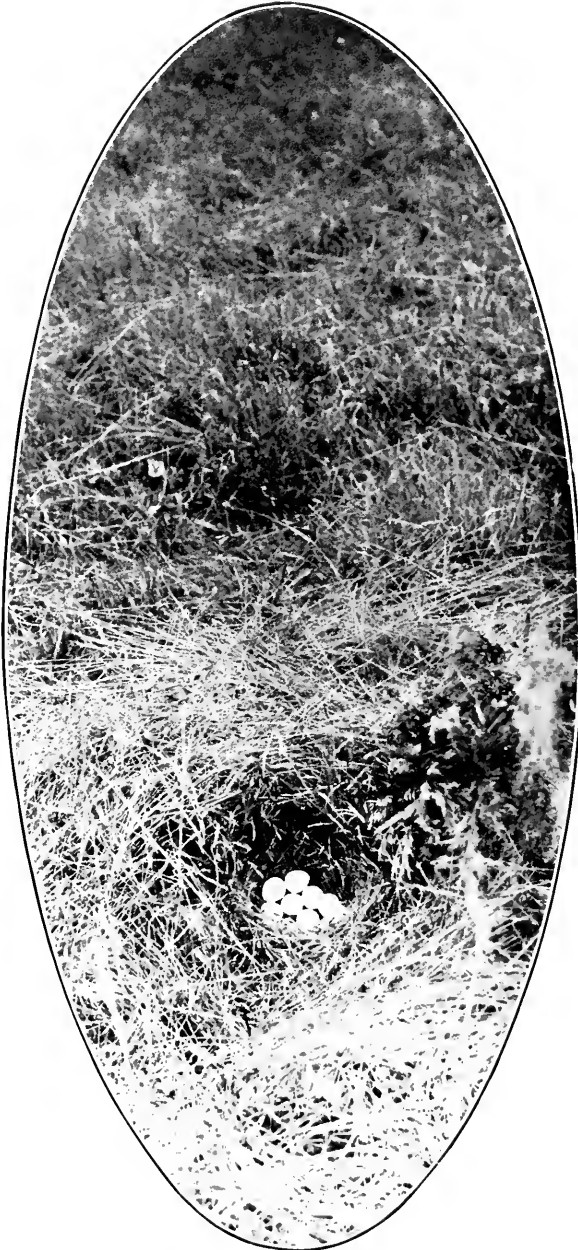
Changes of environment are everywhere affecting our birds. The primeval forests of Pennsylvania have been all but exterminated, causing the destruction of most of the cana-

dian fauna in this state, and causing birds of this element to seek a more congenial habitat farther north or in a higher altitude possessing environments suitable to their nature. Birds of the upper Austral and Transition zones are pushing up into the Canadian fannas, and even the Tufted Titmouse and Yellow-breasted Chat are trespassing into the most boreal regions in this commonwealth, where a decade ago they were unknown, all on account of the destruction of the virgin timber and the original fanns and flora.

Although most of our birds are decreasing about our cities, it is gratifying to find others that are increasing. In southeastern Philadelphia such species that have perceptibly increased during the past ten years are the Blue winged and Kentucky Warblers, Orchard Oriole, Redstart, Scarlet Tanager, Rose-breasted Grosbeak, Florida Gallinule, Least Bittern, Hairy Woodpecker and Starling. The Starling has increased in astonishing numbers during the past several years and at the present rate of its increase and dispersion bids fair to soon rival the House or misnamed "English" Sparrow in numbers and abundance. The Yellow Warbler probably shows a bigger decrease in numbers in this region than any of our smaller birds. The Caroline Wren was beginning to increase here but it has again become scarce in the last four years, altho it was never common. The Black-billed Cuckoo, never a common bird in this vicinity, has practically disappeared as I have not seen any during the past three years.

These as well as other species could be cited to show how all birds have increased or decreased in the vicinity of Philadelphia and the conditions are probably the same in other cities everywhere.

Richard F. Miller.



Nest and Eggs of Quail Showing Habitat August 1, 1913, Long Ridge, Ct.
—Photo by Paul G. Howes

**Birds Famous in History and
Mythology.**

Old Abe.
 The Jail-bird.
 Pliny's Dove.
 The Dicky-bird.
 Minerva's Owl.
 Shelley's Shylark.
 The Dove of Peace.
 The Cranes of Ibycus.
 Coleridge's Albatross.
 Bryant's Water-fowl.
 The Immortal Phoenix.
 Jackdaw of Pheinis.
 Sacred Imis of Egypt.
 Barnaby's Rudge's Raven.
 The Great American Hen.
 Robinson Crusoe's Parrot.
 Footless Bird-of-Paradise.
 The Raven released from the Ark.
 The Sacred Ibis of the Stryphalides.
 The Raven that fed Elijah in the wilderness.
 The Vulture that preyed upon the liver of Prometheus.
 The Pigeon into which Semiramis was turned into.
 The Peacock that once contained the soul of Pythagoras.
 The Roc which laid an egg as big as an ordinary hogshead.
 The Gray Goose one of the flock whose cackling saved the Roman capitol.

Richard F. Miller.

DR. R. W. SHUFELDT.

The readers of the Oologist are to be congratulated upon the fact that as prominent and well known scientist as Dr. Shufeldt has kindly consented to contribute occasional articles for our columns. Dr. Shufeldt is perhaps the best known living American Ornithologist and has been quite active with his pen of late.

THE AUK for October, 1915, contains an article by him on "The Fossil Remains of an extinct Cormorant

found in Montana" and also an obituary of Dr. Otto Herman.

NATURE STUDY REVIEW for October, 1915, likewise contains the second installment by the doctor on "Nature Study and the Common Forms of Animal Life."

THE ANATOMICAL RECORD for October, 1915, is an exhaustive paper on the "Comparative Osteology of certain Rails and Cranes," illustrated.

In OUR DUMB ANIMALS for October, 1915, is an article relating to "The Quarrelsome King Bird" from Dr. Shufeldt's pen, and THE COUNTRY GENTLEMEN for October, 1915, is embellished by the same author with a splendid appeal "Don't Shoot the Owls," and it will not be long until the contributions from the same pen will be enjoyed by the readers of this magazine.

Editor.

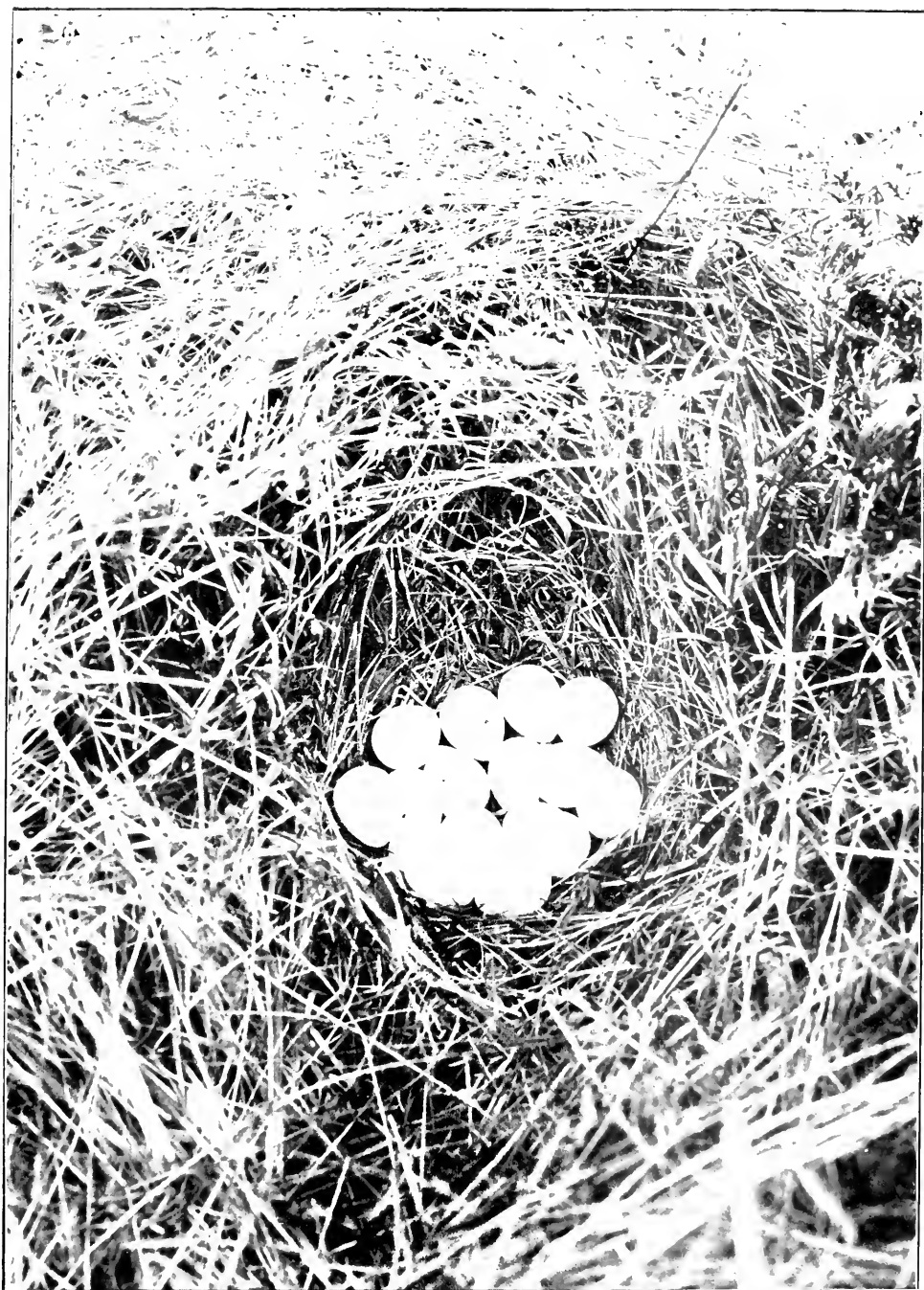
Some Western Birds.

BURROWING OWL.

Theodore Roosevelt gave to this species the descriptive name of "picket pin," and well does it apply. Sitting motionless in the hot sun at the entrance to his burrow, he resembles nothing in the world so much as a stake driven into the prairie. The rancher views him with a friendly eye, and calls him "Billy Owl."

His scientific cognomen is Speotyto cunicularia hypogaea, and the Check-List gives his range as the Western United States from the Pacific Coast to the Missouri River, and from Canada south to Panama, with accidental appearances in New York and Massachusetts. A Southern form, Speotyto cunicularia floridana, is resident in the southern parts of Florida and differs from our bird principally in being smaller and paler.

North of about the forty-fifth par-



Nearer view of same Quail's Nest

—Photo by Paul G. Howes

allel the Ground Owl is migratory, but here in Southern California he is resident throughout the year from the base of the mountains to the very edge of the Pacific Ocean. The breeding season is at its height in Los Angeles County by the middle of May.

Every patch of pasture-land has one or more pairs. On the grass-covered slopes of Point Firmin above the harbor of San Pedro I have found them breeding in colonies of twenty or more pairs. Here I have spent many pleasant hours watching the little fellows; and incidentally many hours of hard labor digging for their round white eggs.

Some writers have it that the birds excavate their own burrow, but I have never found any evidence of this, and believe that in the majority of cases, if not invariably, they take up quarters in the deserted burrows of various small quadrupeds such as ground squirrels, prairie dogs, and rabbits.

These holes are from four to ten feet in length, and are of varying shapes; some are straight while others are driven in the shape of a horse-shoe. From six to twelve inches in diameter, the burrow widens out at the end into a small chamber a foot or more across, and from two to four feet below the surface of the earth.

The Burrowing Owl betrays his nest by the quantity of dry horse or cattle dung that lines it from the entrance to the nesting chamber proper; the latter being thickly carpeted to a depth of two to four inches with this material. Sometimes dry grass, rags, paper or what ever other suitable substance may be available is used. In the vicinity of San Diego I once found a burrow that was lined with cotton waste ob-

tained from the nearby railroad shops.

The eggs are from five to eleven in number, white in color as with all the Owls; the average measurements are 1.25 x 1.00 inches. They are elliptical in shape, the ends being of an equal size. I have often found eggs lying on the ground near the entrance to the nest. These adventitious eggs seem to be infertile in all cases. As both the birds remain in the burrow throughout the day incubation starts with the first egg laid, and a large set shows embryos in all stages of development. No doubt the dung used in the nest gives out sufficient heat to maintain the necessary temperature when the parent birds are absent at night in search of food. I have been unable to learn from my own observation how long incubation lasts, the underground location of the nest making studies of this sort difficult in the extreme. Mrs. Wheelock in "Birds of California" gives three weeks as the time, which figure is doubtless correct.

When hunting in the early evening the birds call to each other with a short "too-oo," the last syllable rising sharply. Another note resembles the "kow-kow-kow" of the California Cuckoo; this latter note is frequently heard as a pair sits on the mound outside their burrow, first one and then the other uttering it as if carrying on a conversation.

All members of the Owl family eject the undigestible portions of their food from the crop in the shape of pellets, and our Burrowing Owl is no exception. These pellets are found in large quantities scattered along the length of the burrows; they are composed of small bones, fur, feather quills, wing cases of insects, etc. The egg-collector can



Quail's Nest showing Unhatched Eggs and one Young Quail one hour old
—Photo by Paul G. Howes

often spare himself a lot of unnecessary labor by examining the burrow before digging, the presence or absence of fresh pellets showing whether or not the nest has recently been occupied.

The Burrowing Owl is of course strictly carnivorous, feeding on mice, gophers, young ground squirrels, lizards, beetles, grasshoppers, and small birds. We may well forgive him the last item of his diet if we take into consideration the numbers of injurious quadrupeds and insects that he consumes. I have often seen our bird hunting grasshoppers in the broad daylight, but as a rule he remains in the burrow during the day and comes out to feed at dusk.

The old "Happy Family" story of how the Ground Owl, Rattle-snake, and Prairie Dog lived together amicably in the same long dwelling has long since been disproven. It has been shown that the Rattler enters the Owl's burrow in search of eggs and nestlings, while the unfortunate young of the Prairie Dog falls a victim to both of his rapacious neighbors.

D. I. SHEPARDSON,
Los Angeles, Cal.

COMMON TERN.

Of late years the Terns have become very plentiful on Sparrow Lake, Muskoka, usually making their appearance during the middle of August and departing towards the end of September. I frequently see them in small flocks, either resting on a rock or on a floating log off shore, or flying gracefully about in the air, uttering their grating te-arr, te-arr.

Last summer I witnessed what appeared to be a common habit with them of following a loon about and when it would come to the surface with a small fish the Terns who had

been hovering about in the air would dart down near the loon and try to snatch the fish away.

George E. Gerald.

THE CAT QUESTION.

I have noticed all along and have read with interest many articles on the cat question in the Oologist and other journals. I say by all means rid us as far as possible of the pesty cat. Most cats are wholly or partly starved and birds at once more attractive and mice more secretive, they almost invariably select the bird. Most people will ask "what would we do without cats, and one needs one or two about." No they don't. A good screech owl is worth a dozen cats and as for rats not one cat in twenty will tackle a rat. What are we to do with the rat then? I'll tell you, get and keep a pair of the common little guinea pigs and you will never be troubled with rats and the guinea pig never disturbs birds. I propose in the near future to do as some others are doing; to always carry a small rifle in the field, a Stevens 22 or a Winchester 25 and pick off every cat I see. They won't be missed and I like cats too.

George W. vos Burgh.

Migratory Notes taken Fall 1915 by

J. B. Ellis, Chokoloskee, Fla.

No. 494 Bobolinks, numerous 9-1-15.
No. 573 Prairie Warbler, 3 specimens 9-20-15.

No. 656 Audubon Warbler, 2 specimens 9-21-15.

No. 611 Purple Martin, 1 specimen 9-24-15.

No. 601 Painted Bunting, 2 specimens 9-24-15.

No. 687 Redstart, 1 specimen 9-24-15.

Number of Vireos and Warblers can't identify without killing them 9-25-15.



Young Quail Posing on Camera Case
—Photo by Paul G. Howes

No. 679 Mourning Warbler, 2 specimens 9-30-15.

No. 751 Blue-gray Gnatcatcher, 2 specimens 10-7-15.

Humming Bird nesting 10-7-15.

No. 722 Winter Wren, 1 specimen 10-7-15.

No. 681 Maryland Yellow-throat, 1 specimen 10-10-15.

No. 567 Slate colored Junco, two specimens 10-11-15.

No. 758a Olive-backed Thrush, two specimens 10-11-15.

No. 627 Warbling Vireo, numerous 10-11-15.

No. 670 Kirtland Warbler 10-11-15. A few Sparrows could not identify 1-11-15.

No. 676 Louisiana Water-Thrush 1 specimen 10-12-15.

No. 775 Pine-woods Sparrow one specimen 10-12-15.

No. 686 Canadian Warbler, 2 specimens 10-12-15.

No. 622 Loggerhead Shirk, 2 specimens 1-12-15.

No. 646 Orange crowned Warbler, 2 specimens 10-12-15.

No. 656 Phoebe, 2 specimens 1-12-15.

No. 459 Olive-sided Flycatcher, 1 specimen 10-12-15.

No. 273 Killdeer, numerous 10-23-15.

No. 140 Blue Winged Teal Duck, numerous 10-23-15.

No. 221 American Coot, numerous 1-23-15.

No. 648 Parula Warbler, 1 specimen 1-25-15.

No. 677 Kentucky Warbler, 1 specimen 10-25-15.

Nearly all the birds became numerous by October 15th and by October 20th nearly all had disappeared.

I have seen no Orioles or Finches this season, they usually are plentiful. I have seen two Sparrows, several Vireos and Warblers and three Juncos not described in any literature I have.

The Rose-breasted Grosbeak.

There is only one species of the Grosbeak that comes here, that I ever have seen and that is the Rose-breasted. A pair of them come here every summer and eat potato bugs. I have wondered if paris green hurts them, but according to my observation they did not seem to mind it. One day I saw a young one in the grass and a Robin was teasing it, but the male Grosbeak came along and put a stop to this. I think the Rose-breasted one of the finest singers we have. They warble so nice. A person can distinguish them easily by their thick yellow bill and the rose colored shield shaped patch on their breast, also by their parrot like movements. The male takes turns with the female in sitting on the green speckled eggs. They like to warble in the twilight. You might think they were away off in the timber and yet they were close by.

R. B. K., Columbus, Wis.

Judge John N. Clark.

HE KNEW EGGS.

There has just died at Old Saybrook, Connecticut, one of the most noted ornithologists in the world. His name was John Nathaniel Clark. As a young man, Mr. Clark took a keen interest in birds and he devoted the greater part of his life to the study of the different varieties and their habits. His work in this line gained him a world-wide reputation, and at the time of his death he stood second to none in the United States as an authority on ornithology.

His collection of eggs of American birds is the most complete individual one known in this country. The collection includes a nest with full set of nine eggs of the Black Rail, the only complete set known to be in existence, and another nest of seven

of the same bird. The nearest approach to this collection of Black Rail eggs is a nest of four in the Smithsonian Institution at Washington. It was his desire to have in his collection the eggs from every species of bird known in America, and there are but few that he did not have.

Mr. Clark has been for many years a member of the National Ornithological Society, and his papers read before the annual meetings of the society were always acceptable as authority. His advice was sought after by ornithologist throughout this country as well as in Europe. Aside from his collection of birds and eggs, Mr. Clark had a rare collection of insects and he also had a small block of nearly every variety of wood which grows in this country.

From an old Philadelphia Press.

Submitted by Richard F. Miller.

We print the foregoing for the sole purpose of showing how even the best of us (and there's none better than our friend Miller) may be led astray by newspaper generalisms.

The writer knew Judge John N. Clark (for he was a judge in that state) by correspondence well, for many years. We have hundreds specimens of North American bird's eggs in our collection taken by him in his lifetime. Many we have received direct from him, and others with nearly every large collection which has come into our possession. He was a naturalist of far more than ordinary attainments. His specialty was oology. But he has not "just died," for Judge Clark has been dead a number of years.

We called at his home in Old Saybrook in the late summer of 1912 finding the place closed as his family were not at home. He had died more than a year previous to that time.

His collection of North American

birds eggs is not and was not at the time of his death, the most complete individual collection known in this country; neither did it approach near to that distinction. It was large and varied, containing about 540 different varieties. It has been the privilege of the writer to examine and catalogue a list of this collection, and of the data accompanying it.

Among the rarities it contained, was a full set of nine eggs of the Black Rail. This, however, is not the only complete set known to be in existence. It may be the largest set for aught that we know, but there are a goodly number of sets of the Black Rail in the United States. Four or five sets that we know of were taken by one collector in the last two years. There are many more sets of Black Rail's eggs in existence in the United States than there are of the Yellow Rail.

It is a pleasure to add to the testimony of the worth and ability of this well-known scientist, but it can be done truthfully in giving him a very high place in the ranks of North American Ornithologists, without overdoing it. We have no doubt our friend Miller has recently been reading "newspaper ornithology."

Editor.

Peculiar Nesting.

Site of English Pest (Sparrows).

On a certain farm in southern Wisconsin there was a barn half full of last year's timothy hay, well mowed and solid almost as a rock or bank of earth; into the front of this, exactly like Bank Swallows a whole tribe of sparrows burrowed and built their usual bulky nest of feathers at an enlargement at the extreme end, sometimes several feet back and where they twittered and squealed like a lot of rats in a free for all fight. The

colonizing was like the Swallow, while the individual burrow and placing of the nest at the back end was like a Belted Kingfisher's.

George W. H. vos Burgh.

Mourning Dove Notes.

These sets may not be unusual but I rarely ever find them in these locations.

June 11, 1910, in a boat tall Grackle nest set of three Mourning Doves.

June 12, 1910, set of two Mourning Doves and three Boat tailed Grackle in Grackle nest.

April 14, 1915, nest of Mourning Dove and two eggs on top of a broken off tree ten feet high.

R. Graham, Ft. Worth, Texas.

The Kingfisher.

The Belted Kingfisher arrives in this part of Illinois, Bureau, La Salle, Putnam and Grundy Counties, the latter part of April or the beginning of May, and immediately looks up his old nesting site and if the same has been destroyed, commences excavating a new hole for a nesting site. In this part of the country it does not require any great amount of physical exertion to procure a set of Kingfisher eggs, for during all my collecting years, I have never had occasion to use a pick, ladder or such other paraphernalia as described by Mr. Maxon. The Kingfisher is shrewd in locating his nesting site, but not shrewd enough to foil the scientific collector, for the reason that the cavity is generally placed at a depth of from two to three feet below the surface of the bank containing the nesting site. The mode of securing the eggs after locating the cavity is as follows: Secure a pliable switch of a length of six or seven feet, measure depth of hole from top of bank then insert pliable switch or stick to get the ankle and length of run-way,

then withdraw your stick and lay upon surface of ground, and by following the angle and measurement on your stick and allowing one foot more, so as to give a change to get in the rear of the nest, the nesting site can be approached, without danger of breaking the eggs or ruining the site.

I generally take a garden trowel and hatchet in cutting down to nesting site and never destroy the cavity for the reason of saving the site for another set.

After digging down and you get near the horizon of the nest be careful by tapping to prevent a sudden entrance, as it may ruin your expectations. I make as small an opening as possible, and after removing the eggs and securing the necessary data, I then carefully replace the earth, after covering the opening into the dome containing nest with a piece of sod reversed and close up excavation and replace top sod. I have taken three sets of eggs from one cavity in one season in the manner described.

L. H. Shadensack.

Introduced New York Game.

Ottomar Reinecke in a letter, advises us that "a great many male Mongolian Pheasants have been shot in New York State this fall by hunters." The female is protected by law, and nearly all of the birds shot were mounted by taxidermists; Dr. Herman R. Grieb, a taxidermist of Buffalo, receiving not less than five hundred for mounting from all parts of New York. This bird seems to be established in some of the Eastern states. It is not yet established in Illinois.

Late Nesting of the Wilson's Thrush.

On the 24th of June, 1915, at Sparrow Lake, Muskoka, I found a nest

of this species, containing one egg in a juniper bush about six inches from the ground. Three days later it held only three blue eggs being considered a set. This is the latest date I have found this bird breeding, nests usually being found during the latter part of May.

George E. Gerald, Toronto, Canada.

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From One Who is Game.

WHITE-BREASTED NUTHATCH.

I suppose that all the Ornithologists and Oologists in North America well know this Nuthatch, top of the head and front part of the back shining black; rest of the upper parts bluish gray; inner secondaries bluish gray, marked with black, wing coverts and quills tipped with whitish; outer tail feathers black with white patches near their tips; middle ones bluish gray; sides of the head and under parts whiter; lower belly and under tail coverts mixed with rufous. The female is similar but the black of the head and back veiled by bluish gray.

His way of providing food for himself and the nestlings is different from the other birds. He flies to the top of a tree and works his way down to secure the eggs and various larvae of insects and in this way is a great preserver of our forests.

I would like to know whether any ornithologists or oologists had any such experience as I have had on April 28th, 1892, in nearby Sherkston, Canada,—closely watching a male Nuthatch, I finally located his home in a basswood tree in a horizontal limb about fifty feet from the ground. It was a terrible climb, but I finally got there. By bringing out those pretty eggs, I also to my astonishment brought out a Cow-bird's egg. I have often taken the Cowbird's egg in other nests, but all near the

ground, for instance with the Yellow Warbler, Hooded Warbler, etc., but never fifty feet from the ground. I have taken another large set of seven on May 10th, 1904, in Tonawanda Swamp, about fifty miles from Buffalo.

This swamp has been drained lately and the nesting site of the Great Blue Heron destroyed, which could have been saved as a State Reservation at a very small cost.

—Written by Edward Reinecke shortly before he died.

1915.

With this issue, we close our labors on THE OOLOGIST for the year, and before doing so, we wish to thank all of our friends who have stood so loyally by The Oologist during the past twelve months.

It has been no little satisfaction to know that at the time of our misfortune, the good friends of this little magazine rallied as one man to its support. The Oologist during 1915 has not been what we would have desired it, but it has been far better than in many other years. It could not have been as good as it was, had it not been for our friends. To those who have helped us make The Oologist in the last year, we feel under deep obligations.

1916.

During the ensuing year The Oologist will be the same Oologist that it has been in the years that have passed, except we hope to make it better with each issue. We have determined to more closely group the various articles relating to different members of the bird family each month than we have been able to do in the past. This will be possible only if our contributors will send us an ample supply of copy. It really

takes vastly more copy to keep The Oologist moving, than the ordinary person realizes.

Next year we propose to issue The Oologist for the different months so far as may be, as follows:

January,—The Eagles and Owls.

February,—The Hawks.

March,—provided we can secure sufficient copy, will be devoted largely to the preparation and arrangement of ornithological and oological specimens, and we especially beseech you, Mr. Reader, to send us something along that line at an early date.

April,—The Woodpeckers.

May,—General Ornithology.

June,—The Warblers.

This is as far as we have determined for the coming year, except that later in the year we expect to devote nearly an entire issue to the birds of the Isle of Pines. We also have two splendid illustrated articles from the pen of Dr. R. W. Schufeldt for use this coming year.

We trust that during the winter months, an ample supply of copy will be accumulated to run The Oologist largely through the coming year, and this is impossible unless each of those interested in its success will do something along this line.

Already our suggestion to those interested in the welfare of this little journal that they send an extra copy to some of their friends as a Christmas present or to encourage them in ornithology, is bearing fruit. R. Graham of Fort Worth, Texas, is the leader in this work so far, but many of our readers have responded nicely.

We would suggest that each and every one of our subscribers whenever writing to The Oologist would include in the communication some short fresh, newsy bird note, if the same is only a line or two. Such a

course would furnish us with many interesting incidents, beneficial to our readers.

Do not overlook the fact that it takes money to run The Oologist, and that money comes from subscriptions. So renew your subscription now while you have it in mind, and thereby please the Editor and ease your own conscience.

R. M. Barnes.

AD WORDS.

"My ad. produced results that were more than satisfactory.

D. I. Shepardson, Feb. 1, 1915.

"I received two answers from my ad before I got the magazine that it was first inserted in, pretty quick results. Speaks well for the Oologist as an exchange medium."

A. J. Potter.

GOOD WORDS.

December 12, 1914.

"I enjoy the paper very much and read it with great interest."

Wm. McLaren.

January 1, 1915.

"A good magazine for little money."

George Kamp.

January 1, 1915.

"I wish to congratulate you on the improvement on the Oologist since taking it over, it has become a real important publication for naturalists."

Stanley H. Jewett.

January 1, 1915.

"As for me I could not be without 'The Oologist,' I have had it so many years and it is steadily improving. You must be congratulated upon the last issue."

C. A. Hewlett.

January 3, 1915.

"I sure like to read the Oologist and get lots of information on nesting habits of the different birds."

Guy W. Day.

January 4, 1915.

"Allow me to express the pleasure I feel with the improvement of the Oologist since you undertook the publishing of the same." Chris Firth.

January 5, 1915.

"I always sit down and read the Oologist through as soon as it comes."
S. M. Burdick.

January 11, 1915.

"The last number contains illustrations which alone are worth the cost of that number."

John T. Parsons.

January 12, 1915.

"I have had nine or ten answers to my magazine advertisement in the Oologist, and would be glad to have you say for me how well it pays to advertise in that publication."

Lillian L. Beers.

January 17, 1915.

"You are giving us a mighty good paper for the money."

W. F. Nicholson.

Feb. 1st, 1915.

"A fine little paper and the cause of me becoming acquainted with some good fellows."

E. A. Sikken.

January 17, 1915.

"The Journal is worth \$1.00 and I should think many would be willing to pay that for it."

S. S. Dickey.

January 18, 1915.

"The 1914 Oologist was a dandy and I trust that 1915 will be as good."

Alex Walker.

January 24, 1915.

"I actually can't see how you get out such a high grade paper for such a small amount charged for subscriptions."

F. T. Carless.

January 25, 1915.

"I certainly have enjoyed and profited by the reading of your magazine."

Robert S. Bains.

January 27, 1915.

"I do not wish to miss a single number."

Ernest S. Norman.

January 29, 1915.

"You have a live little paper and we certainly get our money's worth."

Fred J. Dixon.

January, 1915.

"Your January number is a good one and very interesting."

Alfred L. Marshall.

February 1, 1915.

"I congratulate you upon the last number of the Oologist. It was the finest yet."

D. I. Shepardson.

Feb. 1, 1915.

"This is the best egg magazine that is published."

Caspar G. Burn.

"It is alright. We get full worth of our money."

F. T. Pember.

Feb. 6, 1915.

"If your paper continues to improve in 1915 as it has been in the past, you'll be charging us more than fifty cents per annum. Well, we should worry."

J. R. McLeod.

Feb. 17, 1915.

"I must say that the last few numbers were simply great and that it is growing better every month."

E. A. Stoner.

July 10, 1915.

"It seems to me that the Oologist is getting better all the time."

Fred Maltby.

July 17, 1915.

"A nature lover can't help but like the Oologist and we know that the Editor's heart and soul is in it which makes it better."

George L. Cook.

August 16, 1915.

"I always look forward to the coming of this little bird publication. It has them all beat a mile."

C. G. Hart.

Aug. 21, 1915.

"I would rather do without my eats than the Oologist."

Turner E. McMullen.

Aug. 25, 1915.

"Permit me to say at this time, I have thoroughly enjoyed each and every copy of your magazine, and always look forward to dates of issue."

J. H. Trumbull.

Aug. 28, 1915.

"I can't get along without the Oologist."

R. Spellum.

Aug. 30, 1915.

"My friends, Mr. Horace Green, and Mr. Donald Nicholson together with myself think the price of the Oologist ought to be \$1.00 a year. How many others, we would like to ask feel the same way."

Edw. S. Coombs.

Oct. 22, 1915.

"It is one of the best bird publications in the United States. It is 'alive' with valuable information."

Alfred Cookman.

THE OÖLOGIST.

BIRDS--NESTS--EGGS TAXIDERMISTRY

VOL. XXXII. No. 1. ALBION, N. Y., JAN. 15, 1915. WHOLE No. 330

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

TAKE NOTICE.

SUBSCRIPTION, 50 CENTS PER YEAR
Examine the number on the wrapper of your Oologist. It denotes the time your subscription expires. Remember we must be notified if you wish it discontinued and all arrearages must be paid. 329 your subscription expires with this issue. 317 your subscription expired with December issue 1912. Other expirations can be computed by intermediate numbers at the rate of one number per month.

Entered as second-class matter December 21, 1903, at the post office at Albion, N. Y., under the Act of Congress of March 3, 1879.

In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpeter Swan. R. M. Barnes. Lacon, Ill.

WANTED—Skins of N. A. Snipe, Plover, etc. in first class shape for mounting. Must be A 1. ARTHUR G. RUECKERT, 2252 N. Kostner Ave., Chicago, Ill. (1-p)

I have a few finely mounted birds on hand to exchange. Who wants them? First class taxidermy work done at lowest prices. LES-TER SPEER, Taxidermist, Bentonville, Ark. (1-p)

FOR EXCHANGE.—Fine skins of 273, 289a, 320, 477a, 501, 511a, 513, 549, 550, 575a, 703, 729, and others, for skins or eggs not in my collection. Send lists. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass. (3-14)

TRADE.—18 A. farm. Will take \$175 cash and \$150 in bird skins or eggs or both. If interested write me. W. G. SAVAGE, Delight, Ark. (1-p)

WANTED.—Skins or mounted specimen of Trumpeter Swan, Olor buccinator or notes and records of this species, or the location of specimens in museums or collections. HENRY K. COALE, Highland Park, Lake Co., Ill.

WANTED—Fine skins only of most Sandpipers. Offer fine sets of eggs, 300a, 412a, 466a, 529, 542a, 567, 584. H. MOUSLEY HATLEY, P. Q. (1-p)

FOR EXCHANGE—Two nicely mounted Western Horned Owls, and many first class sets for eggs of Birds of Prey. ERNEST S. NORMAN, Mulvihill, Manitoba. (1-p)

SKINS FOR EXCHANGE—51, 70, 77, 130, 151, 154, 190, 246, 248, 283a, 367, 478e, 511b. C. L. PHILLIPS, 5 W. Weir St., Taunton, Mass. (1-p)

Birds, mostly mounted; some skins. Will exchange for desired specimens, if first class. Send stamp and exchange lists promptly. A. RUSSELL SMITH, Edge Hill, Pa.

WANTED.—Bird skins, American or Foreign. Offer in exchange mounted bird skins and eggs in sets. Send lists. JESSE T. CRAVEN, 811 Roosevelt Ave., Detroit, Mich. (1-p)

FOR EXCHANGE.—Beautifully mounted R. T. Hummingbirds, Scarlet Tanager, Rose-breasted Grosbeak, and 50 varieties, for others or skins. What have you? Also skins, nests and eggs to trade. DR. J. P. BALL, 5001 Frankford Ave., Philadelphia, Pa. (4-p)

BIRDS

WANTED.—Rough Grouse, live adults or chicks or eggs for hatching. Send prices. J. D. KUSER, Bernardsville, N. J. (2-p)

WANTED.—One good fresh skin of an adult male Lady Amherst Pheasant. WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y. (1-p)

FOR EXCHANGE.—Bird skins, Animal skins and cleaned skulls; eggs in sets and named Coleoptera to exchange for stamps not in my collection. W. E. SNYDER, 309 DeClark St., Beaver Dam, Wis. (1-p)

SKINS.—646b, 652b, 653, 654a, 663a, 676, 681a, 681c, 681e, 682, 682L. Write C. L. PHILLIPS, 5 West Weir St., Taunton, Mass. (1-p)

FOR EXCHANGE.—Skins 381, 371, 372, 373, 2, 379. Will take a few baby turtles, also snake and lizard parts. 400 Pages Ditnas Reptile book, \$2.50. Closing out extra skins. H. W. AITKEN, 2020 Arch St., Philadelphia, Pa. (1-p)

Over 400 mounted birds, mammals and reptiles. Eggs in sets. Foreign and United States coins. Columbia stamps, a few sets of St. Louis Exposition unused. Book on raising skunks, 50c. Tanning process, Guinea Pigs. Oologist from about 1888. What can you offer? ALMON KIBBE, Mayville, N. Y. (1-p)

Have a number of very fine mounted Am. Woodcock. Will exchange for A I skins of hawks. Want skins of mounted Spoon-bill Sandpiper. K. W. KAHMANN, 2457 Lincoln Ave., Chicago, Ill.

Anyone wishing to exchange bird skins please send list and I will send my list of duplicates per return mail. J. A. WEBER, Palisades Park, N. J. (1-p)

WANTED.—A I Bird Skins also eggs in sets. Send list of what you have to exchange. EDW. E. ARMSTRONG, 207 N. Michigan Av., Chicago, Ill. (1-p)

WHO WANTS SOME CHOICE SKINS OF LOWER CALIFORNIA WATER AND GAME BIRDS? Skins of the best class. Very moderate prices. GEO. PRIESTLY, Garden Grove, Calif. (2-p)

EXCHANGE.—Live Wild Canada, Hutchins, White-fronted, and Snow Geese, Wild Ducks, and Pheasants for Egyptian Geese, Black, Brant, Mandarin and Wood Ducks, Quail and Hungarian Partridges. H. J. JAGER, Owatonia, Minn. (5-p)

WANTED.—Skins for mounting of female Wood Duck, Red-head Canvas-back Shoveler, Home or Monkey-faced Owl, Great Grey Burrowing, Pigmy or Elf Owl. Also Trap-door Spider, Farantula, Copper Head Snake Skins, Mansanedo Wood (from California). State prices and measurements in first letter. SAMUEL HUN-SINGER, Secor, Ill. (2-p)

WANTED.—Living healthy birds of the following species for aviary: Rose-breasted Grosbeak, Eastern and Western Evening Grosbeaks, Eastern and California Pine Grosbeaks, Eastern and Western Blue Grosbeaks, and Pyrrhuloxias. Expenses attendant upon capture of these birds, and fair remuneration will be paid. Write in advance in regard to state permits. Correspond with: F. W. HENSHAW, Redwood City, San Mateo County, California.

EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

FOR EXCHANGE.—Will collect specimens of wood or natural history work in general, for sets of eggs. Write to RALPH W. JACKSON, R. D. No. 1, Cambridge, Maryland.

WANTED.—Collecting gun and kodak. Offer Raptors in sets, including 329, 341, 345, 347a, 359. D. I. SHEPARDSON, 209 E. 37th St., Los Angeles, Cal. (1-p)

FOR EXCHANGE.—Farallone eggs with small holes; also 749, 726d and many others. Send your list. H. W. CARRIGER, 5185 Trask St., Fruitvale Sta., Oakland, Calif. (1-p)

FOR EXCHANGE.—Sets from the locality for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass. (1-p)

FOR EXCHANGE.—Medical Battery, two dry cells, good as new. Plate camera 4 x 5; some books. Thirty species of common birds eggs, first class sets for like sets. C. B. VANDERCOOK, Odin, Ill.

EXCHANGE.—A few sets of Red-shouldered and Cooper Hawks. Wanted, sets of 132, 136, 140, 141, 143, 146, 160; also 30, 30a, 32. C. G. HART, East Berlin, Conn. (1-p)

EGGS. Bulwer's Petrel, Iceland Gull, Curlew, Plovers, exchange for Osprey, Bartram Sandpiper, etc. Send lists. Also have some good sets of foreign for sale cheap. H. T. BOOTH, 8 Cranbury Road, Fulham, England.

Will purchase large hardwood drawer egg cabinet, also complete egg blowing outfit, used bird books, all in good condition. H. W. BRANDT, 7625 Lexington Ave., Cleveland Ohio. (1-p)

Will exchange for desirables of similar rarity, sets of A. O. U. 95, 114, 1, 81, 134, 295, 301, 302, 310, 327, 330, 351, 356, 389, 416, 417, 419, 639, 641, 654, 666, 677. THOMAS H. JACKSON, 304 N. Franklin St., West Chester, Pa.

Private collector wishes to exchange British Sea Birds' Eggs, also Indian, for American or others. CAPT. O. NICHOLLS, R. S. A., St. George, Bermuda. (1-p)

FOR EXCHANGE.—Nos. 191 1-3, 477 1-5, 488 2-5, 498 2-4, 501 1-5, 510 1-4, 581 1-4, 619 2-4, 705 1-5, 1-4, 721 1-5, 725 1-5, 761 1-2. I can use nearly everything. WALTER A. GOELITZ, 504 John St., Charpaign, Ill. (1-p)

I have for exchange, beautiful sets with nests, of Cairn's Warbler, Carolina Junco, and common sets from this section. Send list of what you can offer. H. H. BAILEY, Newport News, Va.

WANTED.—From original collector sets of eggs of Yellow-throated and Swainson's Warblers, Brown-headed Nuthatch, Aplomado Falcon, Bird Lore's in Vol. X (10). Cash or exchange. C. MILLS CASE, 7 Holcomb St., Hartford, Conn. (1-p)

EGGS, Continued.

WANTED.—A good set of Bald Eagle, Swallow-tailed Kite, Everglade Kite, Sharp-shinned Hawk, Gray Sea Eagle, Duck Hawk, Chuck-will's Widow, and Mexican Jacana. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. (3)

FOR EXCHANGE.—White Pelican, Cal. Gull, Baird's Cormorant, Avocat, Stilt, and many others, all first class with data. Send lists. J. LABARTHE, Thompson, Nevada. (3-p)

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I should like to hear from collectors who will exchange bird skins for first class sets of eggs such as 273, 329, 343, 393, 394c, 423, 461, 587, 598, 608, 617, 627, 659, 674, 676, 677, 725, 751. I want mostly common species, e. g., 3, 6, 7, 11, 13, 30, 32, 40, 51, 58, 69, 70, 74, 77, 104, 106, 129, 131, 132, 133, 139, 214, 263, 273, 314, 333, 337, 360, 375, 388, 390, 423, 428, 456, 465, 495, 506, 511b, 546, 598, and many others. S. S. DICKEY, Waynesburg, Pa. (1-p)

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THE OOLOGIST

into my office every month. I am one of those poor unfortunates which business keeps penned up and magazines such as yours are doing a great work in giving moments of relaxation from

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1914.

I congratulate you upon the great

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I enjoy the paper very much, and read it with great interest.—Wm. McLaren.

THE OOLOGIST

The paper is better than ever.—
Geo. D. Peck, Mar. 16, 1914.

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each issue.—E. W. Kelly, Mar. 18,
1914.

It is certainly better than ever be-
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ter, Apr. 6, 1914.

I would like to congratulate you on
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and still improving.—E. M. Kentwor-
thy, Apr. 17, 1914.

I congratulate you upon the fine ap-
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ing all the time. Keep up the good
work.—John Lewis Childs, June 15,
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Under your perfect management, the
Oologist to me, is the most interest-
ing and instructive bird magazine I
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M. Greenwood, Apr. 22, 1914.

My advertisement in your Oologist
is making good.—Dr. W. M. Tyler, July
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Please allow me to congratulate you
on the great success you have made in
handling the Oologist since you took
hold of it. The June number is ex-
tremely good, as well as the half tones
it contains. I only hope you will keep

on improving it and I think you ought
to go up in price as well, for it cer-
tainly is worth more. As an exchange
medium it can't be beaten, thus af-
fording collectors all over the country
a chance to secure material they other-
wise would never secure. Wishing you
success in the venture, I am yours very
truly, Harold H. Bailey, July 2, 1914.

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let on the subject to be had. Am en-
closing a little "ad" which I hope you
will please insert for me.—A. A.
Ruecke rt, Aug. 8, 1914.

I notice with surprise that my sub-
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time flies! I hasten to enclose \$1.00
for which please renew subscription
for two years. I don't want to miss
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ily." The perusal of your magazine
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A new edition of the Naturalist's Directory has just been published by S. E. Cassino, Salem, Mass. This directory is invaluable to naturalists since it is the means of bringing together students and collectors in all parts of the world through correspondence. The directory contains an alphabetical list of English speaking professional and amateur naturalists in all parts of the world, also a list of Scientific Societies and Periodicals. The price of the Directory is \$2.50 in Cloth Binding, and \$2.00 in Paper Binding. Sent postpaid. As only a limited edition has been printed it is advisable for any one wishing a copy to order at once.

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BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXII. No. 2. ALBION, N. Y., FEB. 15, 1915. WHOLE No. 331

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

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Entered as second-class matter December 21, 1903, at the post office at Albion, N. Y., under the Act of Congress of March 3, 1879.

In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpeter Swan. R. M. Barnes, Lacon, Ill.

WANTED—Skins of N. A. Snipe, Plover, etc. in first class shape for mounting. Must be A 1. ARTHUR G. RUECKERT, 2252 N. Kostner Ave., Chicago, Ill. (1-p)

I have a few finely mounted birds on hand to exchange. Who wants them? First class taxidermy work done at lowest prices. LES-TER SPEER, Taxidermist, Bentonville, Ark. (1-p)

FOR EXCHANGE.—Fine skins of 273, 289a, 320, 477a, 501, 511a, 513, 549, 550, 575a, 703, 729, and others, for skins or eggs not in my collection. Send lists. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass. (3-14)

TRADE.—18 A. farm. Will take \$175 cash and \$150 in bird skins or eggs or both. If interested write me. W. G. SAVAGE, Delight, Ark. (1-p)

WANTED.—Skins or mounted specimen of Trumpeter Swan. Olor buccinator or notes and records of this species, or the location of specimens in museums or collections. HENRY K. COALE, Highland Park, Lake Co., Ill.

WANTED—Fine skins only of most Sandpipers. Offer fine sets of eggs, 300a, 412a, 466a, 529, 542a, 567, 584. H. MOUSLEY HATLEY, P. O. (1-p)

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SKINS FOR EXCHANGE—51, 70, 77, 130, 151, 151, 190, 246, 248, 283a, 367, 478e, 511b. C. L. PHILLIPS, 5 W. Weir St., Taunton, Mass. (1-p)

Birds, mostly mounted; some skins. Will exchange for desired specimens, if first class. Send stamp and exchange lists promptly. A. RUSSELL SMITH, Edge Hill, Pa.

WANTED.—Bird skins, American or Foreign. Offer in exchange mounted bird skins and eggs in sets. Send lists. JESSE T. CRAVEN, 811 Roosevelt Ave., Detroit, Mich. (1-p)

FOR EXCHANGE.—Beautifully mounted R. T. Hummingbirds, Scarlet Tanager, Rose-breasted Grosbeak, and 50 varieties, for others or skins. What have you? Also skins, nests and eggs to trade. DR. J. P. BALL, 5001 Frankford Ave., Philadelphia, Pa. (4-p)

THE OOLOGIST

WANTED—I want male skins of 666-652b-68e, and sub-species of 550. I have eggs of 364. R. P. SHARPLES, West Chester, Pa. (1-p)

Anybody wishing bargains in first class skins, write at once. A. O. U. 375, 360, 373, 367, 368, 365, 378a, 373a, 380, 379, 379a, 373b, 373-2, 373c, 372, 371, 377, 373e, 352, 381, 20. Many duplicates, also mounted Museum specimens, Baby Turtles, Alligators, American Crocodiles, cheap. Also specimens of above in alcohol. Baby Logger-head, Sea Turtles, ready for mounting, 30c each. H. W. ATKEN, 43 S. 19th St., Philadelphia, Pa.

SKINS.—646b, 652b, 653, 654a, 663a, 676, 681a, 681c, 681e, 682, 682, 1. Write C. L. PHILLIPS, 5 West Weir St., Taunton, Mass. (1-p)

FOR EXCHANGE.—Skins 381, 371, 372, 373, 2, 379. Will take a few baby turtles, also snake and lizard parts, 400 Pages Ditnas Reptile book, \$2.50. Closing out extra skins. H. W. ATKEN, 2020 Arch St., Philadelphia, Pa. (1-p)

Over 400 mounted birds, mammals and reptiles. Eggs in sets. Foreign and United States coins. Columbia stamps, a few sets of St. Louis Exposition unused. Book on raising skunks, 50c. Tanning process, Guinea Pigs. Oologist from about 1888. What can you offer? ALMON KIBBE, Mayville, N. Y. (1-p)

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BELGIUM RELIEF FUND—I have for sale a set of Peale's Falcon, skin identified and in collection of Mr. Allen Brooks. These eggs are unique. What offer. C. U. GREEN, Care W. F. BURTON, St. Charles St., Victoria, B. C.

WANTED—Living healthy birds of the following species for aviary: Rose-breasted Grosbeak, Eastern and Western Evening Grosbeaks, Eastern and California Pine Grosbeaks, Eastern and Western Blue Grosbeaks, and Pyrrhuloxias. Expenses attendant upon capture of these birds, and fair remuneration will be paid. Write in advance in regard to state permits. Correspond with: F. W. HENSHAW, Redwood City, San Mateo County, California.

FOR EXCHANGE—Bird Skins. Want Hummingbirds only, mounted or skins nest and eggs of same. EARL HAMILTON, 400 Walnut St., Versailles, Pa.

WANTED—To hear from reliable collectors who have A-1 sets of Whooping Crane, Sandhill Crane, Pacific and Black-throated Loon to dispose of. JAMES B. CARTER, Waynesburg, Pa.

EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

TO EXCHANGE—For eggs in sets. Complete course of lessons in Taxidermy (Standard works). Game Chickens, Cocks and Pullets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE—Sets from this locality, for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

TO EXCHANGE—For eggs in sets; one 22 cal. rifle, good condition. Complete course in Taxidermy (N. W. Schoob), one E Flat Alto Horn. Can use many common sets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE—European and Asiatic bird eggs in sets with data for eggs of North American species needed for my collection. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR EXCHANGE—75 eggs, also sets 1-2-1-1 Mississippi Kite, personally collected complete data. All eggs first class. H. S. SOWERS, Brownell, Kansas.

FOR EXCHANGE—Will collect specimens of wood or natural history work in general, for sets of eggs. Write to RALPH W. JACKSON, R. D. No. 1, Cambridge, Maryland.

WANTED.—Collecting gun and kodak. Offer Raptors in sets, including 329, 341, 345, 347a, 359. D. I. SHEPARDSON, 209 E. 37th St., Los Angeles, Cal. (1-p)

FOR EXCHANGE.—Farallone eggs with small holes; also 749, 726d and many others. Send your list. H. W. CARRIGER, 5185 Trask St., Fruitvale Sta., Oakland, Calif. (1-p)

FOR EXCHANGE.—Sets from the locality for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass. (1-p)

EXCHANGE—A few sets of Red-shouldered and Cooper Hawks. Wanted, sets of 132, 136, 140, 141, 143, 146, 160; also 30, 30a, 32. C. G. HART, East Berlin, Conn. (1-p)

FOR EXCHANGE.—207 1-1-5-1-6; 343 2-2-2-4; 348 2-3-4-4; 349 1-1; 352 2-1; 355 3-1 3-5; 364 1-3 1-3; 416 1-2; 419 1-2; 533 1-4; 530a 1-4; 715 1-6. E. J. DARLINGTON, Wilmington, Del.

FOR EXCHANGE.—Medical Battery, two dry cells, good as new. Plate camera 4 x 5; some books. Thirty species of common birds eggs, first class sets for like sets. C. B. VANDERCOOK, Odlin, Ill.

EGGS, Continued.

EGGS. Bulwer's Petrel, Iceland Gull, Curlew, Plovers, exchange for Osprey, Bartram Sandpiper, etc. Send lists. Also have some good sets of foreign for sale cheap. H. T. BOOTH, 8 Cranbury Road, Fulham, England.

Will purchase large hardwood drawer egg cabinet, also complete egg blowing outfit, used bird books, all in good condition. H. W. BRANDT, 7625 Lexington Ave., Cleveland Ohio. (1-p)

Will exchange for desirables of similar rarity, sets of A. O. U. 95, 114.1, 81, 131, 295, 301, 302, 310, 327, 330, 354, 356, 389, 416, 417, 419, 639, 641, 654, 666, 677. THOMAS H. JACKSON, 304 N. Franklin St., West Chester, Pa.

WANTED.—A good set of Bald Eagle, Swallow-tailed Kite, Everglade Kite, Sharp-shinned Hawk, Gray Sea Eagle, Duck Hawk, Chuck-will's Widow, and Mexican Jacana. DR. M. T. CLECKLEY, 457 Greene St., Augusta, Ga. (3)

FOR EXCHANGE.—White Pelican, Cal. Gull, Baird's Cormorant, Avocet, Stilt, and many others, all first class with data. Send lists. J. LABARTHE, Thompson, Nevada. (3-p)

I should like to hear from collectors who will exchange bird skins for first class sets of eggs such as 273, 329, 343, 393, 394c, 423, 461, 587, 598, 608, 617, 627, 659, 674, 676, 677, 725, 751. I want mostly common species, e. g., 3, 6, 7, 11, 13, 30, 32, 40, 51, 58, 69, 70, 74, 77, 104, 106, 129, 131, 132, 133, 134, 214, 263, 273, 316, 333, 337, 360, 375, 388, 390, 423, 428, 456, 465, 495, 506, 511b, 546, 598, and many others. S. S. DICKEY, Waynesburg, Pa. (1-p)

FOR EXCHANGE.—Complete sets, original data and first class, of A. O. U. No. 1, 6, 11, 13, 16, 35, 49, 53, 54, 77, 80, 120, 194, 201, 202, 212, 219, 221, 264*, 269, 271, 329 (at 1 per egg), 333, 337, 377b, 339 and 348. Want original sets with complete data, and many of the very common ones can be used. Send list of anything you have and will try to do business with you. Absolutely guarantee every specimen to suit you. R. L. MORE, Box 608, Vernon, Texas.

I have for exchange many fine sets, personally taken, finely prepared, among which are: 6-18, 194b 1-5 1-6, 199 1-4, 218 1-8, 219 1-9, 228 1-4, 289b 1-14, 293 1-12, 295 1-13, 300b 1-14, 307 1-9, 310 1-14, 310c 1-15, 331 1-5, 333 1-4, 334a 1-3, 335 1-4, 1-5, 337a 1-3, Texas Red-shoulder 1-3, 1-4, 339 1-3, 340 1-2, 341 1-2, 342 1-3, 345 1-2, 347a 1-3, 368b 1-2, 373b 1-4. Send your lists and get my full list. E. F. POPE, Coahuesnil, Texas.

FOR EXCHANGE.—Fine sets Common Tern, Showy North and South American Butterflies in insect proof cases. Atlantic coast shells and curios. Wanted eggs in sets. Lists exchanged. KARL SQUIRES, 70 Moorland Ave., Edgewood, R. I. (1-p)

FOR EXCHANGE.—Personally Collected; 1, 3-4; 53 5-3; 54 3-3; 132 1-9; 135 1-7; 139 1-6; 141 1-8; 142 1-7; 167 1-6; 187 3-4; 194c 3-5; 197 3-4; 225 6-4; 226 3-4; 258a 1-4; 432 n-2; 436 n-2; 478c 2-5; 480 2-5; 492 2-5; 554 n-4; 560a n-3; 562 n-4; 583 n-4; 748a n-5; 749 n-6; 759a n-4. A. O. TREGANZA, 610 U. S. & T. Bldg., Salt Lake City, Utah. (1-p)

EGGS.—A collection to highest bidder. W. C. WOOD, 179 17th St., Detroit, Mich.

WANTED THE FOLLOWING SETS—Purple Sandpiper 2-4, American Bittern N-4, American Golden Plover N-4, Bonapartes Gull N-3, Greater Yellow-legs 1-4. Will give in exchange Sets Mounted birds and skins. Live Northern birds supplied. PORTAGE WILD ANIMAL CO., Portage La Prairie, Manitoba, Can. Box 223.

MISCELLANEOUS.

To exchange for stone relics several copies of Harpers Illustrated Weekly from 1860 to 1873. L. A. PARRE, Batavia, Ill.

WANTED—Indian Relics for cash or exchange. Also finely mounted specimen birds. DR. A. E. PAYNE, Riverhead, N. Y. (1-p)

WANTED.—Type and printer's supplies. Have Natural history, medical and other books, skins for mounting, mounted specimens, fishing tackle, shells, minerals, battery, massage machine. J. J. WIRZ, Taxidermist, Augusta, Ga. (1-p)

FOR SALE.—Cocoons of the Promethea and Cecropia Moths in lots as desired. Price five cents each, postpaid. L. S. KOHLER, Bloomfield, N. J. (1-p)

EXCHANGE.—Auto Strop Safety Razor (new) for the following sets: 1-27-37-54-104-106. PAHRMAN BROS., 1011 Fourth St., La Porte, Ind. (1-p)

FOR EXCHANGE.—Butterflies and moths for eggs in sets or others, many common ones wanted. Would like a copy of "The Butterflies of the West Coast." JOHN GRAVES, 1057 62nd St., Oakland, Cal. (1-p)

FOR SALE.—A fine fresh skin with skull of Badger for mounting. O. S. BIGGS, San Jose, Ill.

FOR EXCHANGE.—Beautiful cut gems for mounting to exchange for natural specimens. Correspondence solicited. (1-p)

WANTED AT ONCE.—A specimen of the Red Fox in fine winter fur. Also skin or mounted specimen of the Varying Hare or Snow Shoe Rabbit in brown summer fur. A pair of Bald Headed Eagles in the down is also desired. Address, stating price, DIRECTOR, THE CHICAGO ACADEMY OF SCIENCES, Lincoln Park, Chicago, Ill. (1)

FOR SALE OR EXCHANGE.—Collection of Sea and Fresh water Shells, 2000 species; collection of Minerals, 275 specimens; collection of Fossils, 250 specimens, 6 ft. mounted Alligator, 70 glass mounts, 216 specimens Moth and Butterflies, 2000 specimens Coleoptera, a large list of Curios; collection of old French letters and parchments, dated 1427 to 1800. Any or all of above for sale or exchange for eggs, skins, mounted birds, Indian relics, magazines or books. H. F. DUPREY, Dixon, Cal. [1-p]

For Collectors, a fine collection of specimens, all large and very fine, one Chnstolite Tourquoix Matrix, Toursonite Tourmaline, Californite, Kuzite, Semi Opal, Amazon Stone, Opal Wulfenite. Opals are very fine, will sell for \$5.00 cash with order. E. W. KELLY, Box 186, Seneca, Ill. (1-p)

Perfect, and well mounted specimens of North American moths and butterflies offered in exchange for North American bird skins. PHILIP LAURENT, 31 East Mt. Airy Ave., Philadelphia, Pa.

MISCELLANEOUS.

Make me offers on fine Sea Lion skins for mounting, also Sloth Bear from India. WIRZ, TAXIDERMIST, 1422 Gwinnett, St., Augusta, Ga.

WANTED—A high grade camera, 5x7 preferred. Offer in exchange fine sets, high grade Ithaca hammerless gun, any gauge, new from factory; or part cash. E. F. POPE, Colmesneil, Texas.

EXCHANGE—A nicely mounted specimen of a Ringtail Lemur, male, in good condition. Will exchange for Ornithological magazines and books, or good color plates, amounting to equal value. For description write, M. HOFMANN, 1434 Broadway, Brooklyn, N. Y. (1-p)

FOR SALE—One pair live Black Foxes No. 1 Grade Breeders, \$2000.00, Delivered. Martin \$75.00 and Fishers \$125.00 a pair. PORTAGE WILD ANIMAL CO., Portage La Prairie, Manitoba, Box 223.

Bird Skins, animal skins and cleaned skulls eggs in sets and named Coleoptera to exchange for stamps not in my collection. W. E. SNYDER, 309 DeClark St., Beaver, Dam Wis.

Live cocoons of *Caligula*, *cachara*, from India, and Moths such *A. ctias*, *scelene*, *Antheraea pernyi* in exchange for cocoons of *Samia*, *Glovers*, also orders taken for fertile eggs of *Citheronia*, *regalis*, 50 for \$1.00 and many other native and foreign eggs. A. J. POTTER, East Killingly, Conn.

Bird Books

WANTED.—No. 9 of Vol. XXVI, of The Oologist. Any of first volume of Bird Lore, complete or single numbers. Have Vol. IX of The Oologist to sell. GEO. W. H. VOS BURGH, Columbus, Wis. [1-p]

FOR EXCHANGE.—For cash, to best offer Newman's British Moths and Newman's British Butterflies. Condition good. Inquiries answered. CHRIS FIRTH, Durham, Ont., Canada. [1-p]

WANTED—Ornithologist and Oologist Vol. 1-5; Osprey Vol. 1, 2, 3; Bulletin Cooper Club, Vol. 1, 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

"We had eleven replies to the advertisement for the magazines in The Oologist, and I disposed of my magazines, all going in a little less than a month". LILLIAN L. BEERS.

WANTED—Volume II of The Auk, either bound or unbound for which I offer cash or other ornithological works in exchange. W. OTTO EMERSON, Palm Cottage, R. F. D. Haywards, Calif.

WANTED FOR CASH Life Histories of North American Birds by Bendire, State price. J. C. HALL, 1420 Marlowe Ave., Lakewood, Ohio.

WANTED—Bull, Cooper Orn. Club (Condor) Vol. I No. 3. Will pay \$4.00 in original covers. DR. W. M. TYLER, Lexington, Mass. (1-p)

Fine specimens of the beautiful Abert's Squirrel, and other mammals, for mounting Will exchange for books on natural history if in good condition. J. STOCKLY LIGON, Chloride, N. Mex. (1-p)

WANTED—An Ornithology Vol. VI; Oologist, Vols. 26, 27, 28; Osprey, Vols. I and III (All complete). State lowest cash price. Have many odd numbers of Bird magazines for exchange; also several books by Wm. J. Long. List for a stamp. ROBT. W. GLENN, Rm. 107, Penna. Sta., Pittsburg, Pa.

WANTED FOR CASH.—Condor Vol. 8 complete; Vol. 9 Nos. 1, 4, 6; Vol. 10, No. 2; Bird Lore, Vol. 7, No. 1; Vol. 3, Nos. 1, 2, 3; Vol. 2, Nos. 2, 3; Vol. 1, except No. 1. J. L. SLOANAKER, Palisades, Colo. (1-p)

FOR EXCHANGE.—National Geographic magazines for good sets of any birds of prey. Write, stating what you have. S. V. WHARRAM, Austinburg, O. (1-p)

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals [mostly Ornithological] to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. (2-p)

FOR EXCHANGE.—Back numbers Oologist, Osprey, American Ornithology, Museum, etc. Also first class sets to exchange for desirable postage stamps. GEORGE D. FRENCH, Ivoryton, Conn. (1-p)

WANTED.—O. & O. of Mass., Vol. X and XI; The Museum, Vol. IV, Nos. 8, 9, 10, 11, 12; Vol. V Nos. 1, 7, 11; Vol. VI, Nos. 1, 2, 3; Bird Lore, Vol. XI, Nos. 1, 5. The Taxidermist of Medina, Ohio, Vol. 1, Nos. 1, 2. CHAS. W. TINDALL, Independence, Mo. (1-p)

WANTED.—National Geographic Magazine, Vols I to 14 inc.; Guide to Nature, Vol. II; odd numbers of American Museum Journal; also Zoological Society Bulletins, original cover; good condition; state price. CHAS. O. TROWBRIDGE, Station A, Framingham, Mass.

WANTED.—Numbers 1 and 2 of Vol. 15; Bird Lore. State price. For cash or exchange. J. THOMPSON, Cold Brook, N. Y.

My ad in the October Oologist brought 11 letters to my wants for eggs and magazines. C. M. CASE.

WANTED.—Coues Key N. Am. Birds, fifth edition; back numbers of Condor, Auk and Bird Lore, A. O. U. Check List. ALBERT LANO, Fayetteville, Ark. (1-p)

FOR EXCHANGE.—First class sets with data for back numbers of the Auk, Bird Lore or Condor. E. E. JOHNSON, Hebron, Maine, R. R. 1.

WANTED.—Ornithologist and Oologist Vol. 1-5, Osprey Vol. No. 2 and 4 Bull, Cooper Club Vol. 1 No. 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass. 10-14

FOR EXCHANGE.—Three sets of "THE BIRDS OF WASHINGTON" (two vol., 1030 pages, 375 illustrations), Original Edition, full Morocco binding, at \$20 each. Will take choice eggs in sets at full rates. Send list W. LEON DAWSON, Santa Barbara, Cal.

THE OOLOGIST

This is what the Bird Men Think of The Oologist.

"You certainly are getting out a dandy magazine now; it seems to get better with each number."—F. T. Corless, Jan. 24, 1913.

"I can't afford to miss a single issue."—Ralph W. Jackson, Jan. 21, 1913.

"Let me have January number if it is out as I sure miss not getting it on time. Look for it with more eagerness than all the rest of the Journals put together."—Oscar E. Baynard, January 24, 1913.

"All success to The Oologist and my heartiest congratulations for the splendid improvement the paper has made under your guidance."—Richard C. Harlow, Jan. 24, 1913.

"I have secured you a new subscriber to the best bird magazine in the country."—F. R. Decker, Jan. 21, 1913

"I have been a subscriber to The Oologist for only one year, and I wish I had begun my subscription years ago, as it is without doubt the best little publication I have ever seen."—J. R. McLeod, Jan. 13, 1913.

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"Its descriptions are truer to life of western birds than any other publica-

tion that we get."—Wm. S. Van Voris, Jan. 28.

"I enjoy this magazine and do not want to miss any of the numbers."—G. E. Osterhout, Jan. 23.

"I am well pleased with the magazine in every way, and wish you increasing success."—James A. Dohback, Feb. 10.

"I have been a subscriber to The Oologist for two years and think it a very fine publication. In fact it is the only thing of its kind that I have ever seen."—Alan S. Armstrong, Feb. 15.

As I have often said before and now repeat, your medium is the best advertising and instructive periodical that appears on my desk each month and I look forward to the fifteenth of each month for its coming, as there is always something bright and breezy and up to the minute in its pages which is worth many times the price of a year's subscription.—Louis S. Kohler, Dec. 13, 1913.

I have enclosed the fifty cents of my subscription to the "Oologist" for 1914. I would be lost without the magazine now.—Miller T. Mercer, Dec. 21, 1913.

I desire to compliment you upon the excellence of the publication.—Dr. Joseph Ball, Dec. 22, 1913.

We think a great deal of the Oologist and are always looking for the next issue.—Cecil Brown, Dec. 24, 1913.

THE OOLOGIST

I am more than pleased with your paper.—Ralph W. Jackson, Dec. 27, 1913.

I must say your magazine is very good and I enjoy the reading very much.—Alfred L. Marshall, Dec. 30, 1913.

Wishing you a Happy New Year and many, many years for the only bird egg medium of exchange.—Rolla F. Lozier, Jan. 1, 1914.

The whole year's issue is such an improvement over the old issues, I can not help but compliment you on it and trust the following year is as successful.—H. H. Bailey, Jan. 1, 1914.

Glad to note our little paper is gaining.—W. G. Savage, Jan. 2, 1914.

The Oologist improves every year.—E. J. Wheeler, Jan. 7, 1914.

I want the Oologist all the time.—Wilson Tout, Jan. 14, 1914.

Have taken it so long would be lost without it.—F. A. W. Dean, Jan. 14, 1914.

I certainly think the magazine has improved a lot.—Norman Haultain, Jan. 16, 1914.

Your paper is a "Jim Dandy" and I would not be without it for three times its price.—Carl F. Wright, Jan. 20, 1914.

Your little paper is very interesting and a welcome visitor each month.—Albert J. Richards, Jan. 21, 1914.

I think it is a very fine magazine and I am always glad when it comes—Frank Esplan, Jan. 27, 1914.

I wish you a very prosperous New Year and increased circulation to your magazine which is constantly improving.—Fred'k J. Dixon, Jan. 28, 1914.

Kindly cut my "Ad" out of the Oologist. I secured the skins within ten days after the January issue came to hand.—John G. Tyler.

I think the Oologist has improved much lately and you deserve lots of credit for your hard work.—Joseph Farker Nonis, Jr., Feb. 8, 1914.

I like the Oologist very much.—James O. Johnson, Feb. 8, 1914.

We cannot be without this publication.—Pahrman Bros., Feb. 9, 1914.

I have been getting this Bird Magazine for nearly 25 years and must say that I have enjoyed every number received in all those years. I think the Oologist is better now than it has been in several years. All bird lovers should receive it.—L. Ernest Morceau, Feb. 22, 1914.

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Let me congratulate you in regard to the little publication, it is certainly a world advertiser.—Franklin J. Smith, Mar. 14, 1914.

THE OOLOGIST

I notice with surprise that my subscription has already expired. How time flies! I hasten to enclose \$1.00 for which please renew subscription for two years. I don't want to miss any of the numbers now that, fortunately, I am a member of your "family." The perusal of your magazine gives me such pleasure; it is like the grateful breath of Nature which wafts into my office every month. I am one of those poor unfortunates which business keeps penned up and magazines such as yours are doing a great work in giving moments of relaxation from the worries all round about us. Your paper enables me to take a trip all over the beautiful country without the necessity of leaving home and losing time from other things, and to say that I enjoy the visits of "The Oologist" puts it very mildly.—H. M. Heyde, Nov. 21, 1914.

The Oologist, like good wine, is improving with age.—John E. Thayer, Dec. 24, 1915.

I can't be without the little magazine.—Miller T. Mercer.
1914.

I congratulate you upon the great

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I enjoy the paper very much, and read it with great interest.—Wm. McLaren.

THE OOLOGIST

The paper is better than ever.—
Geo. D. Peck, Mar. 16, 1914.

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each issue.—E. W. Kelly, Mar. 18,
1914.

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fore.—E. M. Kenworthy, Mar. 19, 1914.

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home monthly, but the Oologist is by
far the most interesting.—James Car-
ter, Apr. 6, 1914.

I would like to congratulate you on
the Oologist. It is better than ever
and still improving.—E. M. Kentwor-
thy, Apr. 17, 1914.

I congratulate you upon the fine ap-
pearance of the Oologist. It is improv-
ing all the time. Keep up the good
work.—John Lewis Childs, June 15,
1914.

Under your perfect management, the
Oologist to me, is the most interest-
ing and instructive bird magazine I
ever had the pleasure of reading.—O.
M. Greenwood, Apr. 22, 1914.

My advertisement in your Oologist
is making good.—Dr. W. M. Tyler, July
15, 1914.

Please allow me to congratulate you
on the great success you have made in
handling the Oologist since you took
hold of it. The June number is ex-
tremely good, as well as the half tones
it contains. I only hope you will keep

on improving it and I think you ought
to go up in price as well, for it cer-
tainly is worth more. As an exchange
medium it can't be beaten, thus af-
fording collectors all over the country
a chance to secure material they other-
wise would never secure. Wishing you
success in the venture, I am yours very
truly, Harold H. Bailey, July 2, 1914.

Due in large measure to far reaching
advertisement in the Oologist, I have
filled my set 7 Birdlore.—Winsor M.
Tyler, M.D., July, 1914.

Please discontinue my ad in the
Oologist as it certainly has brought me
the right results and thanking you
very much.—Woodruff Yeates, July,

Your Oologist arrives regularly and
is always welcome and every word is
devoured. I think it is the finest book-
let on the subject to be had. Am en-
closing a little "ad" which I hope you
will please insert for me.—A. A.
Ruecke rt, Aug. 8, 1914.

The December issue came yester-
day and am greatly pleased with it—
the longer it comes the better it gets.
—Ralph W. Jackson, Dec. 25, 1914.

The Oologist is a constant delight
to all students of oology and I would
suggest that you double the price of
subscriptions.—D. E. Olson, Dec. 24,
1914.

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I have the following back numbers of various Natural History and Ornithological magazines for sale which will be sold cheap. If any of these are wanted for filling files, write me for prices, as I am sure some of them will not last long.

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- AMERICAN NATURALIST, Vol. 9, No. 5.
- AMERICAN ORNITHOLOGY, Vol. 1 No. 1; Vol. 2 No. 1-4-6; Vol. 4, No. 1; Vol. 5, No. 4.
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- BIRD NEWS, Vol. 1 No. 2.
- THE BITTERN (Cedar Rapids, Ia.) Vol. 1 No. 1.
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- BOSTON ZOOLOGICAL SOCIETY QUARTERLY JOURNAL, Vol. 1 No. 3; Vol. 2 No. 2.
- BROOKLYN ENTOMOLOGICAL SOCIETY, Vol. 1 No. 6, Oct. 1878.
- BULLETIN MICHIGAN ORNITHOLOGICAL CLUB, Vol. 1 No. 3-4;
- BULLETIN NUTTALL ORNITHOLOGICAL CLUB, Vol. 2 No. 1.
- CANADA NATURALIST SCIENCE NEWS, Vol. 1 No. 1.
- COLLECTOR'S MONTHLY, (London, England), Jan. 1894, No. 1.
- COLLECTOR'S MONTHLY, Vol. 2 No. 4-5.
- STORMY PETREL, Vol. 1 No. 5.
- THE COMMON SENSE, Vol. 2 No. 2.
- CONCHOLOGIST'S EXCHANGE, Vol. 2 No. 3.
- EXCHANGE BULLETIN, Vol. 1 No. 2.
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- HOOSIER NATURALIST, Vol. 2 No. 6.
- THE HUMMER, Vol. 1 No. 5-6.
- INTERNATIONAL NATURALIST, Vol. 2 No. 5.
- JOURNAL OF THE MAINE ORNITHOLOGICAL SOCIETY, Vol. 7 No. 1-4; Vol. 8 No. 3-4; Vol. 9 No. 2.

THE OOLOGIST

- MAINE ORNITHOLOGIST & OOLOGIST, Vol. 1 No. 1.
- MINERALS, Vol. 1 No. 1.
- THE MUSEUM, Vol. 1 No. 2; Vol. 3 No. 3; Vol. 4 No. 1.
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- THE NATURALIST (Oregon City, Ore.) Vol. 1 No. 12.
- NATURALIST & COLLECTOR, Vol. 1 No. 3.
- THE NAUTILUS, Vol. 6 No. 1.
- THE NIDIOLOGIST, Vol. 2 No. 4-12.
- THE OBSERVER, Vol. 5 No. 1; Vol. 6 No. 6.
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- THE OOLOGIST'S JOURNAL, Vol. 2 No. 2.
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Four sets each: 8, 31, 40a, 42.1, 52, 89, 112, 213, 272, 312, 319, 328, 343 4-4, 348 4-4, 377a, 391, 398, 466a, 183, 498c, 517a, 581d, 581e, 591, 622a, 627a, 637 4-7, 652, 759b.

Besides the foregoing I need many other species. Send on your entire list of duplicates. For never before was an opportunity like this offered and many that I have will go very quickly, as of some I have only a few sets.

R. MAGOON BARNES, Lacon, Ill.

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXII. No. 4. ALBION, N. Y., APR. 15, 1915. WHOLE No. 333

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

TAKE NOTICE.

SUBSCRIPTION, 50 CENTS PER YEAR

Examine the number on the wrapper of your Oologist. It denotes the time your subscription expires. Remember we must be notified if you wish it discontinued and all arrearages must be paid. 333 your subscription expires with this issue. 317 your subscription expired with December issue 1913. Other expirations can be computed by intermediate numbers at the rate of one number per month.

Entered as second-class matter December 21, 1903, at the post office at Albion, N. Y., under the Act of Congress of March 3, 1879.

In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpet-er Swan. R. M. Barnes, Lacon, Ill.

WANTED—Skins of N. A. Snipe, Plover, etc. in first class shape for mounting. Must be A. I. ARTHUR G. RUECKERT, 2252 N. Kostner Ave., Chicago, Ill. (1-p)

I have a few finely mounted birds on hand to exchange. Who wants them? First class taxidermy work done at lowest prices. LES-TER SPEER, Taxidermist, Bentonville, Ark. (1-p)

WILL EXCHANGE.—Small collection of Idaho bird skins for long focus 4 x 5 folding plate camera box with case and extra holders. HENRY J. RUST, Coeur D'Alene, Idaho, Box 683. (1-p)

TRADE.—18 A. farm. Will take \$175 cash and \$150 in bird skins or eggs or both. If interested write me. W. G. SAVAGE, Delight, Ark. (1-p)

EXCHANGE.—Five well drawn original sketches of birds and animals in attractive positions. Also nicely mounted Starling and a Red Squirrel. Want books or magazines on Ornithological or natural history subjects. M. HOFMANN, 1434 Broadway, Brooklyn, N. Y. (1-p)

WANTED to exchange skin or specimens of birds mounted of the East for specimens of Western States. WINCHESTER NATURAL HISTORY MUSEUM, Winchester, N. H.

TROPICAL BIRDS.—Anyone interested in Central American material, communicate with E. O. EHRLHART, Box 193, Jonnsonburg, Pa. (1-p)

WANTED—Fine skins only of most Sand-pipers. Offer fine sets of eggs, 300a, 412a, 466a, 29, 542a, 567, 584. H. MOUSLEY HATLEY, P. Q. (1-p)

WANTED.—Bird skins, American or Foreign. Offer in exchange mounted bird skins and eggs in sets. Send lists. JESSE T. CRAVEN, 811 Roosevelt Ave., Detroit, Mich. (1-p)

I want to exchange for bird skins of 218-226-231-232-292-293-294-295 301-521-443-471. D. V. HEMBREE, Roswell, Ga. (1-p)

FOR EXCHANGE.—Beautifully mounted R. T. Hummingbirds, Scarlet Tanager, Rose-breasted Grosbeak, and 50 varieties, for others or skins. What have you? Also skins, nests and eggs to trade. DR. J. P. BALL, 5001 Frankford Ave., Philadelphia, Pa. (4-p)

WANTED—I want male skins of 666-652b-681e, and sub-species of 550. I have eggs of 364. R. P. SHARPLES, West Chester, Pa. (1-p)

Birds, mostly mounted; some skins. Will exchange for desired specimens, if first class. Send stamp and exchange lists promptly. A. RUSSELL SMITH, Edge Hill, Pa.

WANTED.—A skin of a Cockatoo that is in good condition. Please name price for same. Butterflies and Moths exchanged and bought. Please send list. CASPAR G. BURN, Oxford, Pa. (1-p)

Over 400 mounted birds, mammals and reptiles. Eggs in sets. Foreign and United States coins. Columbia stamps, a few sets of St. Louis Exposition unused. Book on raising skunks, 50c. Tanning process, Guinea Pigs. Oologist from about 1888. What can you offer? ALMON KIBBE, Mayville, N. Y. (1-p)

Have a number of very fine mounted Am. Woodcock. Will exchange for A 1 skins of hawks. Want skins of mounted Spoon-bill Sandpiper. K. W. KAHMANN, 2457 Lincoln Ave., Chicago, Ill.

Anyone wishing to exchange bird skins please send list and I will send my list of duplicates per return mail. J. A. WEBER, Palisades Park, N. J. (1-p)

WANTED—A 1 Bird Skins also eggs in sets. Send list of what you have to exchange. EDW. E. ARMSTRONG, 297 N. Michigan Av., Chicago, Ill. (1-p)

WHO WANTS SOME CHOICE SKINS OF LOWER CALIFORNIA WATER AND GAME BIRDS? Skins of the best class. Very moderate prices. GEO. PRIESTLY, Garden Grove, Calif. (2-p)

EXCHANGE—Live Wild Canada, Hutchins, White-fronted, and Snow Geese, Wild Ducks, and Pheasants for Egyptian Geese, Black, Brant, Mandarin and Wood Ducks, Quail and Hungarian Partridges. H. J. JAGER, Owatoma, Minn. (5-p)

BELGIUM RELIEF FUND—I have for sale a set of Peale's Falcon, skin identified and in collection of Mr. Allen Brooks. These eggs are unique. What offer. C. U. GREEN, Care W. F. BURTON, St. Charles St., Victoria, B. C.

WANTED—Living healthy birds of the following species for aviary: Rose-breasted Grosbeak, Eastern and Western Evening Grosbeaks, Eastern and California Pine Grosbeaks, Eastern and Western Blue Grosbeaks, and Pyrrhuloxias. Expenses attendant upon capture of these birds, and fair remuneration will be paid. Write in advance in regard to state permits. Correspond with: F. W. HENSHAW, Redwood City, San Mateo County, California.

FOR EXCHANGE—Bird Skins. Want Hummingbirds only, mounted or skins, nest and eggs of same. EARL HAMILTON, 400 Walnut St., Versailles, Pa.

It is a fine little magazine and I would not be without it.

A. C. Bent.

EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

WANTED—To hear from reliable collectors who have A-1 sets of Whooping Crane, Sandhill Crane, Pacific and Black-throated Loon to dispose of. JAMES B. CARTER, Waynesburg, Pa.

FOR EXCHANGE.—A few old copper coins for sets of birds of prey. Write what you have. S. V. WHARRAM, Austinburg, O. (1-p)

TO EXCHANGE—For eggs in sets. Complete course of lessons in Taxidermy (Standard works). Game Chickens, Cocks and Pullets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE—Sets from this locality, for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

TO EXCHANGE—For eggs in sets; one 22 cal. rifle, good condition. Complete course in Taxidermy (N. W. School), one E Flat Auto Horn. Can use many common sets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE—European and Asiatic bird eggs in sets with data for eggs of North American species needed for my collection C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR EXCHANGE—75 eggs, also sets 1-2-1-1 Mississippi Kite, personally collected complete data. All eggs first class. H. S. SOWERS, Brownell, Kansas.

WANTED.—Collecting gun and kodak. Offer Rapters in sets, including 329, 341, 345, 347a, 359. D. L. SHEPARDSON, 209 E. 37th St., Los Angeles, Cal. (1-p)

FOR EXCHANGE.—Farallone eggs with small holes; also 749, 726d and many others. Send your list. H. W. CARRIGER, 5185 Trask St., Fruitvale Sta., Oakland, Calif. (1-p)

FOR EXCHANGE.—Sets from the locality for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass. (1-p)

EXCHANGE—A few sets of Red-shouldered and Cooper Hawks. Wanted, sets of 132, 136, 140, 141, 143, 146, 160; also 30, 30a, 32. C. G. HART, East Berlin, Conn. (1-p)

FOR EXCHANGE.—The following full sets: 1-13-16-77-81-86-117-118-141-188-190-194-197-201-202-203-206-208-211-218-219-225-226-228-230-261-263-264-300-309-325-326-339-331-333-337-339-339b-348-355-359-360-362-364-365-366-367-373-375-375d-385-390-406-412-417-420 and Panguin. Please send your list. OTTOMAR REINECKE, 400 Elm St., Buffalo, N. Y. (1-p)

Wanted.—One nicely mounted adult each A. O. U. numbers 9-80-141-139-171a-169-199-211-233-241-250-260-269-275-277-277a-286-304-311-312-348-356-377a-419-416-480-482-484-487. W. E. SNEYDER Beaver Dam, Wis. (1-p)

EGGS, Continued.

WANTED.—Choice sets of numbers 10-131-204-215-352a-372-405 and several warblers. Also common kinds 339-360-540b-542a-546a-537a. Also 328 and 332. Satisfactory remuneration. Old correspondents please write. A. E. PRICE, Grant Park, Ill.

EGGS. Bulwer's Petrel, Iceland Gull, Curlew, Plovers, exchange for Osprey, Bartram Sandpiper, etc. Send lists. Also have some good sets of foreign for sale cheap. H. T. BOOTH, 8 Cranbury Road, Fulham, England.

Will purchase large hardwood drawer egg cabinet, also complete egg blowing outfit, used bird books, all in good condition. H. W. BRANDT, 7625 Lexington Ave., Cleveland Ohio. (1-p)

Will exchange for desirables of similar rarity, sets of A. O. U. 95, 114.1, 81, 134, 295, 301, 302, 310, 327, 330, 354, 356, 389, 416, 417, 419, 639, 641, 654, 666, 677. THOMAS H. JACKSON, 304 N. Franklin St., West Chester, Pa.

FOR EXCHANGE.—White Pelican, Cal. Gull, Baird's Cormorant, Avocat, Stilt, and many others, all first class with data. Send lists. J. LABARTHE, Thompson, Nevada. (3-p)

I should like to hear from collectors who will exchange bird skins for first class sets of eggs such as 273, 329, 343, 303, 394c, 423, 461, 587, 598, 608, 617, 627, 659, 674, 676, 677, 725, 751. I want mostly common species, e. g., 3, 6, 7, 11, 13, 30, 32, 40, 51, 58, 69, 70, 74, 77, 104, 106, 129, 131, 132, 133, 139, 214, 263, 273, 316, 333, 337, 360, 375, 388, 390, 423, 428, 456, 465, 495, 506, 511b, 546, 598, and many others. S. S. DICKKEY, Waynesburg, Pa. (1-p)

FOR EXCHANGE.—Complete sets, original datas and first class, of A. O. U. No. 1, 6, 11, 13, 16, 35, 49, 53, 54, 77, 80, 120, 194, 201, 202, 212, 219, 221, 264*, 269, 271, 329 (at \$1 per egg), 333, 337, 370, 339 and 348. Want original sets with complete data, and many of the very common ones can be used. Send list of anything you have and will try to do business with you. Absolutely guarantee every specimen to suit you. R. L. MOREE, Box 608, Vernon, Texas.

I have for exchange many fine sets, personally taken, finely prepared, among which are: 6 1-8, 194b 1-5 1-6, 199 1-4, 218 1-8, 219 1-9, 228 1-4, 289b 1-14, 293 1-12, 295 1-13, 300b 1-14, 307 1-9, 310 1-14, 310c 1-15, 331 1-5, 333 1-4, 334a 1-3, 335 1-4, 1-5, 337a 1-3, Texas Red-shoulder 1-3, 1-4, 339 1-3, 340 1-2, 341 1-2, 1-3, 342 1-3, 345 1-2, 347a 1-3, 368b 1-2, 373b 1-4. Send your lists and get my full list. E. F. POPE, Colmesneil, Texas.

FOR EXCHANGE.—Fine sets Common Tern, Showy North and South American Butterflies in insect proof cases. Atlantic coast shells and curios. Wanted eggs in sets. Lists exchanged. KARL SQUIRES, 70 Moorland Ave., Edgewood, R. I. (1-p)

FOR EXCHANGE.—Personally Collected; 1, 3-4; 53 5-3; 54 3-3; 132 1-9; 135 1-7; 139 1-6; 141 1-8; 142 1-7; 167 1-6; 187 3-4; 194c 3-5; 197 3-4; 225 6-4; 226 3-4; 258a 1-4; 432 n-2; 436 n-2; 478c 2-5; 480 2-5; 492 2-5; 559a n-4; 560a n-3; 562 n-4; 583 n-4; 748a n-5; 749 n-6; 754 n-4. A. O. TREGANZA, 610 U. S. & T. Bldg., Salt Lake City, Utah. (1-p)

EGGS.—A collection to highest bidder. W. C. WOOD, 179 17th St., Detroit, Mich.

ON SALE.—Good twelve Gauge, Breech loading shot gun, reloading tools; 32 Gauge Auxillar Barrel tools, shells, (no Extractor); five dollars cash ten dollars exchange (eggs) net. Buffalo bones (guaranteed) seven cents to sixty; one skull (no horns) \$1.60, net. Porcupine quills, seven cents per dozen. Others up to forty cents, stamps, over forty cents, postal order. KALE THOMPSON, Box 175, Irving, Kansas. (1-p)

WANTED THE FOLLOWING SETS.—Purple Sandpiper 2-4, American Bittern N-4 American Golden Plover N-4, Bonapartes Gull N-3, Greater Yellow-legs 1-4. Will give in exchange Sets Mounted birds and skins, Live Northern Birds supplied. PORTAGE WILD ANIMAL CO., Portage La Prairie, Manitoba, Can. Box 223.

MISCELLANEOUS.

To exchange for stone relics several copies of Harpers Illustrated Weekly from 1860 to 1873. L. A. PARRE, Batavia, Ill.

WANTED.—Indian Relics for cash or exchange. Also finely mounted specimens birds. DR. A. E. PAYNE, Riverhead, N. Y. (1-p)

WANTED.—Type and printer's supplies. Have Natural history, medical and other books, skins for mounting, mounted specimens, fishing tackle, shells, minerals, battery, massage machine. J. J. WIRZ, Taxidermist, Augusta, Ga. (1-p)

FOR SALE.—Good substantial bird houses for Wren, Blue Birds, etc. Postal paid, for 50 cents. R. B. KIDDER, Columbus, Wis.

WANTED.—A pair of calipers marked in hundredths and any copies of the "Iowa Ornithologist." Also have a few common sets to exchange. EMERSON STONER, 432-38th St., Oakland, Calif. (1-p)

FOR EXCHANGE.—Butterflies and moths for eggs in sets or others, many common ones wanted. Would like a copy of "The Butterflies of the West Coast." JOHN GRAVES, 1057 62nd St., Oakland, Cal. (1-p)

WANTED.—To correspond with parties in Arizona and New Mexico who would collect Beetles for me for cash or exchange. W. E. SNYDER, Beaver Dam, Wis. (1-p)

FOR SALE.—I have a fine line of arrows and spears from Grime County, Texas. Send \$1.00 for a dozen perfect arrows. GEORGE E. DOERGE, Navasota, Texas, Box 484. (1-p)

WANTED AT ONCE.—A specimen of the Red Fox in fine winter fur. Also skin or mounted specimen of the Varying Hare or Snow Shoe Rabbit in brown summer fur. A pair of Bald Headed Eagles in the down is also desired. Address, stating price. DIRECTOR, THE CHICAGO ACADEMY OF SCIENCES, Lincoln Park, Chicago, Ill. (1-p)

FOR SALE OR EXCHANGE.—Collection of Sea and Fresh water Shells, 2000 species; collection of Minerals, 275 specimens; collection of Fossils, 250 specimens, 6 ft. mounted Alligator, 70 glass mounts, 216 specimens Moth and Butterflies, 2000 specimens Coleoptera, a large list of Curios; collection of old French letters and parchments, dated 1427 to 1800. Any or all of above for sale or exchange for eggs, skins, mounted birds, Indian relics, magazines or books. H. F. DUPREY, Dixon, Cal. (1-p)

MISCELLANEOUS.

Perfect, and well mounted specimens of North American moths and butterflies offered in exchange for North American bird skins. PHILIP LAURENT, 31 East Mt. Airy Ave., Philadelphia, Pa.

Brazilian Beetles and small showy shells wanted. Will give skin of Snowy Owl, eggs, butterflies or cash. GEORGE ROSSITER, 52 Tiverton Ave., Toronto, Canada. (1-p)

FOR EXCHANGE.—Alligator eggs, also Limpkin and lather back turtle eggs. NAT. P. FRY, Eureka, Marion Co., Florida. (1-p)

FOR SALE AND EXCHANGE.—Live Snakes, Lizards, Baby Turtles, also general line of Florida insects. NAT. P. FRY, Eureka, Marion County, Florida. (1-p)

For Collectors, a fine collection of specimens, all large and very fine, one Chnstolite Tourquoix Matrix, Toursonite Tourmaline, Californite, Kuzite, Semi Opal, Amazon Stone, Opal Wulfenite, Opals are very fine, will sell for \$5.00 cash with order. E. W. KELLY, Box 186, Seneca, Ill. (1-p)

Make me offers on fine Sea Lion skins for mounting, also Sloth Bear from India. WIRZ, TAXIDERMIST, 1422 Gwinnett, St., Augusta, Ga.

WANTED—A high grade camera, 5x7 preferred. Offer in exchange fine sets, high grade Ithaca hammerless gun, any gauge, new from factory; or part cash. E. F. POPE, Colmesneil, Texas.

EXCHANGE A nicely mounted specimen of a Ringtail Lemur, male, in good condition. Will exchange for Ornithological magazines and books, or good color plates, amounting to equal value. For description write, M. HOFMANN, 144 Broadway, Brooklyn, N. Y. (1-p)

Bird Skin, animal skins and cleaned skulls eggs in sets and named Coleoptera to exchange for stamps not in my collection. W. E. SNYDER, 309 De Clark St., Beaver, Dam Wis.

Live cocoons of Caligula, cachara, from India, and Moths such A ctias, selene, Antheraea pernyi in exchange for cocoons of Samia. Glovers, also orders taken for fertile eggs of Citheronia, regalis, 50 for \$1.00 and many other native and foreign eggs. A. J. POTTER, East Killingly, Conn.

Bird Books

WANTED.—No. 9 of Vol. XXVI, of The Oologist. Any of first volume of Bird Lore, complete or single numbers. Have Vol. IX of The Oologist to sell. GEO. W. H. VOS BURGH, Columbus, Wis. (1-p)

FOR EXCHANGE.—For cash, to best offer; Newman's British Moths and Newman's British Butterflies. Condition good. Inquiries answered. CHRIS FIRTH, Durham, Ont., Canada. (1-p)

WANTED.—O. & O. of Mass., Vol. X and XI; The Museum, Vol. IV, Nos. 8, 9, 10, 11, 12; Vol. V Nos. 1, 7, 11; Vol. VI, Nos. 1, 2, 3; Bird Lore, Vol. XI, Nos. 1, 5. The Taxidermist of Medina, Ohio, Vol. 1, Nos. 1, 2. CHAS. W. TINDALL, Independence, Mo. (1-p)

Wanted the following Bird Lore: Vol. III, No. 3; Vol. VII, No. 1; Vol. XI, No. 5. Will pay cash or exchange. LEWIS DEXTER, 1889 Elm St., Manchester, N. H. (1-p)

FOR SALE OR EXCHANGE.—Bird Lore, Volumes 8 and 16 inclusive, complete. Perfect condition. W. J. ERICKSEN, 208 W. 40th St., Savannah, Ga. (1-p)

Have you any bird magazines to exchange? Send list of duplicates and receive mine. J. L. SLOANAKER, Palisades, Col. Box 402.

WANTED FOR CASH. Life Histories of North American Birds by Bendire, State price. J. C. HALL, 1420 Marlowe Ave., Lakewood, Ohio.

WANTED—Bull, Cooper Orn. Club (Condor) Vol. I No. 3. Will pay \$4.00 in original covers. DR. W. M. TYLER, Lexington, Mass. (1-p)

Fine specimens of the beautiful Abert's Squirrel, and other mammals, for mounting Will exchange for books on natural History if in good condition. J. STOCKLY LIGON, Chloride, N. Mex. (1-p)

WANTED—Am. Ornithology Vol VI; Oologist, Vols. 26, 27, 28; Osprey, Vols. I and III (All complete). State lowest cash price. Have many odd numbers of Bird magazines for exchange; also several books by Wm. J. Long. List for a stamp. ROBT. W. GLENN, Rm. 107, Penna. Sta., Pittsburg, Pa.

WANTED FOR CASH.—Condor Vol. 8 complete; Vol. 9 Nos. 1, 4, 6; Vol. 10, No. 2; Bird Lore, Vol. 7, No. 1; Vol. 3, Nos. 1, 2, 3; Vol. 2, Nos. 2, 3; Vol. 1, except No. 1. J. L. SLOANAKER, Palisades, Colo. (1-p)

FOR EXCHANGE.—National Geographic magazines for good sets of any birds of prey. Write, stating what you have. S. V. WHARRAM, Austinburg, O. (1-p)

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals (mostly Ornithological) to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. (2-p)

FOR EXCHANGE.—Back numbers Oologist, Osprey, American Ornithology, Museum, etc. Also first class sets to exchange for desirable postage stamps. GEORGE D. FRENCH, Ivoryton, Conn. (1-p)

WANTED.—National Geographic Magazine, Vols 1 to 14 inc.; Guide to Nature, Vol. II; odd numbers of American Museum Journal; also Zoological Society Bulletins, original cover; good condition; state price. CHAS. O. TROWBRIDGE, Station A, Framingham, Mass.

WANTED.—Cues Key N. Am. Birds, fifth edition; back numbers of Condor, Auk and Bird Lore, A. O. U. Check List. ALBERT LANO, Fayetteville, Ark. (1-p)

FOR EXCHANGE.—First class sets with data for back numbers of the Auk, Bird Lore or Condor. E. E. JOHNSON, Hebron, Maine, R. R. 1.

WANTED. Any volumes and numbers of Ornithologist and Oologist, except volume 15 and 16. State price. I have for exchange Turner's Natural History of Alaska; A. O. U. Check-list, (latest edition); Forbush's Birds Useful to man. ROBERT W. WILLIAMS, 215 Eastern Ave., Takoma Park, Md. (1-p)

Back Numbers of Magazines for Sale

I have the following back numbers of various Natural History and Ornithological magazines for sale which will be sold cheap. If any of these are wanted for filling files, write me for prices, as I am sure some of them will not last long.

R. M. BARNES, Lacon, Ill.

- ASA GRAY BULLETIN, Vol. No. 1.
 ATLANTIC SLOPE NATURALIST, Vol. 1, No. 3.
 AMERICAN NATURALIST, Vol. 9, No. 5.
 AMERICAN ORNITHOLOGY, Vol. 1 No. 1; Vol. 2 No. 1-4-6; Vol. 4, No. 1; Vol. 5, No. 4.
 ANIMAL LIFE, Vol. 1, No. 9.
 AUDUBON MAGAZINE, Vol. 1 No. 9.
 AVIFAUNA, Vol. 1 No. 2.
 BIRD LORE, Vol. 1 No. 1; Vol. 6 No. 6.
 BIRD NEWS, Vol. 1 No. 2.
 THE BITTERN (Cedar Rapids, Ia.) Vol. 1 No. 1.
 THE BITTERN (Damariscotta, Me.) Vol. 1 No. 6.
 BOSTON ZOOLOGICAL SOCIETY QUARTERLY JOURNAL, Vol. 1 No. 3; Vol. 2 No. 2.
 BROOKLYN ENTOMOLOGICAL SOCIETY, Vol. 1 No. 6, Oct. 1878.
 BULLETIN MICHIGAN ORNITHOLOGICAL CLUB, Vol. 1 No. 3-4;
 BULLETIN NUTTALL ORNITHOLOGICAL CLUB, Vol. 2 No. 1.
 CANADA NATURALIST SCIENCE NEWS, Vol. 1 No. 1.
 COLLECTOR'S MONTHLY, (London, England), Jan. 1894, No. 1.
 COLLECTOR'S MONTHLY, Vol. 2 No. 4-5.
 STORMY PETREL, Vol. 1 No. 5.
 THE COMMON SENSE, Vol. 2 No. 2.
 CONCHOLOGIST'S EXCHANGE, Vol. 2 No. 3.
 EXCHANGE BULLETIN, Vol. 1 No. 2.
 FOREST & FIELD, Vol. 1 No. 1.
 HOOSIER NATURALIST, Vol. 2 No. 6.
 THE HUMMER, Vol. 1 No. 5-6.
 INTERNATIONAL NATURALIST, Vol. 2 No. 5.
 JOURNAL OF THE MAINE ORNITHOLOGICAL SOCIETY, Vol. 7 No. 1-4; Vol. 8 No. 3-4; Vol. 9 No. 2.
 MINERALS, Vol. 1 No. 1.
 MAINE ORNITHOLOGIST & OOLOGIST, Vol. 1 No. 1.
 THE MUSEUM, Vol. 1 No. 2; Vol. 3 No. 3; Vol. 4 No. 1.
 THE NATURALIST (Austin, Tx.) Vol. 1 No. 3-7.
 THE NATURALIST (Oregon City, Ore.) Vol. 1 No. 12.
 NATURALIST & COLLECTOR, Vol. 1 No. 3.
 THE NAUTILUS, Vol. 6 No. 1.
 THE NIDILOGIST, Vol. 2 No. 4-12.
 THE OBSERVER, Vol. 5 No. 1; Vol. 6 No. 6.
 THE OOLOGIST (Utica, N. Y.) Vol. V. complete.
 THE OOLOGIST (Albion, N. Y. and Lacon, Ill.) complete files.
 THE OOLOGIST'S JOURNAL, Vol. 2 No. 2.
 THE OOLOGIST'S EXCHANGE, Vol. 1 No. 4; Vol. 2 No. 3-7.
 THE OREGON NATURALIST, Vol. 1 No. 1; Vol. 2 No. 3, 5, 9, 11, 12; Vol. 3 No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11; Vol. 4 No. 2, 7, 9.
 ORNITHOLOGIST & BOTANIST, Vol. 1 No. 5.
 ORNITHOLOGIST & OOLOGIST, Vol. 16 No. 7; Vol. 18 No. 3-6.
 OSPREY, Vol. 3 No. 1.
 RANDOM NOTES ON NATURAL HISTORY, Vol. 1 No. 5-9.
 SCIENCE, Vol. 1 No. 16; Vol. 2 No. 25; Vol. 5 No. 114; Vol. 7 No. 154; Vol. 2 (new series) No. 49.
 WEST AMERICAN SCIENTIST, Vol. 4 No. 34.
 WESTERN ORNITHOLOGIST, Vol. 5 No. 1, 2, 3.
 WILSON ORNITHOLOGICAL CHAPTER PUBLICATIONS:-
 THE QUARTERLY, Vol. 4 No. 2.
 THE HOURNAL, Vols. 1 and 2.
 THE BULLETIN, Nos. 45, 46, 47, 48, 49.
 ZOE, Vol. 1 No. 1.

WANTED—Volume II of The Auk, either bound or unbound for which I offer cash or other ornithological works in exchange. W. OTTO EMERSON, Palm Cottage, R. F. D. Haywards, Calif.

FOR SALE.—Chapman's Handbook Eastern Birds, 1904. Text clean; covers slightly worn. \$1.75 prepaid. CHARLES L. PHILLIPS, 5 West Weir St., Taunton, Mass.

WANTED.—Ornithologist and Oologist Vol. 1-5, Osprey Vol. 1, No. 2 and 4, Bulletin Cooper Club, Vol. 1 and 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR SALE.—For the best cash offer Recreation Vol. 6 to 23 (18 vol.) in good condition. E. E. JOHNSON, Hebron, Maine, R. R. 1.

THE CONDOR

A Magazine of Western Ornithology

Published Bi-monthly by the
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Edited by J. Grinnell and Harry S. Swarth

"The Condor" is strictly scientific but edited in such a way that a beginner of "Bird Study" can easily understand it.

The articles in "The Condor" are written by the leading Ornithologists of the United States and are illustrated by the highest quality of half tones.

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THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXII. No. 5. ALBION, N. Y., MAY. 15, 1915. WHOLE NO. 334

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In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

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Birds, mostly mounted; some skins. Will exchange for desired specimens, if first class. Send stamp and exchange lists promptly. A. RUSSELL SMITH, Edge Hill, Pa.

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FOR SALE CHEAP.—All kinds of California birds, animals, reptiles, insects, fish, etc. Mounted or skins. Also all kinds of eggs. Let me know your wants. R. G. PIERCE, Anderson, Shasta Co., California. (1-p)

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EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

WANTED—To hear from reliable collectors who have A-I sets of Whooping Crane, Sandhill Crane, Pacific and Black-throated Loon to dispose of. JAMES B. CARTER, Waynesburg, Pa.

FOR EXCHANGE.—A few old copper coins for sets of birds of prey. Write what you have. S. V. WHARRAM, Austinburg, O. (1-p)

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FOR EXCHANGE—Sets from this locality, for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

TO EXCHANGE—For eggs in sets; one 22 cal. rifle, good condition. Complete course in Taxidermy (N. W. School), one E Flat Alto Horn. Can use many common sets. E. A. WHEELER, East Randolph, N. Y.

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EXCHANGE.—A few sets of Red-shouldered and Cooper Hawks. Wanted, sets of 132, 136, 140, 141, 143, 146, 160; also 30, 30a, 32. C. G. HART, East Berlin, Conn. (1-p)

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EGGS. Bulwer's Petrel, Iceland Gull, Curlew, Plovers, exchange for Osprey, Bartram Sandpiper, etc. Send lists. Also have some good sets of foreign for sale cheap. H. T. BOOTH, 8 Cranbury Road, Fulham, England.

Will purchase large hardwood drawer egg cabinet, also complete egg blowing outfit, used bird books, all in good condition. H. W. BRANDT, 7625 Lexington Ave., Cleveland Ohio. (1-p)

Will exchange for desirables of similar rarity, sets of A. O. U. 95, 114.1, 81, 134, 295, 301, 302, 310, 327, 330, 354, 356, 389, 416, 417, 419, 639, 641, 654, 666, 677. THOMAS H. JACKSON, 304 N. Franklin St., West Chester, Pa.

FOR EXCHANGE.—White Pelican, Cal. Gull, Baird's Cormorant, Avocet, Stilt, and many others, all first class with data. Send lists. J. LABARTHE, Thompson, Nevada. (3-p)

I should like to hear from collectors who will exchange bird skins for first class sets of eggs such as 273, 329, 343, 393, 394c, 423, 461, 587, 598, 608, 617, 627, 659, 674, 676, 677, 725, 751. I want mostly common species, e. g., 3, 6, 7, 11, 13, 30, 32, 40, 51, 58, 69, 70, 74, 77, 104, 106, 129, 131, 132, 133, 139, 214, 263, 273, 316, 335, 337, 360, 375, 388, 390, 423, 428, 456, 465, 495, 506, 511b, 546, 598, and many others. S. S. DUCKEY, Waynesburg, Pa. (1-p)

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What am I offered for Snowy Owl 1-7 Amer. Coll., Swallow-tailed Kite F-2 Golden Eagle 1-2, 1-3, Duck Hawk 1-4, Black-footed Albatross 1-1? If you don't need them write for my list. A. E. PRICE, Grant Park, Ill.

I have for exchange many fine sets, personally taken, finely prepared, among which are: 6 1-8, 194b 1-5 1-6, 199 1-4, 218 1-8, 219 1-9, 228 1-4, 289b 1-4, 293 1-2, 295 1-13, 300b 1-14, 307 1-9, 310 1-14, 310c 1-15, 331 1-5, 333 1-4, 334a 1-3, 335 1-4, 1-5, 337a 1-3, Texas Red-shoulder 1-3, 1-4, 339 1-3, 340 1-2, 341 1-2, 1-3, 342 1-3, 345 1-2, 347a 1-3, 368b 1-2, 373b 1-4. Send your lists and get my full list. E. F. POPE, Colmesneil, Texas.

FOR EXCHANGE.—Fine sets Common Tern, Snowy North and South American Butterflies in insect proof cases, Atlantic coast shells and curios. Wanted eggs in sets. Lists exchanged. KARL SQUIREN, 70 Moorland Ave., Edgewood, R. I. (1-p)

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EGGS—A collection to highest bidder. W. C. WOOD, 179 17th St., Detroit, Mich.

WHAT DO YOU WANT me to collect for you? Will collect cigar bands, wood, butterflies and sets, or anything. Vol. 30 of Auk for exchange. EARL MOFFAT, Marshall, Texas. (1-p)

WANTED.—Good Taxidermist, close to Texas to exchange Taxidermy work for sets. All correspondence answered. EARL MOFFAT, Marshall, Texas. (1-p)

ON SALE.—Good twelve Gauge, Breech loading shot gun, reloading tools; 32 Gauge Auxiliary Barrel tools, shells, no Extractor; five dollars cash ten dollars exchange (eggs) net. Buffalo bones (guaranteed) seven cents to sixty; one skull no horns \$1.60, net. Porcupine quills, seven cents per dozen. Others up to forty cents, stamps, over forty cents, postal order. KALE THOMPSON, Box 175, Irving, Kansas. (1-p)

WANTED THE FOLLOWING SETS.—Purple Sandpiper 2-4, American Bittern N-4 American Golden Plover N-4, Bonapartes Gull N-3, Greater Yellow-legs 1-4. Will give in exchange Sets mounted birds and skins. Live Northern Birds supplied. PORTAGE WILD ANIMAL CO., Portage La Prairie, Manitoba, Can. Box 223.

MISCELLANEOUS.

To exchange for stone relics several copies of Harpers Illustrated Weekly from 1860 to 1873. L. A. PARRE, Batavia, Ill.

WANTED.—Indian Relics for cash or exchange. Also finely mounted specimen birds. DR. A. E. PAYNE, Riverhead, N. Y. (1-p)

WANTED.—Type and printer's supplies. Have Natural history, medical and other books, skins for mounting, mounted specimens, fishing tackle, shells, minerals, battery, massage machine. J. J. WIRZ, Taxidermist, Augusta, Ga. (1-p)

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WANTED.—To correspond with parties in Arizona and New Mexico who would collect Beetles for me for cash or exchange. W. E. SNYDER, Beaver Dam, Wis. (1-p)

Perfect, and well mounted specimens of North American moths and butterflies offered in exchange for North American bird skins. PHILIP LAURENT, 31 East Mt. Airy Ave., Philadelphia, Pa.

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MISCELLANEOUS.

FOR SALE.—I have a fine line of arrows and spears from Grime County, Texas. Send \$1.00 for a dozen perfect arrows. GEORGE E. DOERGE, Navasota, Texas, Box 484. (1-p)

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Make me offers on fine Sea Lion skins for mounting, also Sloth Bear from India. WIRZ, TAXIDERMIST, 1422 Gwinnett, St., Augusta, Ga.

WANTED—A high grade camera, 5x7 preferred. Offer in exchange fine sets, high grade Ithaca hammerless gun, any gauge, new from factory; or part cash. E. F. POPE, Colmesneil, Texas.

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 COLLECTOR'S MONTHLY, (London, England), Jan. 1894, No. 1.
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Editor, R. M. Barnes, Lacon, Ill.; Managing Editor, R. M. Barnes, Lacon, Ill.; Business Manager, R. M. Barnes, Lacon, Ill.; Publisher, R. M. Barnes, Lacon, Ill.

Owner, R. M. Barnes, Lacon, Ill.
Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities: None.

ERNA THEDOHR,

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VOL. XXXII. No. 6. ALBION, N. Y., JUNE, 15, 1915. WHOLE NO. 335

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In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpeter Swan. R. M. Barnes, Lacon, Ill.

WANTED—Skins of N. A. Snipe, Plover, etc. in first class shape for mounting. Must be A. I. ARTHUR G. RUECKERT, 2252 N. Kostner Ave., Chicago, Ill. (1-p)

I have a few finely mounted birds on hand to exchange. Who wants them? First class taxidermy work done at lowest prices. LES-TER SPEER, Taxidermist, Bentonville, Ark. (1-p)

WILL EXCHANGE.—Small collection of Idaho bird skins for long focus 4 x 5 folding plate camera box with case and extra holders. HENRY J. RUST, Coeur D'Alene, Idaho, Box 683. (1-p)

TRADE.—18 A. farm. Will take \$175 cash and \$150 in bird skins or eggs or both. If interested write me. W. G. SAVAGE, Delight, Ark. (1-p)

FOR SALE OR EXCHANGE.—Nicely mounted specimens, Ringneck Pheasant, Wood Duck, Barn Owl, California Quail, Single Yellow-head Parrot, and a few others. Might exchange for books on ornithology. Write for description. M. HOFMANN, 1434 Broadway, Brooklyn, N. Y. (1-p)

WANTED to exchange skin or specimens of birds mounted on the East for specimens of Western States. WINCHESTER NATURAL HISTORY MUSEUM, Winchester, N. H.

TROPICAL BIRDS.—Anyone interested in Central American material, communicate with E. O. EHRHART, Box 193, Jonnsnburg, Pa. (1-p)

WANTED—Fine skins only of most Sandpipers. Offer fine sets of eggs, 300a, 412a, 466a, 29, 542a, 567, 584. H. MOUSLEY HATLEY, P. Q. (1-p)

FOR SALE OR EXCHANGE.—A number of desirable mounted specimens. Will exchange for Bird Lore, Auk, Osprey, American Museum Journal or other Ornithological magazines. M. HOFMANN, 1434 Broadway, Brooklyn, N. Y.

I want to exchange for bird skins of 218-226-231-232-292-293-294-295-301-521-443-471. D. V. HEMBREE, Roswell, Ga. (1-p)

FOR EXCHANGE.—Beautifully mounted R. T. Hummingbirds, Scarlet Tanager, Rose-breasted Grosbeak, and 50 varieties, for others or skins. What have you? Also skins, nests and eggs to trade. DR. J. P. BALL, 5001 Frankford Ave., Philadelphia, Pa. (4-p)

FOR SALE OR EXCHANGE.—Nicely mounted specimens. Yellow-rump Loucon, Ringneck Pheasant, Wood Duck, Barn Owl, Call Quail, Single Yellow-head Parrot, and a few others. These are all in good condition. I might exchange for guns or ornithological publications or other mounted specimens. Write for description of my specimens. M. HOFMANN, 1434 Broadway, Brooklyn, N. Y.

EXCHANGE.—A number of desirable mounted specimens for Bird Lore, Osprey, Auk, Condor, American Museum Journal or other ornithological magazines. Address MILTON HOFMANN, 1434 Broadway, Brooklyn, N. Y.

WANTED—I want male skins of 666-652b-68le, and sub-species of 550. I have eggs of 364. R. P. SHARPLES, West Chester, Pa. (1-p)

Birds, mostly mounted; some skins. Will exchange for desired specimens, if first class. Send stamp and exchange lists promptly. A. RUSSELL SMITH, Edge Hill, Pa.

WANTED.—A skin of a Cockatoo that is in good condition. Please name price for same. Butterflies and Moths exchanged and bought. Please send list. CASPAR G. BURN, Oxford, Pa. (1-p)

Over 400 mounted birds, mammals and reptiles. Eggs in sets. Foreign and United States coins. Columbia stamps, a few sets of St. Louis Exposition unused. Book on raising skunks, 50c. Tanning process, Guinea Pigs. Oologist from about 1888. What can you offer? ALMON KIBBE, Mayville, N. Y. (1-p)

Have a number of very fine mounted Am. Wood Cock. Will exchange for A 1 skins of hawks. Want skins of mounted Spoon-bill Sandpiper. K. W. KAHMANN, 2457 Lincoln Ave., Chicago, Ill.

Anyone wishing to exchange bird skins please send list and I will send my list of duplicates per return mail. J. A. WEBER, Palisades Park, N. J. (1-p)

WANTED—A 1 Bird Skins also eggs in sets. Send list of what you have to exchange. EDW. E. ARMSTRONG, 207 N. Michigan Av., Chicago, Ill. (1-p)

WHO WANTS SOME CHOICE SKINS OF LOWER CALIFORNIA WATER AND GAME BIRDS? Skins of the best class. Very moderate prices. GEO. PRESTLY, Garden Grove, Calif. (2-p)

EXCHANGE—Live Wild Canada, Hutchins, White-fronted, and Snow Geese, Wild Ducks, and Pheasants for Egyptian Geese, Black, Brant, Mandarin and Wood Ducks, Quail and Hungarian Partridges. H. J. JAGER, Owatoma, Minn. (5-p)

BELGIUM RELIEF FUND—I have for sale a set of Peale's Falcon, skin identified and in collection of Mr. Allen Brooks. These eggs are unique. What offer. C. C. GREEN, Care W. F. BURTON, St. Charles St., Victoria, B. C.

FOR SALE CHEAP.—All kinds of California birds, animals, reptiles, insects, fish, etc. Mounted or skins. Also all kinds of eggs. Let me know your wants. R. G. PIERCE, Anderson, Shasta Co., California. (1-p)

HUMMINGBIRDS.—I have 110 scientific birds' skins from South America, 62 of which are Hummingbirds, such as Turquoise Caliste, Shining and Blue Honey Creepers, Cotinga, Sabre Wing, etc. Also Motmots, Jacana Colored Swift, Passerinis Tanager, Massena Partridge and many other odd and rare skins. Also some mounted specimens. This is a good chance to secure some valuable skins at reasonable prices. Most of them are first class in every particular, otherwise I will advise you of their condition before hand. Send for list. These were personally collected by J. H. Batty of the American Museum of Natural History. M. HOFMANN, 674 Jamaica Ave., Brooklyn, N. Y.

FOR EXCHANGE—Bird Skins. Want Hummingbirds only, mounted or skins, nest and eggs of same. EARL HAMILTON, 400 Walnut St., Versailles, Pa.

WANTED—Living healthy birds of the following species for aviary: Rose-breasted Grosbeak, Eastern and Western Evening Grosbeaks, Eastern and California Pine Grosbeaks, Eastern and Western Blue Grosbeaks, and Pyrrhuloxias. Expenses attendant upon capture of these birds, and fair remuneration will be paid. Write in advance in regard to state permits. Correspond with: F. W. HENSHAW, Redwood City, San Mateo County, California.

EGGS.
In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

Nice data blanks, 100 pages, book form with stubs, 50c. Samples all kinds printing, Arts & Crafts Exchange. J. J. WIRZ, 1422-1424 Gwinnett St., Augusta, Ga.

EGGS, SETS.—A bargain, do not miss it. W. C. WOOD, 179 17th St., Detroit, Mich. (1-p)

TO EXCHANGE—For eggs in sets. Complete course of lessons in Taxidermy (Standard works), Game Chickens, Cocks and Pullets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE—Sets from this locality, for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

TO EXCHANGE—For eggs in sets; one 22 cal. rifle, good condition. Complete course in Taxidermy (N. W. School), one E Flat Alto Horn. Can use many common sets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE—European and Asiatic bird eggs in sets with data for eggs of North American species needed for my collection. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR EXCHANGE—75 eggs, also sets 1-2-1-1 Mississippi Kite, personally collected complete data. All eggs first class. H. S. SOWERS, Brownell, Kansas.

WANTED.—Collecting gun and kodak. Offer Raptors in sets, including 329, 341, 345, 347a, 359. D. I. SHEPARDSON, 209 E. 37th St., Los Angeles, Cal. (1-p)

EGGS, Continued.

FOR EXCHANGE.—Parallone eggs with small holes; also 749, 726d and many others. Send your list. H. W. CARRIGER, 5185 Trask St., Fruitvale Sta., Oakland, Calif.

(1-p)

FOR EXCHANGE.—Sets from the locality for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

FOR EXCHANGE.—207 1-4 348 10-4 4-3 349 1-1 355 3-5 364 10-3 416 1-2 417 1-2 486 1-4 and others. Send list of selected full sets. E. J. DARLINGTON, Wilmington, Del.

WANTED.—Choice sets of numbers 10-131-204-215-352a-372-405 and several warblers. Also common kinds 339-360-540b-542a-546a-597a. Also 328 and 332. Satisfactory remuneration. Old correspondents please write. A. E. PRICE, Grant Park, Ill.

EGGS. Bulwer's Petrel, Iceland Gull, Curlew, Plovers, exchange for Osprey, Bartram Sandpiper, etc. Send lists. Also have some good sets of foreign for sale cheap. H. T. BOOTH, 8 Cranbury Road, Fulham, England.

FOR EXCHANGE.—Strictly first-class personally collected sets of 332-333-339-343 and a few others, to exchange for desirable postage stamps. GEORGE D. FRENCH, Ivoryton, Conn.

Will exchange for desirables of similar rarity, sets of A. O. U. 95, 114.1, 81, 134, 295, 301, 302, 310, 327, 330, 354, 356, 389, 416, 417, 419, 639, 641, 654, 666, 677. THOMAS H. JACKSON, 304 N. Franklin St., West Chester, Pa.

Single sets to exchange—142-316-412-447-489-494-495-501-511-560-519-552-563-581-584-611-622a-652-704-713-719-761-761a-766. Write first. Send list of your exchange numbers. A. O. DURLAND 1242 S. 1st, Evansville, Ind.

TO EXCHANGE. For eggs in sets, fine set of field glasses in leather case. Many common sets wanted. E. A. WHEELER, East Randolph, N. Y.

What am I offered for Snowy Owl 1-7 Amer. Coll. 1 Swallow-tailed Kite 1-2 Golden Eagle 1-2, 1-3, Duck Hawk 1-4, Black-footed Albatross 1-1? If you don't need them write for my list. A. E. PRICE, Grant Park, Ill.

I have for exchange many fine sets, personally taken, finely prepared, among which are: 6 1-8, 194b 1-5 1-6, 199 1-4, 218 1-8, 219 1-9, 228 1-4, 289b 1-14, 293 1-12, 295 1-13, 300b 1-14, 307 1-9, 310 1-14, 310c 1-15, 331 1-5, 333 1-4, 334a 1-3, 335 1-4, 1-5, 337a 1-3, Texas Red-shoulder 1-3, 1-4, 339 1-3, 340 1-2, 341 1-2, 1-3, 342 1 3, 345 1-2, 347a 1-3, 368b 1-2, 373b 1-4. Send your lists and get my full list. E. F. POPE, Colmesneil, Texas.

TO EXCHANGE.—Two sets of 5 of Sharp-shinned Hawks, No. 1 Eggs. Sets of 12 and 13 of Nothopsocta perdicaria (Kitt) the wonderful polished eggs of South America. You can see your image in the surface of them. Taken by the Superintendent of the Chilean Agricultural College. Series of American Herring Gull and Caspian Tern. Brand new 16 Shot Winchester rifle (22 caliber). What have you? Would consider good postal size camera. DR. W. A. HART, Lapeer, Mich.

EGGS—A collection to highest bidder. W. C. WOOD, 179 17th St., Detroit, Mich.

For Nova Scotia Birds Eggs and Skins, write to R. W. TUFTS, Wolfville, Nova Scotia.

WHAT DO YOU WANT me to collect for you? Will collect cigar bands, wood, butterflies and sets, or anything. Vol. 30 of Auk for exchange. EARL MOFFAT, Marshall, Texas. (1-p)

WANTED.—Good Taxidermist, close to Texas to exchange Taxidermy work for sets. All correspondence answered. EARL MOFFAT, Marshall, Texas. (1-p)

ON SALE.—Good twelve Gauge, Breech loading shot gun, reloading tools; 32 Gauge Auxiliary Barrel tools, shells, (no Extractor); five dollars cash ten dollars exchange (eggs) net. Buffalo bones (guaranteed) seven cents to sixty; one skull (no horns) \$1.60, net. Porcupine quills, seven cents per dozen. Others up to forty cents, stamps, over forty cents, postal order. KALE THOMPSON, Box 175, Irving, Kansas. (1-p)

WANTED THE FOLLOWING SETS—Purple Sandpiper 2-4, American Bittern N-4 American Golden Plover N-4, Bonapartes Gull N-3, Greater Yellow-legs 1-4. Will give in exchange Sets Mounted birds and skins. Live Northern Birds supplied. PORTAGE WILD ANIMAL CO., Portage La Prairie, Manitoba, Can. Box 225.

MISCELLANEOUS.

To exchange for stone relics several copies of Harpers Illustrated Weekly from 1860 to 1873. L. A. PARRE, Batavia, Ill.

WANTED—Indian Relics for cash or exchange. Also finely mounted specimen birds. DR. A. E. PAYNE, Riverhead, N. Y. (1-p)

WANTED.—Type and printer's supplies. Have Natural history, medical and other books, skins for mounting, mounted specimens, fishing tackle, shells, minerals, battery, massage machine. J. J. WIRZ, Taxidermist, Augusta, Ga. (1-p)

FOR SALE.—Good substantial bird houses for Wren, Blue Birds, etc. Post paid, for 50 cents. R. B. KIDDER, Columbus, Wis.

WANTED.—A pair of calipers marked in hundredths and any copies of the "Iowa Ornithologist." Also have a few common sets to exchange. EMERSON STONER, 432-38th St., Oakland, Calif. (1-p)

FOR EXCHANGE.—Butterflies and moths for eggs in sets or others, many common ones wanted. Would like a copy of "The Butterflies of the West Coast." JOHN GRAVES, 1057 62nd St., Oakland, Cal. 1-p)

WANTED.—To correspond with parties in Arizona and New Mexico who would collect Beetles for me for cash or exchange. W. E. SNYDER, Beaver Dam, Wis. (1-p)

WANTED AT ONCE.—A specimen or the Red Fox in fine winter fur. Also skin or mounted specimen of the Varying Hare of Snow Shoe Rabbit in brown summer fur. A pair of Bald Headed Eagles in the down is also desired. Address, stating price, DIRECTOR, THE CHICAGO ACADEMY OF SCIENCES, Lincoln Park, Chicago, Ill. (1)

MISCELLANEOUS.

FOR SALE.—I have a fine line of arrows and spears from Grime County, Texas. Send \$1.00 for a dozen perfect arrows. GEORGE E. DOERGE, Navasota, Texas, Box 484. (1-p)

Brazilian Beetles and small showy shells wanted. Will give skin of Snowy Owl, eggs, butterflies or cash. GEORGE ROSSITER, 52 Tiverton Ave., Toronto, Canada. (1-p)

FOR EXCHANGE.—Alligator eggs, also Limpkin and lather back turtle eggs. NAT. P. FRY, Eureka, Marion Co., Florida. (1-p)

FOR SALE AND EXCHANGE.—Live Snakes, Lizards, Baby Turtles, also general line of Florida insects. NAT. P. FRY, Eureka, Marion County, Florida. (1-p)

For Collectors, a fine collection of specimens, all large and very fine, one Chnstolite Tourquoix Matrix, Toursonite Tourmaline, Californite, Kuzite, Semi Opal, Amazon Stone, Opal Wulfenite. Opals are very fine, will sell for \$5.00 cash with order. E. W. KELLY, Box 186, Seneca, Ill. (1-p)

Make me offers on fine Sea Lion skins for mounting, also Sloth Bear from India. WIRZ, TAXIDERMIST, 1422 Gwinnett, St., Augusta, Ga.

WANTED—A high grade camera, 5x7 preferred. Offer in exchange fine sets, high grade Ithaca hammerless gun, any gauge, new from factory; or part cash. E. F. POPE, Colmesneil, Texas.

Bird Skins, animal skins and cleaned skulls eggs in sets and named Coleoptera to exchange for stamps not in my collection. W. E. SNYDER, 309 De Clark St., Beaver, Dam Wis.

Perfect, and well mounted specimens of North American moths and butterflies offered in exchange for North American bird skins. PHILIP LAURENT, 31 East Mt. Airy Ave., Philadelphia, Pa.

Bird Books

WANTED. For cash, Osprey Vol. I Nos. 2 and 4; Vol. III Nos. 8-9-10-11-12. Also need many numbers of Bird Lore, Oologist, etc. Send list of duplicates and receive mine. R. W. GLENN, Room 107 Penna. Sta., Pittsburg, Pa. (1-p)

FOR EXCHANGE.—For cash, to best offer; Newman's British Moths and Newman's British Butterflies. Condition good. Inquiries answered. CHRIS FIRTH, Durham, Ont., Canada. [1-p]

WANTED.—O. & O. of Mass., Vol. X and XI; The Museum, Vol. IV, Nos. 8, 9, 10, 11, 12; Vol. V Nos. 1, 7, 11; Vol. VI, Nos. 1, 2, 3; Bird Lore, Vol. XI, Nos. 1, 5. The Taxidermist of Medina, Ohio, Vol. I, Nos. 1, 2. CHAS. W. TINDALL, Independence, Mo. [1-p]

FOR SALE OR EXCHANGE.—Bird Lore, Volumes 8 and 16 inclusive, complete. Perfect condition. W. J. ERICKSEN, 208 W. 40th St., Savannah, Ga. (1-p)

Have you any bird magazines to exchange? Send list of duplicates and receive mine. J. L. SLOANAKER, Palisades, Col. Box 402.

FOR SALE.—The following Bird Lore: Vol. III No. 6 (without index); Vol. IV Nos. 3-4-5-6 (with index); Vol. VII Nos. 2-3-4-5-6 (with index) Vol. VIII No. 2. LEWIS DEXTER, 1889 Elm St., Manchester, N. H. (1-p)

FOR SALE.—Cheap for cash. Standard Library of Natural History; leather; new; 5 volumes; hundreds of illustrations. EARLE R. FORREST, 261 Locust Ave., Washington, Pa.

WANTED—Bull, Cooper Orn. Club (Condor) Vol. I No. 3. Will pay \$4.00 in original covers. DR. W. M. TYLER, Lexington, Mass. (1-p)

Fine specimens of the beautiful Abert's Squirrel, and other mammals, for mounting Will exchange for books on natural History if in good condition. J. STOCKLY LIGON, Chloride, N. Mex. (1-p)

WANTED—Am. Ornithology Vol VI; Oologist, Vols. 26, 27, 28; Osprey, Vols. I and III (All complete). State lowest cash price. Have many odd numbers of Bird magazines for exchange; also several books by Wm. J. Long. List for a stamp. ROBT. W. GLENN, Rm. 107, Penna. Sta., Pittsburg, Pa.

WANTED FOR CASH.—Condor Vol. 8 complete; Vol. 9 Nos. 1, 4, 6; Vol. 10, No. 2; Bird Lore, Vol. 7, No. 1; Vol. 3, Nos. 1, 2, 3; Vol. 2, Nos. 2, 3; Vol. 1, except No. 1. J. L. SLOANAKER, Palisades, Colo. (1-p)

FOR EXCHANGE.—National Geographic magazines for good sets of any birds of prey. Write, stating what you have. S. V. WHARRAM, Austinburg, O. (1-p)

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals [mostly Ornithological] to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. [2-p]

FOR EXCHANGE.—Back numbers Oologist, Osprey, American Ornithology, Museum, etc. Also first class sets to exchange for desirable postage stamps. GEORGE D. FRENCH, Ivoryton, Conn. [1-p]

FOR SALE.—Nidologist, Vol. 1, 2, 3, 4, bound \$7.50. Oologist Vols. 1 to 25 inclusive \$25.00. Osprey, Vols. 1, 2, 3, \$5.00. Many others; all delivered. A. E. SCHFUZE, 1108 Blanco St., Austin, Texas.

SALE OR EXCHANGE.—Messages and papers of the President, II Vol. bound in half leather. Trolling Rods, Fly Rods and Reel. All back numbers. All Story Cavalier Weekly. Can use eggs in sets and some first-class skins. E. L. HALEY, Rangeley, Maine.

WANTED.—Cones Key N. Am. Birds, fifth edition; back numbers of Condor, Auk and Bird Lore. A. O. U. Check List. ALBERT LANO, Fayetteville, Ark. (1-p)

Have a set of the The Paper and Messages of the President good as new, cost \$32.50. Will exchange for best offer in stamps or eggs. JESSE C. A. MEEKER, Danbury, Ct., Box 161.

WANTED.—Any volumes and numbers of Ornithologist and Oologist, except volume 15 and 16. State price. I have for exchange Turner's Natural History of Alaska; A. O. U. Check-list, (latest edition); Forbush's Birds Useful to man. ROBERT W. WILLIAMS, 215 Eastern Ave., Takoma Park, Md. (1-p)

The July number of The Oologist contains Frank L. Burns' Bibliography of scarce or out of print North American Amateur and Trade Periodicals devoted more or less to ornithology.

This has taken more than two years to produce and is a monumental effort on the subject. It will be invaluable as for reference and as a checking list in the futuer and only a limited number of copies have been printed. If you want extra copies send in your order; otherwise it may be too late. Price 25 cents.

WANTED—Volume II of *The Auk*, either bound or unbound for which I offer cash or other ornithological works in exchange. W. OTTO EMERSON, Palm Cottage, R. F. D. Haywards, Calif.

FOR SALE.—Chapman's *Handbook Eastern Birds*, 1904. Text clean; covers slightly worn. \$1.75 prepaid. CHARLES L. PHILLIPS, 5 West Welr St., Taunton, Mass.

WANTED.—Ornithologist and Oologist Vol. 1-5, Osprey Vol. 1, No. 2 and 4, Bulletin Cooper Club, Vol. 1 No. 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR SALE.—For the best cash offer Recreation Vol. 6 to 23 (18 vol.) in good condition. E. E. JOHNSON, Hebron, Maine. R. R. 1.

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Edited by J. Grinnell and Harry S. Swarth

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I showed a copy of *The Oologist* to the Carnegie Librarian here and she said she would subscribe for it for the library. She said that she thought it was a most helpful magazine for the bird student. Another party I gave one to, said that it gave more facts about birds in a single copy than the *Bird Lore* gave in a year, and he knows too, for he was raised up on the *Bird Lore*.

Finally Simmons.

May its shadow never grow less.
Not the dollar, but the magazine.

H. W. Flint.

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Prompt quotations on any book or magazine. Everything PREPAID.

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FOR EXCHANGE.—National Geographic and other Natural History and Popular magazines for Bird Lore, Auk, and Bird's eggs. A. W. CASTELLANOS, 259 Armstrong Ave., Jersey City, N. J.

FOR SALE.—Bird Lore Vols. 1 to 16 inclusive in original wrappers, also vols. 1-2-3-4 in red cloth gilt tops, will sell set complete or will sell any volume or any single issue for the best offer. Birds and Nature Vols. 6 to 19 inclusive, except Vol. 9. Osprey Vols. 4 and 5 bound and many odd issues. Bendires Life Histories, Vol. 1 in original paper covers. Vol. 2 rebound in half morocco. Good as new. J. N. SWIFT, Stockport, Ohio. (1-p)

WANTED FOR CASH—The Condor, Vol. 1 to IV; The Auk, Vols. 1 to X; The Osprey, Vol. I to II; The National Geographic Magazine, Vol. I to XVII; Nature and Culture Vol. I., LAURA KEAN, Stockport, O. (2-p)

WANTED.—Books, Magazines and Pamphlets about Birds and Natural History Subjects. In all cases state what you have and the lowest cash prices. No other prices considered. Address FRANK BENDER, 128 Fourth Ave., New York City. (3-14)

FOR SALE.—Large number of magazines, Ornithological and Botanical Scientific and Exploration notes. Purchaser must take the lot. Snap, \$15.00 postpaid. Send for list. GÜSS CROSSA, Suite 1, Purvis Block, Edmonton, Alta. (1-p)

WANTED.—The Auk, Volume IV (1887). Will pay cash or exchange other publications for same. HARRY C. OBERHOLSER, 1444 Fairmont St., N. W. Washington, D. C. (1-p)

WANTED.—Oregon Naturalist Vol. I, Nos. 2-12, Vol. II, No. 1, Bulletin of the Cooper Club Vol. I, Nos. 2-3-5, and Nidologist Vol. I. Offer good exchange in skins or magazines. STANLEY G. JEWETT, 582 Bidwell Ave. Portland, Oregon. (1-p)

WANTED.—Oologist, Vol. 4, No. 1; Vol. 6; No. 4; Birds and Nature, index to Vol. 2; Osprey, Vol. 3, Nos. 8-9-10; Vol. 5, Nos. 2-5-7-9; N. S., Nos. 2-4-7. Nidologist, Vol. 1, Nos. 1-2-3-5-6; O. & O. Vol. VIII, all. American Ornithology, Vol. 4, Nos. 1-4-9; Vol. 6, Nos. 3-6; O. & O. Semi-annual, Vol. 2 No. 1. Wilson Bulletins for years 1896 to 1899 inclusive. Bird Lore, Vol. 1, Nos. 2-3-4; Vol. 13 Nos. 1-2-3; Vol. 15 No. 6. LAUREN FREMPER, No. 136 Dewey St., Philadelphia, Pa. (1-p)

FOR SALE OR EXCHANGE Bird Lore's for sale or exchange for any set of Raptor's. Most of them do not contain any colored plates. R. LOZIER, Attica, Ohio.

EXCHANGE.—January, February, March, Bird Lore, 1913, for Nos. 306-307-309-310-311-312-313-314 of The Oologist or some Bird books. GRANT HALEY, Springford, Ontario. (1-p)

BOOK INFORMATION WANTED—Will every owner of Complete files of The Auk look at the first six volumes and see if they have the Autograph of my father (H. B. Bailey) on the front page? If you know of their whereabouts, communicate with me, and oblige. H. H. BAILEY, Newport News, Va.

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THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXII. No. 8. ALBION, N. Y., AUG. 15, 1915. WHOLE No. 337

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

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SUBSCRIPTION, 50 CENTS PER YEAR.

Examine the number on the wrapper of your Oologist. It denotes the time your subscription expires. Remember we must be notified if you wish it discontinued and all arrearages must be paid. 337 your subscription expires with this issue. 329 your subscription expired with December issue 1914. Other expirations can be computed by intermediate numbers at the rate of one number per month.

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In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpet-Swan. R. M. Barnes, Lacon, Ill.

WANTED—Skins of N. A. Snipe, Plover, etc. in first class shape for mounting. Must be A. I. ARTHUR G. RUECKERT, 2252 N. Kostner Ave., Chicago, Ill. (1-p)

I have a few finely mounted birds on hand to exchange. Who wants them? First class taxidermy work done at lowest prices. LES-TER SPEER, Taxidermist, Bentonville, Ark. (1-p)

WILL EXCHANGE.—Small collection of Idaho bird skins for long focus 4 x 5 folding plate camera box with case and extra holders. HENRY J. RUST, Coeur D'Alene, Idaho, Box 683. (1-p)

TRADE.—18 A. farm. Will take \$175 cash and \$150 in bird skins or eggs or both. If interested write me. W. G. SAVAGE, Delight, Ark. (1-p)

FOR SALE OR EXCHANGE.—Nicely mounted specimens, Ringneck Pheasant, Wood Duck, Barn Owl, California Quail, Single Yellow-head Parrot, and a few others. Might exchange for books on ornithology. Write for description. M. HOFMANN, 1434 Broadway, Brooklyn, N. Y. (1-p)

WANTED to exchange skin or specimens of birds mounted of the East for specimens of Western States. WINCHESTER NATURAL HISTORY MUSEUM, Winchester, N. H.

TROPICAL BIRDS.—Anyone interested in Central American material, communicate with E. O. EHRHART, Box 193, Jonnsburg, Pa. (1-p)

WANTED—Fine skins only of most Sand-pipers. Offer fine sets of eggs, 300a, 412a, 466a, 29, 542a, 567, 584. H. MOUSLEY HATLEY, P. Q. (1-p)

FOR SALE OR EXCHANGE.—A number of desirable mounted specimens. Will exchange for Bird Lore, Auk, Osprey, American Museum Journal or other Ornithological magazines. M. HOFMANN, 1434 Broadway, Brooklyn, N. Y.

I want to exchange for bird skins of 218-226-231-232-292-293-294-295-301-521-443-471. D. V. HEMBREE, Roswell, Ga. (1-p)

FOR EXCHANGE.—Beautifully mounted R. T. Hummingbirds, Scarlet Tanager, Rose-breasted Grosbeak, and 50 varieties, for others or skins. What have you? Also skins, nests and eggs to trade. DR. J. P. BALL, 5001 Frankford Ave., Philadelphia, Pa. (4-p)

FOR SALE OR EXCHANGE.—Nicely mounted specimens. Yellow-rump Loucon, Ringneck Pheasant, Wood Duck, Barn Owl, Cali Quail, single Yellow-head Parrot, and a few others. These are all in good condition. I might exchange for guns or ornithological publications or other mounted specimens. Write for description of my specimens. M. HOFMANN, 674 Jamaica ave., Brooklyn, N.Y.

EXCHANGE.—A number of desirable mounted specimens for Bird Lore, Osprey, Auk, Condor, American Museum Journal or other ornithological magazines. Address MILTON HOFMANN, 674 Jamaica ave. Brooklyn, N. Y.

WANTED.—I want male skins of 666-652b-686, and sub-species of 550. I have eggs of 364. R. P. SHARPLES, West Chester, Pa. (1-p)

Birds, mostly mounted; some skins. Will exchange for desired specimens, if first class. Send stamp and exchange lists promptly. A. RUSSELL SMITH, Edge Hill, Pa.

WANTED.—A skin of a Cockatoo that is in good condition. Please name price for same. Butterflies and Moths exchanged and bought. Please send list. CASPAR G. BURN, Oxford, Pa. (1-p)

Over 400 mounted birds, mammals and reptiles. Eggs in sets. Foreign and United States coins. Columbia stamps, a few sets of St. Louis Exposition unused. Book on raising skunks, 50c. Tanning process, Guinea Pigs. Oologist from about 1888. What can you offer? ALMON KIBBE, Mayville, N. Y. (1-p)

Have a number of very fine mounted Am. Wood Cock. Will exchange for A 1 skins of hawks. Want skins of mounted Spoon-bill Sandpiper. K. W. KAHMANN, 2457 Lincoln Ave., Chicago, Ill.

Anyone wishing to exchange bird skins please send list and I will send my list of duplicates per return mail. J. A. WEBER, Palisades Park, N. J. (1-p)

WANTED.—A 1 Bird Skins also eggs in sets. Send list of what you have to exchange. EDW. E. ARMSTRONG, 207 N. Michigan Av., Chicago, Ill. (1-p)

WHO WANTS SOME CHOICE SKINS OF LOWER CALIFORNIA WATER AND GAME BIRDS? Skins of the best class. Very moderate prices. GEO. PRIESTLY, Garden Grove, Calif. (2-p)

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BELGIUM RELIEF FUND.—I have for sale a set of Peale's Falcon, skin identified and in collection of Mr. Allen Brooks. These eggs are unique. What offer. C. U. GREEN, Care W. F. BURTON, St. Charles St., Victoria, B. C.

FOR SALE CHEAP.—All kinds of California birds, animals, reptiles, insects, fish, etc. Mounted or skins. Also all kinds of eggs. Let me know your wants. R. G. PIERCE, Anderson, Sbaista Co., California. (1-p)

HUMMINGBIRDS.—I have 110 scientific birds' skins from South America, 62 of which are Hummingbirds, such as Turquoise Caliste, Shinning and Blue Honey Creepers, Cotinga, Sabre Wing, etc. Also Motmots, Jacana Colored Swift, Passerino Tanager, Massena Partridge and many other odd and rare skins. Also some mounted specimens. Some of these bird skins for exchange only. This is a good chance to secure some valuable skins at reasonable prices. Most of them are first class in every particular, otherwise I will advise you of their condition before hand. Send for list. These were personally collected by J. H. Batty, M. HOFMANN, 674 Jamaica, Ave., Brooklyn, N. Y.

FOR EXCHANGE.—Bird Skins. Want Hummingbirds only, mounted or skins, nest and eggs of same. EARL HAMILTON, 400 Walnut St., Versailles, Pa.

WANTED.—Living healthy birds of the following species for aviary: Rose-breasted Grosbeak, Eastern and Western Evening Grosbeaks, Eastern and California Pine Grosbeaks, Eastern and Western Blue Grosbeaks, and Pyrrhuloxias. Expenses attendant upon capture of these birds, and fair remuneration will be paid. Write in advance in regard to state permits. Correspond with: F. W. HENSHAW, Redwood City, San Mateo County, California.

EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

Nice data blanks, 100 pages, book form with stubs, 30c. Samples all kinds printing, Arts & Crafts Exchange. J. J. WIRZ, 1422-1424 Gwinnett St., Augusta, Ga.

EGGS, SETS.—A bargain, do not miss it. W. C. WOOD, 179 17th St., Detroit, Mich. (1-p)

TO EXCHANGE.—For eggs in sets. Complete course of lessons in Taxidermy (Standard works), Game Chickens, Cocks and Pullets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE.—Sets from this locality, for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

TO EXCHANGE.—For eggs in sets; one 22 cal. rifle, good condition. Complete course in Taxidermy (N. W. School), one E Flat Alto Horn. Can use many common sets. E. A. WHEELER, East Randolph, N. Y.

FOR EXCHANGE.—European and Asiatic bird eggs in sets with data for eggs of North American species needed for my collection. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR EXCHANGE.—75 eggs, also sets 1-2-1-1 Mississippi Kite, personally collected complete data. All eggs first class. H. S. SOWERS, Brownell, Kan.-as.

WANTED.—Collecting gun and kodak. Offer Raptors in sets, including 329, 341, 345, 347a, 359. D. I. SHEPARDSON, 209 E. 37th St., Los Angeles, Cal (1-p)

EGGS, Continued.

FOR EXCHANGE—A large collection of choice cabinet sets with full and accurate data to the highest bidder. Send for list. DR. M. T. CLECKLEY, 457 Green St., Augusta, Ga.

FOR EXCHANGE—Three sets Rhea darwini 1-6, 1-9, 1-16. Collected by well known Oologist, H. W. CARRIGER, 5185 Trask St., Oakland, Calif.

EGGS—My collection of first class sets. Also Snapping turtle 1-25, 1-28, 1-33, 1-41, 1-45 1-46, five cents per egg. Want sets of Sharp Shinned Hawk, etc. JAMES JOHNSON, 310 North Main, Southington, Conn.

I have a private collection of North American bird's eggs to dispose of, also Silver black, cross and red foxes. A bargain for immediate movement. Write for price list. WALTER R. CAMPBELL, Lobo O. P. Ontario, Canada.

EXCHANGE.—I have one perfect egg (a full set) of the matchless Black Cloud Swift to exchange for the best offer of rarities, or for grouped sets in Raptures, Gallinae, and Limicolae only. This rare egg is now represented in the following collections only, those of John E. Thayer, A. E. Price, A. E. and A. O. Treganza, Frank C. Willard, Henry F. Bailey, and the writer. Exchange value \$200. W. LEON DAWSON, Santa Barbara, Cal.

FOR EXCHANGE.—Farallone eggs with small holes; also 749, 726d and many others. Send your list. H. W. CARRIGER, 5185 Trask St., Fruitvale Sta., Oakland, Calif.

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FOR EXCHANGE.—Sets from the locality for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

FOR EXCHANGE.—207 1-4 348 10-4 4-3 349 1-1 335 3-5 364 10-3 416 1-2 417 1-2 486 1-4 and others. Send list of selected full sets. E. J. DARLINGTON, Wilmington, Del.

WANTED.—Choice sets of numbers 10-131-204-215-352a-372-405 and several warblers. Also common kinds 339-360-540b-542a-546a-597a. Also 328 and 332. Satisfactory remuneration. Old correspondents please write. A. E. PRICE, Grant Park, Ill.

EGGS. Bulwer's Petrel, Iceland Gull, Curlew, Plovers, exchange for Osprey, Bartram Sandpiper, etc. Send lists. Also have some good sets of foreign for sale cheap. H. T. BOOTH, 8 Cranbury Road, Fulham, England.

FOR EXCHANGE.—Strictly first-class personally collected sets of 332-333-339-343 and a few others, to exchange for desirable postage stamps. GEORGE D. FRENCH, Ivoryton, Conn.

Will exchange for desirable of similar rarity, sets of A. O. U. 95, 114.1, 81, 134, 295, 301, 302, 310, 327, 330, 354, 356, 389, 416, 417, 419, 639, 641, 654, 666, 677. THOMAS H. JACKSON, 304 N. Franklin St., West Chester, Pa.

Single sets to exchange—142-316-412-447-489-494-495-501-511-560-519-552-563-581-584-611-622a 652-704-713-719-761-761a-766. Write first. Send list of your exchange numbers. A. O. DURLAND 1242 S. 1st, Evansville, Ind.

TO EXCHANGE. For eggs in sets, fine set of field glasses in leather case. Many common sets wanted. E. A. WHEELER, East Randolph, N. Y.

What am I offered for Snowy Owl 1-7 Amer. Coll.) Swallow-tailed Kite 1-2 Golden Eagle 1-2, 1-3, Duck Hawk 1-4, Black-footed Albatross 1-1? If you don't need them write for my list. A. E. PRICE, Grant Park, Ill.

I have for exchange many fine sets, personally taken, finely prepared, among which are: 6 1-8, 194b 1-5 1-6, 199 1-4, 218 1-8, 219 1-9, 228 1-4, 289b 1-14, 293 1-12, 295 1-13, 300b 1-14, 307 1-9, 310 1-4, 310c 1-15, 331 1-5, 333 1-4, 334a 1-3, 335 1-4, 1-5, 337a 1-3, Texas Red-shoulder 1-3, 1-4, 339 1-3, 340 1-2, 341 1-2, 1-3, 342 1-3, 345 1-2, 347a 1-3, 368b 1-2, 373b 1-4. Send your lists and get my full list. E. F. POPE, Colmesneil, Texas.

TO EXCHANGE.—Two sets of 5 of Sharp-shinned Hawks, No. 1 Eggs. Sets of 12 and 13 of Nothopsocta Perdicaria (Kitt) the wonderful polished eggs of South America. You can see your image in the surface of them. Taken by the Superintendent of the Chilean Agricultural College. Series of American Herring Gull and Caspian Tern. Brand new 16 Shot Winchester rifle (22 caliber). What have you? Would consider good postal size camera. DR. W. A. HART, Lapeer, Mich.

EGGS—A collection to highest bidder. W. C. WOOD, 179 17th St., Detroit, Mich.

For Nova Scotia Birds Eggs and Skins, write to R. W. TUTTS, Wolfville, Nova Scotia.

WHAT DO YOU WANT me to collect for you? Will collect cigar bands, wood, butterflies and sets, or anything. Vol. 30 of Auk for exchange. EARL MOFFAT, Marshall, Texas. (1-p)

WANTED.—Good Taxidermist, close to Texas to exchange Taxidermy work for sets. All correspondence answered. EARL MOFFAT, Marshall, Texas. (1-p)

ON SALE.—Good twelve Gauge, Breech loading shot gun, reloading tools; 32 Gauge Auxiliary Barrel tools, shells, (no Extractor); five dollars cash ten dollars exchange (eggs) net. Buffalo bones (guaranteed) seven cents to sixty; one skull (no horns) \$1.60, net. Porcupine quills, seven cents per dozen. Others up to forty cents, stamps, over forty cents, postal order. KALE THOMPSON, Box 175, Irving, Kansas. (1-p)

WANTED THE FOLLOWING SETS—Purple Sandpiper 2-4, American Bittern N-4 American Golden Plover N-4, Bonapartes Gull N-3, Greater Yellow-legs 1-4. Will give in exchange Sets Mounted birds and skins. Live Northern Birds supplied. PORTAGE WILD ANIMAL CO., Portage La Prairie, Manitoba, Can. Box 223.

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To exchange for stone relics several copies of Harpers Illustrated Weekly from 1860 to 1873. L. A. PARRE, Batavia, Ill.

WANTED—Indian Relics for cash or exchange. Also finely mounted specimen birds. DR. A. E. PAYNE, Riverhead, N. Y. (1-p)

FOR SALE.—Good substantial bird houses for Wren, Blue Birds, etc. Post paid, for 50 cents. R. B. KIDDER, Columbus, Wis.

MISCELLANEOUS.

WANTED.—Type and printer's supplies. Have Natural history, medical and other books, skins for mounting, mounted specimens, fishing tackle, shells, minerals, battery, massage machine. J. J. WIRZ, Taxidermist, Augusta, Ga. (1-p)

WANTED.—A pair of calipers marked in hundredths and any copies of the "Iowa Ornithologist." Also have a few common sets to exchange. EMERSON STONER, 432-38th St., Oakland, Calif. (1-p)

FOR EXCHANGE.—Butterflies and moths for eggs in sets or others, many common ones wanted. Would like a copy of "The Butterflies of the West Coast." JOHN GRAVES, 1057 62nd St., Oakland, Cal. (1-p)

WANTED.—To correspond with parties in Arizona and New Mexico who would collect Beetles for me for cash or exchange. W. E. SNYDER, Beaver Dam, Wis. (1-p)

WANTED AT ONCE.—A specimen or the Red Fox in fine winter fur. Also skin or mounted specimen of the Varying Hare of Snow Shoe Rabbit in brown summer fur. A pair of Bald Headed Eagles in the down is also desired. Address, stating price, DIRECTOR, THE CHICAGO ACADEMY OF SCIENCES, Lincoln Park, Chicago, Ill. (1)

FOR SALE.—I have a fine line of arrows and spears from Grime County, Texas. Send \$1.00 for a dozen perfect arrows. GEORGE E. DOERGE, Navasota, Texas, Box 484. (1-p)

Brazilian Beetles and small showy shells wanted. Will give skin of Snowy Owl, eggs, butterflies or cash. GEORGE ROSSITER, 52 Tiverton Ave., Toronto, Canada. (1-p)

FOR EXCHANGE.—Alligator eggs, also Limpkin and lather back turtle eggs. NAT. P. FRY, Eureka, Marlon Co., Florida. (1-p)

FOR SALE AND EXCHANGE.—Live Snakes, Lizards, Baby Turtles, also general line of Florida insects. NAT. P. FRY, Eureka, Marion County, Florida. (1-p)

For Collectors, a fine collection of specimens, all large and very fine, one Chnstolite Tourquoix Matrix, Toursonite Tourmaline, Californite, Kuzite, Semi Opal, Amazon Stone, Opal Wulfenite. Opals are very fine, will sell for \$5.00 cash with order. E. W. KELLY, Box 186, Seneca, Ill. (1-p)

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WANTED.—A high grade camera, 5x7 preferred. Offer in exchange fine sets, high grade Ithaca hammerless gun, any gauge, new from factory; or part cash. E. F. POPE, Colmesneil, Texas.

Bird Skins, animal skins and cleaned skulls eggs in sets and named Coleoptera to exchange for stamps not in my collection. W. E. SNYDER, 309 De Clark St., Beaver, Dam Wis.

Perfect, and well mounted specimens of North American moths and butterflies offered in exchange for North American bird skins. PHILIP LAURENT, 31 East Mt. Airy Ave., Philadelphia, Pa.

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WANTED.—A good Stereopticon Lantern for which I will give good exchange in sets or bird magazines and books. Anyone having such please communicate with ARTHUR W. BROCKWAY, Hadlyme, Conn.

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WANTED.—For cash, Osprey Vol. I Nos. 2 and 4; Vol. III Nos. 8-9-10-11-12. Also need many numbers of Bird Lore, Oologist, etc Send list of duplicates and receive mine. R. W. GLENN, Room 107 Penna. Sta., Pittsburgh, Pa. (1-p)

FOR EXCHANGE.—For cash, to best offer; Newman's British Moths and Newman's British Butterflies, Condition good. Inquiries answered. CHRIS FIRTH, Durham, Ont., Canada. [1-p]

WANTED.—O. & O. of Mass., Vol. X and XI; The Museum, Vol. IV, Nos. 8, 9, 10, 11, 12; Vol. V Nos. 1, 7, 11; Vol. VI, Nos. 1, 2, 3; Bird Lore, Vol. XI, Nos. 1, 5. The Taxidermist of Medina, Ohio, Vol. I, Nos. 1, 2. CHAS. W. TINDALL, Independence, Mo. [1-p]

FOR SALE OR EXCHANGE.—Bird Lore, Volumes 8 and 16 inclusive, complete. Perfect condition. W. J. ERICKSEN, 208 W. 40th St., Savannah, Ga. (1-p)

Have you any bird magazines to exchange? Send list of duplicates and receive mine. J. L. SLOANAKER, Palisades, Col. Box 402.

FOR SALE.—The following Bird Lore: Vol. III No. 6 (without index); Vol. IV Nos. 3-4-5-6 (with index); Vol. VII Nos. 2-3-4-5-6 (with index); Vol. VIII No. 2. LEWIS DEXTER, 1889 Elm St., Manchester, N. H. (1-p)

FOR SALE.—Cheap for cash. Standard Library of Natural History; leather; new; 5 volumes; hundreds of illustrations. EARLE R. FORREST, 261 Locust Ave., Washington, Pa.

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Fine specimens of the beautiful Abert's Squirrel, and other mammals, for mounting Will exchange for books on natural History if in good condition. J. STOCKLY LIGON, Chloride, N. Mex. (1-p)

FOR EXCHANGE.—Courvier's Natural History plates, complete, in good condition. Want eggs of North American birds only. State what you have in first letter. G. R. OSSIGNOL, Jr., Savannah, Georgia.

WANTED.—Cone's Key N. Am. Birds, fifth edition; back numbers of Condor, Auk and Bird Lore, A. O. U. Check List. ALBERT LANO, Fayetteville, Ark. (1-p)

The July number of The Oologist contains Frank L. Burns' Bibliography of scarce or out of print North American Amateur and Trade Periodicals devoted more or less to ornithology.

This has taken more than two years to produce and is a monumental effort on the subject. It will be invaluable as for reference and as a checking list in the futuer and only a limited number of copies have been printed. If you want extra copies send in your order; otherwise it may be too late. Price 25 cents.

WANTED—Volume II of *The Auk*, either bound or unbound for which I offer cash or other ornithological works in exchange. W. OTTO EMERSON, Palm Cottage, R. F. D. Haywards, Calif.

FOR SALE.—Chapman's *Handbook Eastern Birds*, 1904. Text clean; covers slightly worn. \$1.75 prepaid. CHARLES L. PHILLIPS, 5 West Welr St., Taunton, Mass.

WANTED.—Ornithologist and Oologist Vol. 1-5, Osprey Vol. 1, No. 2 and 4, Bulletin Cooper Club, Vol. 1 No. 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR SALE.—For the best cash offer Recreation Vol. 6 to 23 (18 vol.) in good condition. E. B. JOHNSON, Hebron, Maine, R. R. 1.

FOR EXCHANGE.—National Geographic magazines for good sets of any birds of prey. Write, stating what you have. S. V. WHARRAM, Austinburg, O. (1-p)

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals (mostly Ornithological) to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. (2-p)

FOR EXCHANGE.—Back numbers Oologist, Osprey, American Ornithology, Museum, etc. Also first class sets to exchange for desirable postage stamps. GEORGE D. FRENCH, Ivoryton, Conn. (1-p)

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A Magazine of Western Ornithology

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Edited by J. Grinnell and Harry S. Swarth

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THE OÖLOGIST.

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VOL. XXXII. No. 9. ALBION, N. Y., SEP. 15, 1915. WHOLE No. 338

BRIEF SPECIAL ANNOUNCEMENTS

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FOR SALE.—Complete file of the Oologist, Vol. I to Vol. 32 No. 337 (last issue) unbound. Price \$25.00 cash. Address Smith & Zimmerman, 30 Lexington Ave., New York City, N. Y.

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WANTED. O. & O. of Mass. Vols. X and XI. The Museum Vol. IV, Nos. 8, 10, 11, 12. Vol. XI, No. 5. The Taxidermist of Medina, Ohio. Vol. I, No. 1. CHAS. W. TINDALL, Independence, Mo.

FOR SALE.—Reeds' Land and Water Birds in one volume, excellently bound in black leather, \$2.50 postpaid; slightly used. If unsatisfactory return week after purchase. RALPH R. WILSON, Jonesburg, Mo., P. O. Box 48.

WANTED.—Volume II of The Auk, either bound or unbound for which I offer cash or other ornithological works in exchange. W. OTTO EMERSON, Palm Cottage, R. F. D. Haywards, Calif.

FOR SALE.—Chapman's Handbook Eastern Birds, 1904. Text clean; covers slightly worn. \$1.75 prepaid. CHARLES L. PHILLIPS, 5 West Weir St., Taunton, Mass.

WANTED.—Ornithologist and Oologist Vol. 1-5, Osprey Vol. 1, No. 2 and 4, Bulletin Cooper Club, Vol. 1 No. 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

FOR SALE.—For the best cash offer Recreation Vol. 6 to 23 (18 vol.) in good condition. E. E. JOHNSON, Hebron, Maine, R. R. 1.

FOR EXCHANGE.—National Geographic magazines for good sets of any birds of prey. Write, stating what you have. S. V. WHARHAM, Austinburg, O. (1-p)

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals [mostly Ornithological] to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. (2-p)

FOR EXCHANGE.—Back numbers Oologist, Osprey, American Ornithology, Museum, etc. Also first class sets to exchange for desirable postage stamps. GEORGE D. FRENCH, Ivoryton, Conn. (1-p)

FOR SALE.—Nidologist, Vol. 1, 2, 3, 4, bound \$7.50. Oologist Vols. 1 to 25 inclusive \$25.00. Osprey, Vols. 1, 2, 3, \$5.00. Many others; all delivered. A. E. SCHFUZE, 1108 Blanco St., Austin, Texas.

BOOK INFORMATION WANTED.—Will every owner of Complete files of The Auk look at the first six volumes and see if they have the Autograph of my father (H. B. Bailey) on the front page? If you know of their whereabouts, communicate with me, and oblige. H. H. BAILEY, Newport News, Va.

BOOKS.

FOR EXCHANGE.—National Geographic and other Natural History and Popular magazines for Bird Lore, Auk, and Bird's eggs. A. W. CASTELLANOS, 259 Armstrong Ave., Jersey City, N. J.

FOR SALE.—Bird Lore Vols. 1 to 16 inclusive in original wrappers, also vols. 1-2-3-4 in red cloth gilt tops, will sell set complete or will sell any volume or any single issue for the best offer. Birds and Nature Vols. 6 to 19 inclusive, except Vol. 9. Osprey Vols. 4 and 5 bound and many odd issues. Bendires Life Histories, Vol. 1 in original paper covers. Vol. 2 rebound in half morocco. Good as new. J. N. SWIFT, Stockport, Ohio. (1-p)

WANTED FOR CASH.—The Condor, Vol. 1 to IV; The Auk, Vols. I to X; The Osprey, Vol. I to II; The National Geographic Magazine, Vol. I to XVII; Nature and Culture Vol. I. LAURA KEAN, Stockport, O. (2-p)

WANTED.—Books, Magazines and Pamphlets about Birds and Natural History subjects. In all cases state what you have and the lowest cash prices. No other prices considered. Address FRANK BENDER, 128 Fourth Ave., New York City. (3-14)

FOR SALE.—Large number of magazines, Ornithological and Botanical Scientific and Exploration notes. Purchaser must take the lot. Snap, \$15.00 postpaid. Send for list. GUSS CROSSA, Suite 1, Purvis Block, Edmonton, Alta. (1-p)

WANTED.—The Auk, Volume IV (1887). Will pay cash or exchange other publications for same. HARRY C. OBERHOLSER, 1444 Fairmont St., N. W. Washington, D. C. (1-p)

WANTED.—Oregon Naturalist Vol. I, Nos. 2-12, Vol. II, No. 1, Bulletin of the Cooper Club Vol. I, Nos. 2-3-5, and Nidologist Vol. 1. Offer good exchange in skins or magazines. STANLEY G. JEWETT, 582 Bidwell Ave. Portland, Oregon. (1-p)

WANTED.—Oologist, Vol. 4, No. 1; Vol. 6, No. 4; Birds and Nature, Index to Vol. 2; Osprey, Vol. 3, Nos. 8-9-10; Vol. 5, Nos. 2-5-7-9; N. S. Nos. 2-4-7. Nidologist, Vol. 1, Nos. 1-2-3-5-6; O. & O. Vol. VIII, all. American Ornithology, Vol. 4, Nos. 1-4-9; Vol. 6, Nos. 3-6; O. & O. Semi-annual, Vol. 2 No. 1. Wilson Bulletins for years 1896 to 1899 inclusive. Bird Lore, Vol. 1, Nos. 2-3-4; Vol. 13 Nos. 1-2-3; Vol. 15 No. 6. LAUREN TREMPER, No. 136 Dewey St., Philadelphia, Pa. (1-p)

FOR SALE OR EXCHANGE Bird Lore's for sale or exchange for any set of Raptore's. Most of them do not contain any colored plates. R. LOZIER, Attica, Ohio.

EXCHANGE.—January, February, March, Bird Lore, 1913, for Nos. 306-307-309-310-311-312-313-314 of The Oologist or some Bird books. GRANT HALEY, Springford, Ontario. (1-p)

Frank L. Burns' Bibliography of scarce or out of print North American Amateur and Trade Publications in existence. Price 25c. R. M. BARNES, Lacon, Ill.

FOR EXCHANGE.—Sets from this locality for sets from the south, middle and west. Send your list and get mine. EDWARD S. COOMBS, 243 Franklin St., Boston, Mass.

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R. M. BARNES,

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THE CONDOR

**A Magazine of Western
Ornithology**

Published Bi-monthly by the

Coopér Ornithological Club of California

Edited by J. Grinnell and Harry S. Swarth

"The Condor" is strictly scientific but edited in such a way that a beginner of "Bird Study" can easily understand it.

The articles in "The Condor" are written by the leading Ornithologists of the United States and are illustrated by the highest quality of half tones.

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R. M. BARNES,

Lacon, Ill

THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMISTRY

VOL. XXXII. No. 10. ALBION, N. Y., OCT. 15, 1915. WHOLE No. 339

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

TAKE NOTICE.

SUBSCRIPTION, 50 CENTS PER YEAR

Examine the number on the wrapper of your Oologist. It denotes the time your subscription expires. Remember we must be notified if you wish it discontinued and all arrearages must be paid. 339 your subscription expires with this issue. 329 your subscription expired with December issue 1914. Other expirations can be computed by intermediate numbers at the rate of one number per month.

Entered as second-class matter December 21, 1903, at the post office at Albion, N. Y., under the Act of Congress of March 3, 1879.

In answering advertisements in these columns mention "The Oologist," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpeter Swan. R. M. BARNES, Lacon, Ill.

WANTED.—To correspond with Florida and northeastern gulf coast collectors of birds' skins. A. B. HOWELL, Covina, Cal.

WILL EXCHANGE.—Small collection of Idaho bird skins for long focus 4 x 5 folding plate camera box with case and extra holders. HENRY J. RUST, Coeur D'Alene, Idaho, Box 683. (I-p)

SPECIAL NOTICE.—I have decided to partially reduce my large collection of eggs and am prepared to negotiate with those having perfectly prepared bird skins. In starting this collection of bird skins I shall exercise just as much care as I have in accumulating birds' eggs, and those who have dealt with me know that I am extremely particular in this respect. I would like to hear from all those who have any bird skins to offer. Nothing exceeding eight inches in length is desired. I particularly want males of the various woodpeckers, starlings and buntings. G. A. ABBOTT, 1543 E. 61st Street, Chicago, Illinois.

Having completed my collection of N. A. Warbler's eggs, I have now decided to procure a perfect skin of each species, male only, in full plumage. I will give exceptional value for these, especially the western forms. G. A. ABBOTT, 1543 E. 61st St., Chicago, Ill.

We are anxious at all times to secure rare bird skins and eggs. Send us a list of your list of material and of your wants. We can offer at present specimens as the Ivory-billed Woodpecker, Passenger Pigeon, Scarlet Ibis, Blue-headed Quail Dove, White and Gray Gyrfalcons, Black-capped Vireo, Golden-cheeked Warbler and soon. Write us today. WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.

EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

Nice data blanks, 100 pages, book form with stubs, 30c. Samples all kinds printing. Arts & Crafts Exchange. J. J. WIRZ, 1422-1429 Gwinnett St., Augusta, Ga.

EGGS, Continued.

Steel Specimen Cases, absolutely dust and insect proof. Designed for bird or mammal skins, or birds' eggs. For specifications and prices write W. HUBER, Gwynedd Valley, Pa.

I am always wanting lists of entire collections of North American Birds' Eggs which the owners desire to dispose of. None are too large and none are too small if they contain any material that I need. R. M. BARNES, Lacon, Ill.

FOR EXCHANGE.—A pair of Eastern Model climbers and a few sets each of 289, 412, 498, 506, 511, 593, 601, 622 and 631 for birds eggs. R. C. MARTIN, Jr. Albemarle, La.

A 1 sets for exchange:—53 1-3, 191 2-4, 201 2-4, 208 1-12, 221 1-9, 336 2-3, 412 1-6, 412a 1-6, 456 1-5, 461 2-3, 477 2-4, 488 2-5, 494 2-5, 563 1-4, 584 3-4, 613 1-5, 705 1-5, 725 2-5, 529 2-5, 619 2-5 4-4 eggs with small holes wanted. WALTER A. GOELITZ, 504 John St., Champaign, Ill.

MISCELLANEOUS.

WANTED.—Type and printer's supplies. Have Natural history, medical and other books, skins for mounting, mounted specimens, fishing tackle, shells, minerals, battery, massage machine. J. J. WIRZ, Taxidermist, Augusta, Ga. (1-p)

WANTED.—A pair of calipers marked in hundredths and any copies of the "Iowa Ornithologist." Also have a few common sets to exchange. EMERSON STONER, 432-38th St., Oakland, Calif. (1-p)

FOR EXCHANGE.—Butterflies and moths for eggs in sets or others, many common ones wanted. Would like a copy of "The Butterflies of the West Coast." JOHN GRAVES, 1057 62nd St., Oakland, Cal. (1-p)

WANTED.—To correspond with parties in Arizona and New Mexico who would collect Beetles for me for cash or exchange. W. E. SNYDER, Beaver Dam, Wis. (1-p)

WANTED AT ONCE.—A specimen or the Red Fox in fine winter fur. Also skin or mounted specimen of the Varying Hare or Snow Shoe Rabbit in brown summer fur. A pair of Bald Headed Eagles in the down is also desired. Address, stating price. DIRECTOR, THE CHICAGO ACADEMY OF SCIENCES, Lincoln Park, Chicago, Ill. (1)

FOR SALE.—I have a fine line of arrows and spears from Grime County, Texas. Send \$1.00 for a dozen perfect arrows. GEORGE E. DOERGE, Navasota, Texas, Box 484. (1-p)

Brazilian Beetles and small showy shells wanted. Will give skin of Snowy Owl, eggs, butterflies or cash. GEORGE ROSSITER, 52 Tiverton Ave., Toronto, Canada. (1-p)

WANTED.—A high grade camera, 5x7 preferred. Offer in exchange fine sets, high grade Ithaca hammerless gun, any gauge, new from factory; or part cash. E. F. POPE, Colmesneil, Texas.

Bird Skins, animal skins and cleaned skulls eggs in sets and named Coleoptera to exchange for stamps not in my collection. W. E. SNYDER, 309 DeClark St., Beaver, Dam Wis.

FOR EXCHANGE.—Alligator eggs, also Limpkin and lather back turtle eggs. NAT. P. FRY, Eureka, Marion Co., Florida. (1-p)

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Make me offers on fine Sea Lion skins for mounting, also Sloth Bear from India. WIRZ, TAXIDERMIST, 1422 Gwinnett, St., Augusta, Ga.

FOR SALE.—5 x 7 photographs of the nests and eggs of 26 species of birds of this locality. Mr. I. E. Hess says they are as good as he has seen. Send 40c in stamps for one. E. PERRY, 610 Baylor St., Austin, Texas.

WANTED.—A good Stereopticon Lantern for which I will give good exchange in sets of bird magazines, books and mounted birds. Anyone having such please communicate with ARTHUR W. BROCKWAY, Hadlyme, Conn.

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Frank L. Burns' Bibliography of scarce or out of print North American Amateur and Trade Publications in existence. Price 25c. R. M. BARNES, Lacon, Ill.

Send for lot of Ornithological, Scientific and Botanical magazines. These are offered at a bargain to the first one that takes them. G. CROSSA, Suite No. 1, Purvis Bldg., Edmonton, Alta.

FOR EXCHANGE.—Back volumes of the Auk in original cover; also American and foreign bird skins for A. J. skins of Western and foreign birds. HENRY K. COALE, Highland Park, Ill.

WANTED.—Books, Magazines and Pamphlets about Birds and Natural History Subjects. In all cases state what you have and the lowest cash prices. No other prices considered. Address FRANK BENDER, 128 Fourth Ave., New York City. (3-14)

TO EXCHANGE.—I have 1000 duplicates of Scientific periodicals [mostly Ornithological] to offer for Ornithological publications, bird skins, eggs or cash. FRANK L. BURNS, Berwyn, Pa. [2-p]

WANTED.—For cash, Osprey Vol. I Nos. 2 and 4; Vol. III Nos. 8-9-10-11-12. Also need many numbers of Bird Lore, Oologist, etc. Send list of duplicates and receive mine. R. W. GLENN, Room 107 Penna. Sta., Pitts burgh, Pa. (1-p)

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R. M. BARNES,
 Lacon, Ill

1916

The Oologist for 1916 will continue along the same lines as in the past.

Our friends can help us enlarge our subscription list and thereby enlarge their sphere of influence and acquaintance; for THE OOLOGIST is published for the benefit of its friends. They can, through and by its columns, keep up an acquaintance with the active bird students or collectors that can be reached in no other way.

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R. M. BARNES,
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THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXII. No. 11. ALBION, N. Y., Nov. 15, 1915. WHOLE No. 340

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EXCHANGE.—Having lately unpacked my collection of birds and mammal skins, which have been stored several years, I can offer fine skins of water fowl, Marsh Rabbit and other species found in this section, in exchange for sets of eggs, or books on ornithology and mammalogy. H. H. BAILEY, Newport News, Va.

You will please discontinue my ads. in The Oologist, as I have completed my files of the publications asked for. Louis S. Kohler.

EGGS.

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WANTED.—All sets of my taking except Nos. 316, 326, 373b, 443, 452, 506, 511b, 552, 593, 601, 663, 703, 719c. ELTON PERRY, 610 Baylor St., Austin, Texas.

WANTED.—A good Graflex Camera, either 4 x 5 or 5 x 7. Will give good exchange in sets, mounted birds, back volumes to Auk, Oologist, Condor and books on birds, ARTHUR W. BROCKWAY, Hadlyme, Conn.

COLLECTORS ATTENTION.—A couple interested in Natural History who desire to spend the winter in the South, can act as care-takers on farm in Virginia. Six room house, fire wood, and milk given, and a chance to collect. No pay. If interested address HAROLD H. BAILEY, 319 54th St., Newport News, Va.

FOR EXCHANGE.—5 x 7 photographs of nests with eggs of 26 species of this locality with full sets of eggs of all common species on basis of 40 cents each. These are extra good photos. ELTON PERRY, 610 Baylor St., Austin, Texas.

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THE OÖLOGIST.

BIRDS--NESTS--EGGS

TAXIDERMY

VOL. XXXII. No. 12. ALBION, N. Y., DEC. 15, 1915. WHOLE No. 341

BRIEF SPECIAL ANNOUNCEMENTS

Wanted, Exchange, For Sale, Etc., inserted in this department at 25 cents for each 25 words for one issue; each additional word 1 cent. No notice inserted for less than 25 cents.

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In answering advertisements in these columns mention "*The Oologist*," and thereby help us, as well as the advertiser and yourself.

We will not advertise the skins, nests, eggs, or mounted specimens of North American Birds for sale. These columns are for the use of those desiring to make bona fide exchanges of such specimens for scientific collecting purposes only.—EDITOR.

BIRDS

WANTED—Live American Wild Trumpeter Swan. R. M. BARNES, Lacon, Ill.

WANTED.—To correspond with Florida and northeastern gulf coast collectors of birds' skins. A. B. HOWELL, Covina, Cal.

WILL EXCHANGE.—Small collection of Idaho bird skins for long focus 4 x 5 folding plate camera box with case and extra holders. HENRY J. RUST, Coeur D'Alene, Idaho, Box 683. (1-p)

SPECIAL NOTICE.—I have decided to partially reduce my large collection of eggs and am prepared to negotiate with those having perfectly prepared bird skins. In starting this collection of bird skins I shall exercise just as much care as I have in accumulating birds' eggs, and those who have dealt with me know that I am extremely particular in this respect. I would like to hear from all those who have any bird skins to offer. Nothing exceeding eight inches in length is desired. I particularly want males of the various woodpeckers, starlings and buntings. G. A. ABBOTT, 1543 E. 61st Street, Chicago, Illinois.

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We are anxious at all times to secure rare bird skins and eggs. Send us a list of your list of material and of your wants. We can offer at present specimens as the Ivory-billed Woodpecker, Passenger Pigeon, Scarlet Ibis, Blue-headed Quail Dove, White and Gray Gyrfalcons, Black-capped Vireo, Golden-cheeked Warbler and soon. Write us today. WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.

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EGGS.

In sending in your exchange notices for nests, skins and eggs, we would appreciate it if you would arrange the numerals in your exchange notice in their numerical order, and not tumble them together hit and miss, as some of our readers are complaining, and we think justly so.

Nice data blanks, 100 pages, book form with stubs, 30c. Samples all kinds printing, Arts & Crafts Exchange. J. J. WIRZ, 1422-1423 Gwinnett St., Augusta, Ga.

Steel Specimen Cases, absolutely dust and insect proof. Designed for bird or mammal skins, or birds' eggs. For specifications and prices write W. HUBER, Gwynedd Valley, Pa.

I am always wanting lists of entire collections of North American Birds' Eggs which the owners desire to dispose of. None are too large and none are too small if they contain any material that I need. R. M. BARNES, Lacon, Ill.

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WANTED.—All sets of my taking except Nos. 316, 326, 373b, 443, 452, 506, 511b, 552, 593, 601, 663, 703, 719c. ELTON PERRY, 610 Baylor St., Austin, Texas.

WANTED.—A good Graflex Camera, either 4 x 5 or 5 x 7. Will give good exchange in sets, mounted birds, back volumes to Auk, Oologist, Condor and books on birds. ARTHUR W. BROCKWAY, Hadlyme, Conn.

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WANTED.—Ornithologist and Oologist Vol. 1, No. 2 and 4. Bulletin Cooper Club, Vol. 1 No. 3. Address with price. C. W. CHAMBERLAIN, 36 Lincoln St., Boston, Mass.

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WANTED.—"The Auk," Vols. I and VI (inclusive) odd volumes or odd numbers. W. LEE CHAMBERS, Eagle Rock, Los Angeles County, California.

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Published Bi-monthly by the

Cooper Ornithological Club of California

Edited by J. Grinnell and Harry S. Swarth

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Editor, R. M. Barnes, Lacon, Ill.; Managing Editor, R. M. Barnes, Lacon, Ill.; Business Manager, R. M. Barnes, Lacon, Ill.; Publisher, R. M. Barnes, Lacon, Ill.

Owner, R. M. Barnes, Lacon, Ill.
Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities: None.

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(Seal) ERNA THIEDOHR,
Notary Public.

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