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THE

ORNITHOLOGIST

AND

OÖLOGIST.



YOL. VII. 1882.

BIRDS: THEIR NESTS AND EGGS.

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JOSEPH M. WADE,

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OF THE

IMMORTAL WILSON,

THE ILLUSTRIOUS AUDUBON,

AND THE

DEVOTED NUTTAL.

ORNITHOLOGIST AND OOLOGIST.

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ORNITHOLOGIST AND OOLOGIST.

PREFACE. *

The object of this magazine is to collect and disseminate a knowledge of Bird Life, and cultivate a desire for observation in Ornithology and Oology in the rising generation, and place on record their discoveries and observations. It will sustain the taking of specimens when necessary for identification, also for collections when from regions of plenty, but it will suggest other methods of identification equally practicable to those who object to destroying life, and cultivate a love of bird life about our homes, and a desire to increase rare birds by introduction rather than kill off those that venture among us. It will avoid the technical as much as possible, and make itself fully understood by the general reader.

JOS. M. WADE.

Beston, Mass., Jan. 1, 1883.

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VOL. VII.

NORWICH, CONN., APRIL, 1882.

NO. 14.

Clarke's Crow.

CAPT. CHAS. E. BENDIRE, U. S. A.

Although the Clarke's Crow or Nuteracker (Picicorvus columbianus Bonap) is a widely distributed bird, being found in considerable numbers in all suitable localities from the eastern slopes of the Rocky Mountains to the Sierra Nevadas on the west and from Sitka Alaska on the north to the mountainous portions of Arizona and New Mexico on the south, there are few birds found in our Avifauna about whose nesting habits we had less positive information, and whose eggs remained so long unrepresented in our largest collections, by even a single specimen, till I was fortunate enough to obtain the nest and eggs of this species, in the Spring of 1876, near Fort Harney, Oregon.

It is now something like twelve years since I first became earnestly interested in Oology, and during these years I have taken many rare sets of eggs, not a few of these new to science, and I believe I can honestly say that I have no specimens in my collection which have cost me so much labor and searching to obtain them, than the eggs of this species have done. However, at the same time, I felt more genuine gratification after finding them, and I was well repaid for all the labor expended from the knowledge that these eggs had been especial desiderata and searched for many years unsuccessfully, till I had finally succeeded where many noted ornithologists had failed before me.

I met with these birds for the first time during the early part of the Winter of '74'75, near Fort Harney. Oregon, to which post I had been assigned to duty a short time previously, and well do I recollect even now the tramp I had after the first specimen I secured. The bird was a complete stranger to me—I took it to be some new and undescribed woodpecker—and I was determined to have it. The snow, by the way, was something like two feet deep, which made walking anything but pleas-The bird seemed to know exactly how far my gun would reach, and kept just far enough out of the way, leading me from tree to tree for fully two hours, till by a lucky chance I secured it with a snap shot while it was in the act of doubling on When I picked it up I still thought that I had secured quite a prize and fondly hoped it would prove a new species, but after getting home, although wet and tired, it took me but a short time to locate the specimen and to find out that it was already well known, but that its eggs remained almost unknown, and I determined to discover these at least, should the birds be found in the vicinity during the breeding season.

For some reason not easily explained I had come to an almost positive conclusion that Clarke's Crow nested in hollow trees, and as they act in many respects like certain of our woodpeckers and frequented the juniper groves fully as much as the pine timber this seemed plausible enough. The finding of several young birds of this species but a few days out of their nest on May 5, 1875, sitting on the branches of a large juniper, in the trunk of which I found a cavity filled with rubbish, and

which evidently had been used as a nesting site by either a sparrow hawk or redshafted flicker the previous season further confirmed me in this view, and caused me to jump at the conclusion that the young birds I saw on that tree clamoring for food had been raised in this very nest. Judging from their size they had left it about a week previously, and I concluded that in order to find eggs I must commence looking for them at least a month earlier or about April 1st, and gave up further search for the season. I waited impatiently for the opening of the season of 1876, which was a very late one. To make sure I started on a systematic search for the nests of these birds as early as March 20th, the snow being at the time from two to four feet deep in the localities frequented by them. During the next four weeks I made at least a dozen trips to the haunts of these birds and I believe I examined every hollow tree and woodpecker hole known to me within a radius of eight miles of the post, the trees examined being mostly junipers. As I found nothing in them, other species of birds not having commenced nesting yet, and being positive that the Clarke's Crow was then breeding somewhere in the immediate vicinity, from seeing a few about constantly I commenced to examine the pine trees growing amongst the junipers on the outskirts of the forest proper. I saw nothing as I thought which might be taken for a bird's nest in any of the pines (Pinus ponderosa), but noticed now and then a round bunch or ball composed seemingly out of the long hypnum moss taken from the trees themselves in some of them, which I supposed to be squirrels' nests, particularly as the little Fremont's chickaree (Sciurus hudsonicus fremonti, Allen) is quite commonly found in this vicinity. As the majority of these quasi squirrels' nests were by no means easily got at, and having tried to start their occupants with sticks, stones and now and then even with a load of shot

and failed invariably to bring anything to light, I ceased to trouble myself any further about them, and more puzzled than ever was about to give up the search when on April 22d I saw a Clarke's Crow flying quietly and silently out of a large pine tree about fifty yards in front of me. This tree had a rather bushy top, was full of limbs almost from the base and easy to climb. As I could not see into the top I climbed the tree, failing to find any sign of a nest therein, and completely disgusted I was preparing to descend again when I noticed one of the supposed squirrel's nests near the extremity of one of the larger limbs about the centre of the tree and about twenty-five feet from the ground. and setting therein, in plain view from above, not a squirrel but a veritable Clarke's Crow.

Well, so I had found their nest at last, quite unexpectedly, and not any too soon, either. As it was, I was almost too late, for the nest contained a young bird just hatched and two eggs with the shells already chipped and on the point of hatch-However, as even damaged specimens, particularly rare ones like these were, are better than none, I took them along but left the young bird in the nest. The parent bird allowed me to almost lay my hand on her before she fluttered off, and I had scarcely gotten two feet from the nest before she was on it again. During the whole time she remained perfectly silent. Not half an hour after finding the first, I had found a second nest which contained three young birds perhaps a week old. These I sacrificed to science, making a skin of one and preserving the other two in alcohol. They are now, as well as the nest, deposited in the National Museum at Washington, D. C. Between April 24th and 30th, '76, I found at least a dozen more nests; these, however, contained all young in different stages of growth, some of them nearly large enough to leave the nest. Each of these contained but three young. Although I obtained but the two eggs mentioned during the season of '76, I consoled myself with the thought that now I knew where to look for the nests of Clarke's Crow, I would have no difficulty in finding all the eggs I wanted during the coming season, and fondly counted on adding a fine series of at least a dozen sets to my collection in the near future. In this I was mistaken, however, and I am still waiting for the chance to do it.

[Concluded Next Month]

Notes from Centre Lisle, N. Y.

I presume you remember my inquiry last Winter about the Wood Sparrow and your reply. I don't know its scientific name and the only mention of this bird in print that I have seen is in Studer's Birds of N. A., page 84. I have found but one man, a taxidermist, who pretended to know this sparrow. He showed me a stuffed specimen but did not know its scientific name. I have seen the one he pointed out for two or three weeks in Spring time for several years. Its song is certainly very sweet. The 15th of last April I shot a singer of this Wood Sparrow, and took down the following description: Length 51 inches, extent of wings 9 inches. Color, top of head and upper breast, chestnut, back and wings brown, two white bands across latter under parts, light neck, throat, and over eyes ashy blue, upper beak black, under beak yellow. Will any of this help you to recognize the species?

Notes from Florence Springs, M. T.

May 20.—Saw the eggs of the Sickle Billed Curlew at a stage station near Ft. Benton. May 25.—Found a Western Field Lark's nest in process of construction. June 6.—Found the nest of a Brewer's Blackbird with four eggs. June 21.—Brewer's Blackbird with four eggs and two eggs of the Cow Bird. June 21.—Found Field Plover's nest with young just breaking through. June 29.—The eggs in the Brewer's

er's Blackbird's nest found June 12, just hatched. July 16.—Found nest of Field Lark with four eggs, and with the shells just cracked. I have found three nests of the Brewer's Blackbird, two that were on the ground, and the one found June 21st, was about eight inches above the ground in a small shrub on the bank of a small stream. All of these nests were found in a small valley near the head of the Dearborn River, Montana Territory.—Jas. M. Croft.

Red-headed Woodpeckers.

This bird is a rare visitor in this vicinity, seldom more than one or two being seen during the season, and then only while migrating, usually in the Fall, but very rarely in the Spring. The first one observed this season was on the 10th of September. On the 12th I saw three, and on the 20th I saw one. Early on the morning of the 24th of September they began to pass over in large numbers, and continued to pass until about ten o'clock, after which very few were seen, except straggling groups of three or four, and occasionally a single one was seen to pass over during the day. The flight must have consisted of several hundred, principally young birds. They came from the east and were flying west. Many of them in their flight would alight for a few minutes in the orchards and corn fields to feed on the half-ripened corn, or search among the apple trees for the larva or eggs of insects but would soon continue on their journey. and their places would be supplied by others. I noticed one or two to dart out and seize an insect in the manner of a flyeatcher. The following day but two or three were seen. A few stragglers, however, were occasionally met with up to the 10th of October, and one was seen as late as the 23d of November. I secured several specimens. Upon dissecting them I found their stomachs filled with remnants of acorns and insects. — A. H. Helme. Miller's Place, L. I.

ORNITHOLOGIST

-AND-

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A MONTHLY MAGAZINE DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, Editor,

With the co-operation of able Ornithological Writers and Collectors.

Subscription—\$1.00 per annum. Foreign subscription \$1.25—including postage. Specimen Copies Ten Cents.

JOS. M. WADE.

Norwich, Conn.

ENTERED AT NORWICH P. O. AS SECOND CLASS MATTER.

EDITORIAL.

K. Gilbert Fowler.—It is with pain that we learn of the death of this enthusiastic naturalist. A notice of his last trip and sad death will appear in our next number.

Cowes' Check List.—To the many applicants for this list we would state that it is not yet ready for distribution. As soon as ready we shall offer it through our advertising columns. It will be bound in cloth. It is not yet known whether a cheap edition in paper covers will be issued or not.

Sharp Shinned Hawk.—In the paper on this little Hawk in the February number by J. M. W., it is stated that the earliest eggs ever taken by the writer was on May 15th, and the first full clutch on May 23d. On May 5th, 1880, I found a nest with two splendidly marked eggs, and neither of the old birds were about the nest. On visiting it again three days later, May 8th, the female was sitting on the eggs, and on climbing to the nest, which contained four eggs, the last two of which were not so cleanly cut in the markings as the first two, the female left the nest-for a neighboring tree, when I shot her.

The above nest was built in a black spruce twenty feet from the ground, and very nicely hollowed out, but without lining. When we take into consideration the difference in latitude, this must be considered early nesting.—J. W. B., St. Johns.

Collector's Movements.

Chas. W. Gunn, Grand Rapids, Mich., has been spending some time in Florida, and wrote us from Titusville, Indian River: "Am having good success in collecting birds, and will have several good articles for your paper soon."

H. G. Fowler, Auburn, N. Y., when last heard from was in Florida and was having good success.

Southwick & Jencks, Providence, R. I., started Geo. M. Gray for the Bahama Islands with an excellent outfit for the purpose of collecting in every department of Natural History, but Mr. Gray's health had been poor for some time, and when he reached Fernandina, Florida, it gave way, when he reluctantly returned home.

M. Chamberlain, St. Johns, N. B., has for some time been sanguine that he could again find the nest of the White Winged Cross Bill, and for that purpose has recently made an expedition into the wilds of N. B. He writes us as follows: "I did not find a Cross-Bill's nest, though I learned something of their habits, and shall try again. Birds of all kinds were scarce. But I enjoyed my ramble very much, and had many amusing and interesting and some exciting adventures. I was never before so impressed with the profound stillness of our forests in Winter, and for the first time I was lonely in the woods. It was not for long, but it was severe. I found myself alone on a large lake at night, the road to my camp a conundrum, the stars shut out by heavy leaden elouds, no matches to see my compass, no sound save the mournful sighing of the wind through the trees, the thermometer about ten degrees, and I very weary and hungry. There was too much to be 'done' just then to spend time in reverie."

Song Sparrow.—Saw a specimen near Norwich, in fine condition, February 26th, 1882.

American Barn Owl.

CONCLUDED.

Slightly widening to the end where it is quite commodious, being often as much as two feet in diameter. For some time it was a perplexing question to me as to how and by what these holes were excavated. After eareful investigation, I am convinced that the owls themselves make many of them. A slight erevice or squirrel hole is selected, and, with their powerful claws, they hollow it out to proper dimensions. Both birds are frequently found occupying the eavity during the day,—the male to one side of the nest.

But the burrows are not always selected. Two nests were found in holes in oak trees. one was found in a barn by Master Bennie Field of Newhall, and in April, 1880, I found a pair occupying the deserted nest of a crow, which was placed about twenty feet from the ground in a cottonwood. I visited this nest at two different times before taking the eggs (five in number), and drove the female from the nest on each occasion.—As an interesting fact in this connection, I may add that, this season, I took from this particular nest two sets of Longeared Owl's eggs and one of the Common Crow, (Corvus frugivorus.)

The use of a nest of this kind by the Barn Owl is very rare, I think; careful search failed to discover a second instance of this kind. As stated above this owl begins nesting early in February, but in that vicinity a majority have not completed their sets before the first of March. On March 5, 1881, Mr. Fred Corey and I met with remarkable success with this owl's eggs. We visited a deep baranca a few miles east of Santa Paula, where we knew them to be abundant. We arrived upon the ground early in the morning, with spade and rope ready for a hard day's work,—and the number of sets we obtained was limited only by the time required in digging for them. Our only way

of getting at the nests was by tving one end of our long rope to a stake driven securely in the ground at some distance from the edge of the baranca, tying the other end around our waist and letting ourself down to the hole. Then, after more or less pretty hard digging we were able to reach the eggs. We dug down to eleven nests altogether, from six of which we got fortyfour eggs, ranging from six to ten eggs to the nest. One of the other nests contained nothing: another, five eggs, one of which was pipped; another with one young and six eggs; still another with four eggs and five young; and yet another with five eggs and five young. The young varied greatly in size, some were scarcely dry, others were a week or more old. From these and subsequent observations, I am led to think that the number of eggs varies from five to ten, averaging about seven, which is the largest number I have seen mentioned by any other writer. Coues says "from three to six;" Baird, Brewer, and Ridgway, "from three to four;" Maynard, "from three to four;" Gentry, "from three to four, very rarely more;" and that veteran oologist, Capt. Bendire, in a letter to Mr. J. M. Wade, which I was kindly permitted to read, says: "Seven had been the greatest number I had heard this species credited with." All of these figures seem far too low, yet it may be that the number of eggs. depends upon the locality, as does the place of the nest.

A word upon what different authorities say regarding its nest, may not be out of place. As to whether it constructs any nest seems to depend entirely where it nests: if in holes in cliffs, trees, or walls, no lining is used; if in barns or houses, it constructs a rude nest of sticks or other rubbish easily brought together. Summing up what the various observers had written on this point, it equals the above, which is in harmony with my own observations.

Prof. Gentry, in Life-Histories of Birds of Eastern Pennsylvania, says: "As soon as the eggs are laid, which, on the average amount to one a day, the female commences the trying duties of incubation. . . We have never observed the male in the vicinity of the nest during the day-time. . The period of incubation is about twenty-four days."

Mr. Corey and I made daily observations of several nests of the Barn Owl with the view of determining these matters, with the following results: (1), The eggs in every case were laid on alternate days; (2), incubation invariably began soon after the first egg was deposited; and (3), in nearly every instance, both male and female were found occupying the nest-cavity, whether in the ground or in a hollow tree. Clods or stones thrown against the bank near the nest usually brought out the male first, who was soon followed by the female, but often not until more clods had been thrown.

That incubation begins before the full nest-complement has been completed is evident to any one who removes the contents from a full set of eggs and notices the various stages of development reached by the embryos. So true is this that it is impossible to blow a full set of these eggs with equally small holes. The same fact is also shown by the great difference in the sizes of the nestlings. The period of incubation is twenty-two to twenty-four days.

—B. W. Evermann, Bloomington, Ind.

Least Bittern.

In the O. and O. for February, 1882, Mr. Guy C. Rich asks the question: "Does the Least Bittern come as far north as forty-three degrees?" I can answer this in the affirmative, for I have before me a male of that species taken in September, 1880, near the mouth of Black River, a small stream which empties into the Bay of Fundy, about eight miles east of St. John, and a little north of forty-five degrees. And this is not the only individual that has ventured thus far north, for between 1877 and 1881 some five were captured within ten miles of this city.—M. Chamberlain, St. Johns, N. B.

Hints to Collectors.

Nests made wholly of *Usnea* or Northern Hanging Lichen, if kept in a cellar, will mould and disintegrate—falling in pieces at a touch in two years' time.

Remember and never neglect to rinse every specimen thoroughly with clean water when blowing eggs. It is part of the operation. I recently examined a box of seventeen quails' eggs, blown in 1879 in the field, with no water near. Every egg held insects, pupæ, and exerctions, and much labor and trouble was the consequence of not using proper precautions at the right time.

The Prairie Warbler returns yearly to its nesting-place in a hazel-bush or in a liazel and blackberry patch in dry pastures. The Yellow Warbler uses no feathers, the Chestnut-sided Warbler not habitually, but the "Prairies" always, if any are to be found. I had one nest beautifully trimmed with Quail's feathers, but alas, it is not! Another lined with feathers of the Indigo Finch, but alas for this also!—both devoured by insects. Nests with sticks, leaves, grasses or cotton, can be preserved easily—and wool with a little care. Mosses fade and fall apart. But watchfulness does not always avail to keep feathers from the ravages of insects. The homes of the Hirundines are beautiful, but lousy. If forgotten for a while, they are liable to be destroyed. The constant use of camphor and almost weekly baths of benzine or carbolic acid seem necessary.

Hawks' eggs can be blown with care and patience even if well incubated. But small eggs should be left in the nest if incubation has begun. Two sets of rare sparrows, taken hurriedly in '81, proved to be well incubated, and though there were nine eggs in all, I have nothing to show now but the nests. Blue-Yellow-Backed Warbler's eggs are especially hard to blow if three days incubated. I have blown fifty fresh eggs of this Warbler without a mishap, but never succeeded in cleaning an

incubated set. Hold them up to the light, brother collectors, and if cloudy pass them by. The same ground can be covered next year with every prospect of success.

Not often do we find sets of Whippoor-will's eggs, yet the birds are reasonably common, and in some places abundant. For instance, while riding in the early evening of Saturday, June 4, '81, through Centre Groton, from Poquonnoc to Ledyard Centre, a distance of four miles, I saw and heard eighteen of these Goatsuckers.

Collectors will do well to take long rides or drives on country and surburban roads in Winter, while the trees are bare, and before snows and the late Winter winds have beaten down the nests. He will note the nesting-places of many birds, which will again be tenanted, and which it will "pay" to visit next season. In an afternoon drive near Norwich lately I marked down for future reference the homes of three "Downies" a fine site in white birch stubs for chickadees, and in bushy pastures by the wayside on cross-roads, nests of Indigo Bird, Prairie and Chestnut-sided Warblers. In three rows of roadside Maples and Ashes, where last July I supposed three or four pairs of Goldfinches were baffling me, can now be counted twenty perfect nests easily got at. Now one can work intelligently for them in '82. On one low limb of an elm was an Oriole's nest in fine condition, an '80 nest well battered, and the shreds of the '79 nest, all within three feet of each other. Will '82 add the fourth in the series? Let not the novice in oology suppose that a collector's field-work is all done in the breeding season.—J. M. W., Norwich, Conn.

Snow Bird.—The 25th of June. 1878, I found a nest of *Juneo hyemalis* in the side of a knoll with four eggs, nearly fresh, the bird flying off as I approached. I occasionally see the black snow bird all Summer, but this was their first nest I ever found.—A. L. Reed, Centre Lisle, N. Y.

Brief Newsy Notes.

Gummed Paper.—Mr C. W. Strumberg, Galesburg, Ill., has sent us a specimen of gummed paper which he uses to mark eggs. It is first punched into a small wafer by a cartridge shell, then put over the hole. It can then be numbered or lettered, and if necessary easily removed by wetting. It is often very difficult to remove the numbers when made on the shell—especially of those that have a rough surface. Send ten cents for a large sheet.

Red-Headed Woodpeckers have been quite common the present Fall about Providence, a number of both adults and young being taken. Usually we hear of but one or two specimens being taken in a year.—F. T. J.

MOTTLED OWL.—We have received a fine specimen just between the Red and Gray Plumage. It came from Burrington, R. I. Have had large quantities in past seasons, but none not readily attributable to Red or Gray.—S. & J.

Red-headed Woodpecker.—On December 11, I saw an adult specimen, also a Winter Wren on the 4th, near Hartford.—II. T. G.

Sea Dove, (Alle nigricans.) November 30, 1881—I received a fine specimen of the Sea Dove killed here on Detroit River, by one of our market hunters. It was swimming among his Decoy Ducks. It proved to be a young female. How it got so far from salt-water is a question.— W. H. Collins, Detroit, Mich.

CEDAR BIRDS AND ROBINS.—A pair of Cedar Birds nested in a tree in the yard of Edward Sufford of this place who took the eggs. A few weeks later, on looking into the nest it was found to contain a set of Robins' eggs. Was not this unusual?—II. B. Kingsley, Rutland, Vermont.

Monkey Headed Owl.—These Owls are not Barn Owls, as you suppose. Their eyes are not larger than a hawks; their faces have a queer Monkey like appearance. The bill, feet, size and plumage agree quite well with the Barn Owl. There is a pair of them, and they are quite tame and will eat

fresh meat from the hand. The price for them is twenty dollars.—*H. A. Berry*, *Macon*, *Ga*.

Notes from St. John, N. B.

Mr. James W. Banks of this city has very kindly placed in my hands his Oological note-book for 1881, from which to make extracts for the edification of our mutual friends the readers of the O. and O.

On May 10 he took his first nest of the season, the domicile of that much maligned and wily bird the Common Crow, Corvus frugivorus, and had to climb some forty feet up a spruce tree for it. The structure was composed exteriorly of cedar twigs and lined with moss. It contained five fresh eggs.

June 5.—A Kingfisher, Ceryle aleyon, was seen going into a hole in a sand-bank and Banks followed him. After a hard dig of about five feet he came to the nest and took out six fresh eggs.

On the day following he found the nest of a Snowbird, (Junco hyemalis,) under the shadow of a large stone in a shady nook. There were four eggs in it partially incubated. About fifty yards further on another Junco had built a home but so far had put only two eggs in it, completing the complement of four however within the two following days.

June 10. - Flushed a Hermit Thrush, Hylocichla unalascae pallasi. Between you and I, Mr. Editor, do you think it is a square deal to give this innocent bird such a name? Don't you think if that bird had to sign his name often, say as president of a silver mining company with well watered stock, don't you think he would - dash Mr. Ridgway and tri-nominals? O confess to a strong desire to cling to the "Turdus" of other days, but I suppose I must display my acquaintance with the "new nomenclature" or, like the fellow who the grave digger in Hamlet condemns for not having been at court, I shall be "surely damned" in the eyes of your scientific readers. Well, this long named party got up off three eggs laid in a nest on the ground under the protecting shade of a low bending limb of a spruce tree. A visit to the nest two days after determined the fact that it had been deserted, and Mr. Banks says "I have observed that this species of bird frequently deserts a nest after it has been discovered."

June 15.—A Red-headed Woodpecker Melanerpeserythrocephalus was discovered looking out from a hole in a birch stub about eight feet from the ground. An investigation disclosed young birds about ready to leave home.

June 23.—He found a nest of the Ruby-crowned Kinglet, (Regulus calendula,) in a dense fir thicket placed on the limb of a tree close to the trunk, and about twelve feet from the ground. In it were four young with wings almost fit for flight.

On the same day he flushed a Redstart. (Setophaga ruticilla.) from a nest fixed in the crotch of a limb of a yellow birch tree about twenty feet from the ground. The nest and eggs were not unusual excepting in size, being much smaller than any he has met with before. They had been hatching for some time, for in two days after two birds had come out, the other eggs being sterile.

June 28.—Was rewarded (?) for a long hard tramp by discovering a nest of the Olive-backed Thrush, Hylocichla ustulata swainsoni with two newly hatched birds and one egg. The nest was upon a spruce tree about six feet from the ground.

On the same day he disturbed a Black and White Creeper. (or Creeping Warbler, as it should be called, the editor of New England Bird-life says.) *Mniotilta varia* of authors. She was feeding four young birds not more than a day or two out from the shell.—*M. Chamberlain*.

BLUE BIRDS.—In our daily drive of twelve miles we have seen Blue Birds almost every day through the past Winter, always in the morning.

ORNITHOLOGIST

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NORWICH, CONN., MAY, 1882.

NO. 15.

Clarke's Crow.

CAPT, CHAS, E. BENDIRE, U. S. A. CONCLUDED.

In the Spring of '77 I commenced my search on March 15th, and although I looked carefully and repeatedly over the entire ground gone over the year before, and over new localities as well. I failed to see a single bird, where on the previous season they had been found comparatively plenty. Puzzled to account for their absence I looked around for the possible cause of it, and knowing that these birds live almost exclusively on the seeds of the pine (in fact, all the specimens I have ever dissected, shot mostly in the Winter months, however, had their crops filled with these seeds and nothing else), I naturally first examined the trees for their principal food supply and found that not a tree in a hundred bore ripe cones, and although there were many green ones I found none mature. This fact, then, accounted fully and plainly for their absence. During the next Winter, '77-78, I found a few of these birds occupying their old haunts again, but not nearly as many as in previous seasons, and I commenced my search as usual again in the latter part of March. On April 4, 1878. I found my first nest. It was placed near the extremity of a small limb, about forty feet from the ground, very hard to get at, and in trying to pull the limb down somewhat with a rope so that it could be reached from a lower limb it broke and the eggs were thrown out of the nest. This also contained three eggs, and incubation, at this early date even, was very far advanced. On April 8th, '78, I found another nest containing two eggs with good-sized embryos. This was likewise placed in a pine tree and near the extremity of one of the limbs, about sixteen feet from the ground. The only way this nest could be got at was by leaning a pole against the limbs of the tree and climbing to the nest by it, in which, after a good deal of labor and trouble, I finally succeeded.

The type specimens obtained by me measured respectively 1.22×0.95 inches and 1.20×0.90 inches. The ground color of these eggs is a light grayish green and they are irregularly spotted and blotched with a deeper shade of gray, principally about the larger end. On the smaller egg the spots are finer and more evenly distrib-The last two eggs obtained are somewhat larger, measuring 1.26×0.95 and 1.30×0.92 inches. Their markings although somewhat finer are about the same as in the type specimens. They are elongated, oval in shape and considerably pointed at the smaller end. The second set of eggs found by me, which, unfortunately, were broken, were more of a greenish ground color and also much heavier spotted. There is no doubt that there will be considerable variation found when a number of sets of eggs of this bird are placed together for examination. That this species should only lay but three eggs to the set seems also rather strange, but as far as my personal observations go such is the fact.

The nests, although looking quite small when viewed from below, are rather bulky affairs after all when closely examined, their base consisting of a platform of small sticks and twigs, mostly of the white sage. which are laid on a sufficiently strong pine branch and generally as far out as possible. On this the nest proper is placed, which is composed of dry grasses, vegetable fibres, hypnum moss, and the fine inner bark of the western juniper (Juniperus occidentalis.) These various materials are well incorporated together and fastened to the branch and pine needles on which it is placed, and makes a warm and comfortable structure. The outer diameter of the only nest measured by me (that is, the compact portion of it) was eight and one-half inches; inner diameter, four and one-half inches: depth inside, three and one-half inches; outside, five inches. As a rule the nests were well concealed from view below, and almost invariably placed on or near the extremity of a live limb at various heights from the ground.

Isolated clumps of pine trees growing near the edges of the forests or mountain valleys, as well as among juniper or mountain mahogany groves, seemed to be the favorite localities frequented by these birds during the breeding season; in fact, I have scarcely ever noticed them any distance in the forest unless there were frequent openings, small valleys, etc., interspersed with These birds appear to raise but one broad during the season, although they commence breeding early enough to raise two or even three nests easily enough, and in the vicinity of Fort Harney they disappear about the end of May or early in June, gathering about that time in considerable flocks, and are not seen again till about October. They probably spend the Summer months in the higher mountain regions in the vicinity.

At all other times a social, inquisitive and exceedingly noisy bird, the Clarke's Crow during the breeding season is exactly the reverse. In vain one may watch and listen to hear their usual and by no means musical call note, "chaar, chaar," which so easily betrays their presence at other times. I have listened in vain and been disappointed. Their whole character seems to have undergone a sudden radical transformation. They remain perfectly silent, seem to hide and would scarcely be noticed, even where comparatively abundant, unless closely looked after.

They are certainly most devoted parents, sometimes even allowing themselves to be captured rather than leave the nest. Their habits otherwise are sufficiently well known, and I have nothing new to add thereto.

Large-billed Water Thrush.

My private collection contains not only my best work and the finest specimens I can procure, but also those which have associations connected with them that I wish to remember. A pair of this species (Siurus motacilla) holds all the above honors. May 11, '77, while five miles west of Providence, in a place known as the Snake Dens, I saw a pair of Water Thrushes running around on the stones in the bed of a pretty brook that rushes between rocky banks. On a nearer approach they flew to the top of the opposite bank, giving at intervals their sharp chip. I shot one from the top of a large rock, and going to the place found no bird, but just back of where it had been was a crevice loosely filled with leaves. I pulled out a lot and finding no bird arose to leave, but immediately decided not to give up so quickly and returned to work, and took out all the leaves I could reach, and among the last the bird, which I dropped into my basket without putting into a paper contrary to my usual custom. After tramping about two hours and having several birds, I sat down to put them in papers. Had made a cornucopia and tipped the bird's head back preparatory to sliding him in, when for the first time I noticed what I had. I had made the acquaintance of this species at Mt. Carmel, Ill., when collecting there with E. W. Nelson in '75, but had thought until that moment it was the common kind.

Without delay I returned to the place of capture, but the other was not there. Going up stream I looked carefully through a small piece of swampy woods, and, fortunately, started and killed the other. They proved to be a pair.

While in West Greenwich, R. I., May 2d, I heard a loud ringing song which I could not recall, and after a stealthy approach espied the songster about twenty feet from the ground on the branch of a sapling. At short intervals he lifted his head, giving his melodious song with as much vivacity as his cousin, the Golden Crowned Thrush. This was obtained and another heard, which, after about an hour's chase was also secured. May, 1880, number three from this locality was added. All of these specimens were taken along rushing streams in which trout are to be found, coursing through heavily wooded rocky country.

This is the most wary small bird I am acquainted with, and the past Spring at Wheatland, Ind., and Mt. Carmel, Ill., enabled me to get well acquainted with it, as it was plentiful throughout the bottoms. The song bears a resemblance to that of the Indigo Bird, and is as often delivered from high up in a tree as from the ground. The tipping motion is constantly noticeable as in the common species. The first nest was found May 22d, in a hollow beside an upturned root by a brook. It contained five young just hatched.

About June 1st, young were abundant. Their chip and motion was precisely like the old ones, and although half-fledged and bob-tailed, they were hard to distinguish from adults at a short distance. At this time, June 1st, when I had given up all hopes of finding a set of eggs, I was walking and pausing, looking carefully up into the foliage, when, happening to stop about fifteen feet from a large tree, a bird immediately fluttered from its base, toppling over first on one side, then on the other, stopping occasionally to kick spasmodical-

ly. This performance was kept up in a circular course for fully fifty yards, excelling any bird I ever saw in this manœuvre. At the end of this feint it flew on to a limb close by, giving its usual chip. From where I stood I could look into the nest and see the five eggs. The situation was in such dense and heavy growth of trees as to nearly stop undergrowth. The nest was placed in the niche caused by the tree slightly spreading towards the roots, and no attempt whatever was made toward concealment. The nest was a damp matted mass of rotten leaves, and lined with fine roots and partly rotted stems of plants. and had to be dried in the oven before being fit to pack. The hollow was slight. and the eggs resemble rather small, very round and evenly spotted Chat's eggsthose with large blotches and not thickly spotted.—F. T. Jeneks, Prov., R. I.

Albinos.—Mr. J. Calhoun writes from Illinois that a white Blue Jay came with others to feed on the soaked bread fed to his chickens. Noticing its peculiar color he secured it on Jan. 30th, and is having it carefully mounted. He writes that he also saw a White Crow feeding on the carcass of a dead horse, but was not able to secure it. At a later date Mr. C. writes: "We have been having fine, balmy weather for ten days. Most of the Spring birds are here. They came from one to two weeks earlier than last year. The Meadow Larks came Feb. 3d, Blue Birds 6th, The Brant, Geese, and Robins 9th. Ducks came by the hundreds, the latter on the 11th and 12th. The sportsmen report all kinds of Water Fowl very plenty on the prairies, in the sloughs and ponds. I saw a great many Wild Pigeons on the 3d inst. flying in all directions. William E. Hart and George Hunt killed an Owl with a steel trap to his leg the 5th inst. It measured four feet from tip to tip of wings, and was spotted.

Speak a good word for the Ornithologist to your correspondents.

ORNITHOLOGIST

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OÖLOGIST.

A MONTHLY MADAZINE DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EOOS.

JOS. M. WADE, Editor.

With the co-operation of able Ornithological Writers and Collectors.

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JOS. M. WADE.

Norwich, Conn.

EDITORIAL.

Vol. vii.—Judging from the expression of satisfaction sent us, our readers, both old and new, must be well pleased with our magazine. This is very gratifying to us, but our list of subscribers is not large enough to pay cost even as now published. If all of our readers would devote one tenth part of the time we do gratuitously, they would increase our list enough to warrant improvements and save us from pecuniary loss—which prevents us from doing as well as we otherwise might. Let each of our readers try and send us one or more subscribers—our magazine will always be worth its cost.

Snowy Owl. — We have recently purchased a Snowy Owl that was mounted. We complained of its neck being stretched out too much, when the following explanation was sent to us: "You speak of the neck of the owl being too long. The fact is, when this bird is perched on a mound on the ground watching for its prey, its neck is stretched out much longer than this one, and remains so for an honr or more at a time. They are not like other owls in that respect. They also feed more in the day time than other owls." The gentleman who sends the above has had a large experience with this owl for many Winters and should know their natural position. Few of our taxidermists have ever studied this bird in life.

Death of H. G. Fowler.

It is with exceeding sadness that we announce the death of our brother naturalist, H. Gilbert Fowler.

The greater part of Mr. Fowler's life was closely identified with the study of nature in nearly all her forms, but particularly in that of Ornithology. Born at Anburn, N. Y., about the year 1850, at an early age he evinced a special fondness for the study of Ornithology, which was pursued almost entirely in the field with an earnest, sincere spirit that bore fruits in the reliable accuracy and conscientious simplicity of all his notes and memoranda.

In 1874 he published in the "Forest and Stream," (newspaper) a list entitled: "The Birds of Central New York." In the following year this was republished in an Auburn, N. Y., paper by Frank R. Rathbun, with several additions. He was also one of the authors of the "Revised List of Birds of Central New York." It was the longing desire to study the feathered creatures of our Southern States in their native haunts that allured him into those malarions districts that proved so fatal to one of his peculiar temperament.

Mr. Fowler had been on the Sunflower river, Miss., but little more than a week when he deemed it advisable to depart, owing to the illness of his companion. They then took steamer for Cedar Keys, Fla., via. New Orleans, La. Early contracting malarial fevers while in Florida, in Mr. Fowler's case, it resulted in typhoid fever; and, eventually, caused his death at Savannah, Ga., while on his way home.

The circumstances attending his death, so far from home and among entire strangers, was peculiarly sad. From an apparent desire not to distress his many friends and relations; although sick nearly two weeks, news of his perfect good health, his sickness and of his death followed one after the other so swiftly as to be almost simultaneous.

Thus passed from this life on the 11th day of February, 1882, one more useful member of our fraternity, whose exceeding kindness to all, whose scrupulous honesty, and trusting confidence in the integrity of his fellow men, closely approximated a fault.

Mr. Fowler was interred at the Fort Hill cemetery at Auburn, N. Y., on the 19th day of Feb., 1882.—F. S. W. & S. F. R.

Hints to Collectors.

Why do you collect eggs? Do you live in the heart of one of our great cities, with few chances afield, and collect through the mails by purchase and exchange? Do you heap eggs together as euriosities or ornaments to show to friends, or to equal or eclipse the collections of A and B? If you are influenced by these motives, or situated as above indicated, stop where you Trouble the birds no longer and turn your attention to bric-a-brac. You are on a lower plane than the crows, grackles and jays who destroy eggs through inherited instinct and appetite. But if you take the field yourself, in search of ruddy health, with a passionate love for your pursuit, with no love of notoriety, and with out ever a thought of rivalry, then we may not condemn von. Furthermore, if you hope by comparison of sets and by observations on obscure breeding habits to add a few grains of information to our humble science, go on, yours is no unholy work.

Not dismayed by the portents of De Voe or Vennor, the collector of eggs relies on an almanae of his own. In this chronology the breeding of our local Rapaciæ is thus forecast: From Feb. 17 to March 20, Great Horned Owl; March 17 to April 10, Barred Owl; March 28 to April 20, Redtailed Hawk; April 3 to May 10, Redshouldered Hawk; April 15, Mottled Owl; April 20 to May 15, Broad-winged Hawk; May 10 to June 15, Marsh, Sharp-shinned and Fish Hawks—To show how near we may come to fixing an exact date for the breeding of certain species, let me give the

record of my sets of Barred Owl for five successive seasons: 1877, March 29; 1878, March 29; 1879, March 29; 1880, March 27; 1881, April 1.

Common enough and of no value to exchange, we leave many sets of Blue Jay's eggs in the field, Take them all in, brother collectors. A series of Jay's eggs shows surprising eontrasts, and admits some pleasing changes, and from twenty sets it would be hard to pick the typical one. Every year I leave untouched many crow's nests for the appreciable service rendered the farmer by this species. But we may thank the noisy crowd of jays for nothing! Will some closer observer, with no animus against him, tell me any good of the Blue Jay, and name any noxious insect with which he varies his diet of eggs and nuts? For two seasons he has destroyed some of my clutches of Blue Yellow-backed Warblers, besides less rare sets. I here indict him as a scold and nuisance.

The Red Squirrel is another inveterate destroyer of bird's eggs, against whom we must make common cause. Before the new leaves hide their movements, I often see them going into the bird-boxes, and Bluebird and Woodpecker holes in the great elms on Broadway, on the qui vive for eggs, and it is well thus early to sound the note of alarm. Here again I have a personal axe to grind in the loss through him last season of clutches of Yellowthroated Vireo and Great-crested Fly-Shoot him on sight, my friends. The other fur bearing animals which are enemies to breeding birds, such as the skunk, 'coon, mink, fox, grey-squirrel, etc., are diligently hunted for their pelts. But the mischievous chicaree with his useless red jacket and morsel of flesh is considered beneath the notice of hunters and trappers. From many visits to nests of unfledged hawks I find that our Buteos render us inestimable service in keeping down the number of these rodents.

The last week in February, Purple

Finches were daily singing in our garden on Broadway. Later, the mating of these Finches is a common and interesting phase of our Spring bird-life. In a newly ploughed furrow, with the brown earth for a background, I have seen seven males dragging their crimson coats in a circle around one bewildered female. At this season both sexes have a pretty habit at sunrise of soaring vertically a few yards above the tree-tops and hovering in the rays of the rising sun, in singing eestasy.

March 1st, I had a Woodcock for dinner, caught by a farmer's cat. Last year I had one under the same conditions, but it was not quite so early an arrival. Lynch, a farmer on the Poquetannoc road, told me that his cat also brought a Woodcock into the house alive. Now, here appears a new element of destructiveness to game birds not commonly taken into consideration, and against which it is useless to legislate.—J. M. W., Norwich, Ct.

Hatching Hawk's Eggs.

Friend Wade: Agreeable to your request, I send you my experience in hatching eggs of our Rapacia. The result has not been very satisfactory thus far, but enough so to satisfy me that some of our Oologists who are very positive in their statements are mistaken (18 to 22 days). Mr. R. M. Jerome, of Plum Island, who has watched the nests of the Fish Hawk for years, says the period of incubation of this bird is about twenty-eight days. (See Familiar Science for June, 1880). From my observations I am satisfied that this is the time occupied by all our Hawks. In my articles published in Familiar Science. I stated that I believed twenty-one days was the period of incubation of all our diurnal birds of prey. This statement I made on the assertions of my collectors.

May 2d, 1879, I put two Red-shouldered Hawk's eggs under a hen May 29th, I took the eggs and broke them, expecting

to find dead birds, as it was several days past the time of incubation given by any of our Oologists (27 days), but judge of my surprise on finding two lively Hawks, evidently just ready to hatch.

In 1880, through the kindness of "J. M. W," I received eggs of the Barred Owl, Cooper's and Red-shouldered Hawk. The Barred Owl's eggs were so thin-shelled that they were broken before two weeks had expired. On the 26th day the hen accidentally got shut out from her nest, and I did not find it out until the eggs were cold. On breaking them, two well developed chicks of the Cooper's Hawk were found dead. The Red-shouldered egg was addled. The past season, through the politeness of W. W. Coe, I received four eggs of the Marsh Hawk and one of the Red-shouldered. On the 30th day I examined the eggs and found two chicks of the Marsh Hawk had cracked the shell. but had been unable to extricate themselves. The other eggs were addled.

From the above I am satisfied that the period of incubation of our Hawks is from twenty-eight to thirty days. I have made arrangements the coming season to test the matter with an incubitor. If those interested in this subject will send me fresh eggs of our Rapacia, I hope to be able to settle positively this question.— William Wood, East Windsor Hill, Conn.

Brief Newsy Notes.

Herons.—On the 4th of August, 1879, I saw an adult Little Blue Heron (Florida caerulea) at Mount Sinai Harbor, L. I., accompanied by a flock of eighteen or twenty Snowy Heron (Garzetta candidissima). One of the Snowy Herons I secured, which proved to be a young male.—A. H. Helme, Miller's Place, N. Y.

Purple Gallinule, (Ionornis martinica.) A specimen was shot near a small pond in Middle Island in the Summer of 1879 by Mr. F. Edwards, who still has the bird in his possession.—A. H. Helme, N. Y.

Cape Cardinal.—Mr. Emerson, of Haywards, Cal., writes us as follows: "I have got a bird new to this place. Our Indian boy shot a Cape Cardinal (Cardinalis igneus) which is found on Cape Saint Lucas and in Southern Arizona. The only difference is the bill is thicker, and the black in front of the forehead does not run across like Cardinalis virginianus. It is a fine specimen in good plumage."

ROUGH LEGGED BUZZARD.—I had a fine hunt a few days ago, and shot three Rough Legs in one afternoon. They are very wild, and I have to hunt them with a team. Have seen twenty in one day and six or seven in sight at one time, and two and three at once in the same tree.—Delos Hatch, Oak Centre, Wis.

Rusty Blackbird.—A male Rusty Blackbird was shot here Feb. 5, which is the first capture recorded in Winter for this State.—II. A. Atkins, M. D., Locke, Mich.

Purple Fixen.—How early in the season does the Purple Finch begin to sing? This morning (Feb. 25th) we heard one in our door yard in nearly full song. Our earliest date previously is March 15th.—Jno. II. Sage, Portland, Conn.

Carolina Rail.—On Dec. 29th, 1881, a male Carolina Rail was shot on the meadows north of Hartford, Conn. The bird is now in my possession. Rather late; in fact, latest I have seen recorded?—H. T. G.

Curious Nest of the Redstart.—When passing through clumps of woods or bushes, collecting nests and eggs, I follow the practice of removing any old nest in reach that I may see, so that on some future trip it may not lead me out of my course. On June 10th, 1880, I had lowered a branch, attached to which was an old Red-eyed Vireo's nest. Upon looking into it, I was surprised to find four spotted eggs, entirely different from those of the Vireo; so replacing the branch and retreating a short distance, I awaited developments. Soon a female Redstart (Setophaga ruticilla) alighted near the nest and

after a few moments settled down into it. The little occupant had relined the old weatherbeaten nest with fine grasses, thus covering the thin places, making the otherwise untenantable nest a comfortable home.—A. K. Fisher, M. D., Sing Sing.

PERSONAL.—Mr. J. A. Allen, Editor of the Bull. Nutt. Orn. Club, who has been in poor health for some time, has gone to Colorado Springs. He left March 6th, and will arrive there in time to see the Spring open and his feathered friends return from their Winter sojournings. It is reported that Wm. Brewster is to join him.

Notes from St. John, N. B.

July 8.—Mr. Banks discovered the nest of the Song Sparrow, (Melospiza fusciata,) the fourth he has found this season, all were built in shrubbery from eighteen to thirty-six inches from the ground. There were three young in this last one, just preparing to leave the nest. My own note book has a record of young birds of this species, taken while flying on June 20th.

July 5—He saw this day the nest of a Black-throated Green Warbler. (*Dendraca virens.*) which was built on a horizontal limb of a small spruce. It was very neatly made though composed entirely of dried grass, the lining being of the same material as the exterior, but of finer pieces. It was about five feet from the ground and contained four eggs partially incubated.

On the same day he found two nests of Black and yellow Warblers, (*Dendræca Maculosa*) both built in small firs three and four feet from the ground and containing four eggs partially incubated.

July 20.—Found two nests of the Snowbird, or Ivory-billed Blue-bird, as the natives here eall them, but known to the book-men as *Junco hyemalis*. Each nest contained four freshly laid eggs.

Mr. Banks reports finding a pair of Yellow-rumps, (*Dendraca voronata*.) and a pair of *Mernia migratoria*, building on a

small spruce tree about fourteen feet high. The Robin's nest was about seven feet from the ground and the Warblers about twelve feet. Both nests contained eggs.

Mr. Banks also reports finding a Robin's nest built on a rock partially sheltered by shrubbery.

A few days ago I was shown by Mr. J. W. Morrison the nest, or nests rather of a pair of Robins, Merula migratorius, (new version.) built on a window cap under the peak of the roof of a house. Mr. Morrison says that on May 28th the first brood of young were hatched and the parents at once began to build a new nest immediately above the first. A second complement of eggs were deposited and hatched out, and for the third time the birds proceeded to build, selecting for the site of their new home an adjacent tree. nest was completed here, but the old birds were so bothered by their youngsters that they finally abandoned this nest in the tree and returned to their old stand under the peak and put their fourth nest on the top of the two already there, and from this third story they brought out their broad. -Montague Chamberlain, Saint Johns, N. B.

Lost to Science.

What a vast amount of assistance comes to the aid of science sometimes from a humble and unexpected source, and the collector who is the recipient thereof how fortunate to become the medium of communication for such important revelations. The scientific world probably never heard of "Chet. Brooks" but everybody in Middlesex County has, and most people that have been much in the street here have probably met him with barehead and barefeet, a snapping turtle in one hand and a gun in the other. He has shot a great many muskrats, and once killed twenty-four at one shot. "You don't believe it" said he. "Oh, certainly," said I. "Well," he said, he "would swear to the fact and would

explain to me how." They were on a long log which was drifting down the river. He got them in range and killed them all at a shot. Going bareheaded in the hot sun had tanned his complexion badly and made the great mat of hair on his head decidedly kinky, though he boasted a descent from King Philip. He heard that I was fond of collecting rare and curious birds and eggs, and he had found a nest and eggs of one of the rarest birds in the United States. It was called a "Pincalo." He had never seen but two or three of them in his life. and he had travelled a great deal. It was a beautiful bird, the top of its head was red, its neck and back were beautifully marked with blue and black, its wings and tail the same, only tipped with white, and its breast was white beautifully spotted with black. He had also found its nest and the eggs were the handsomest he ever saw, and the nest, the most singular of all, consisted of a large heap of seaweed and debris from the shore, and the eggs were laid in the heap as it was piled up, trusting to the fermentation to hatch them. He had saved a whole set of the eggs at his house, eight in number, what would I give him for them? Five dollars, and very much want the bird also, and would con sider myself exceedingly fortunate in bringing such an important discovery to the attention of the scientific world. Wellhe would get the bird, which he could easily do and bring them all up to-morrow. And would I be willing to pay him now? Well, no, hardly, for fear he might forget to bring them up to-morrow. Oh, he would never forget nor fail, but he was going to the store and would like a little if it were only ten cents. He would surely bring them to-morrow, eggs and birds, and he would swear to that. And I, Oh, I lost that chance, and the scientific world may never have another, to introduce into the fanna of New England as a Summer resident and breeding that remarkable and beautiful bird, the Pincalo.—J. N. Clark.

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NORWICH, CONN., MAY 15, 1882.

NO. 16.

The Rufous-winged Sparrow.

CAPT. CHAS. E. BENDIRE, U. S. A.

This little sparrow, first described in the American Naturalist in 1873, Page 322, by Dr. Cones as Peucæa carpalis, is a common resident in the vicinity of Theson, Arizona Territory, where I found it abundant both Summer and Winter. Its range extends, in all probability, throughout the southern border of New Mexico and Arizona Territories. I have no positive information as yet that it has been taken in any other locality than the one above mentioned. It is strange that such a common species should have been overlooked by the naturalists of the southwestern boundary survey, but such was the ease, and it was left for me to add this bird to our avifanna. I took my first specimens on June 10, 1872, and after spending many hours in vain in trying to locate them. my ornithological library, consisting at the time of but a single volume, the Text of the Birds of North America, by Baird, Cassin and Lawrence, I of course failed to find the bird in that work, as it was an undescribed species, nothing was left for me to do but to try and make a few skins to send East for identification. I believe this was one of my first attempts in this line, at least on so small a bird. I managed to strip the hide off in some way, perhaps most of the readers of the O. and O. have tried it themselves, and know exactly how it works, and my skins after they were done looked as if a dog had chewed them for a short time; still there was enough of the original bird left to construct a new species out

of it. I omit giving a detailed description of the bird as it can be found in Mr. W. H. Henshaw's report to Lieut. George N. Wheeler, Vol. 5 United States Geographical Surveys, West of 100th Meridian, 1875, Page 291.

I found these birds very common on the ridges bordering Rillitto Creek, a little back from the creek bottom proper, but seldom any great distance from the latter in the dry and arid cactus covered plains.

The Rufons-winged Sparrow seemed to be particularly partial to a strip of country scarcely a mile in length by four hundred yards wide running parallel to the creek and near the present site of Camp Lowell. This piece of ground was then covered with good sized mesquite trees interspersed with sage and thorn bushes, small undergrowth and bunches of tall rye and mesquite grasses. In this comparatively small space I found not less than forty-three of their nests with eggs and a still larger number of those of the Black-throated Sparrow which were still more common, besides a number of nests containing young birds in various stages of growth.

The nest is usually placed in low bushes preferably small mesquite bushes, from six inches to five feet from the ground, most frequently, however, about eighteen inches high, and no especial attempt is made at concealment. It is firmly fixed into a fork or crotch of the bush in which it is built, and is a compact structure, composed externally of coarse grasses and lined with the fine tops of the mesquite grass, and not unfrequently a few horse hairs when such are obtainable. These nests are

slightly larger than those of the Blackthroated Sparrow—about two inches wide by three inches deep in the inside, so deep in fact that nothing but the tip of the tail of the bird is visible when setting.

The first eggs of this species I found about June 14, 1872, although I believe these birds commence to breed about a month earlier, their nests having been previously overlooked by me. The number of eggs to a set is from four to five; they are of a very delicate pale green color and unspotted, often very pointed at the smaller end, and the average measurement of twenty-six specimens now before me is 0.76×0.57 inches. The largest egg in this lot measures 0.79×0.58 and the smallest 0.73×0.54 inches.

The nest appears to be one of the most favored by the Dwarf Cowbird as the recipient of its eggs, about one-half of the nests found containing one or more of the parasitic eggs. In a number of instances where I found such parasitic eggs with those of the rightful owner of the nest one or more of the latter's eggs were found to have the shell minutely punctured in one or more places. I presume this injury would prevent these eggs from hatching, and I firmly believe it was done by the Cowbirds for this very purpose, as among more than fifty of the latter's eggs taken by me during the same season I cannot recall or find a single one that was so punctured. I believe this to be a fact not heretofore noticed by oologists; at any rate I cannot find any such record in any of the ornithological works at present accessible to me.

Its song is according to my estimation rather weak and monotonous. During the breeding season the male makes frequent attempts at singing either while perched on the top of a low bush or while hovering a few feet in the air, generally in close proximity to the bush in which its nest is situated. Its usual call note is a lisping "tzip," "tzip," frequently repeated. It

spends a great deal of its time on the ground and seems to feed principally on various kinds of small seeds. It seems to be sociable and gregarious at all times. In the Winter it is found in small flocks among the Black-throated and Chipping Sparrows, the various Finches and the White-winged Blackbirds. I believe these birds rear from two to three broods a year, as I have found fresh eggs as late as Sept. 1, 1872.

Rare Birds in Nova Scotia.

The Arctic current flowing from Hudsons and Baffins Bays, divided by Newfoundland, part coming down the Straits of Belle Isle and part by the eastern coast of Newfoundland, but uniting in one stream at the south, passes along the Nova Scotia shore. The circular storms commencing in the Gulf of Mexico or on the Florida shores, the circle gradually enlarging during their progress past the southern shores of Nova Scotia on their way across the Atlantic. It is owing to these two causes that rare birds are found in Nova Scotia almost after every storm. The Arctic species, strictly pelagic, follow their prey along the current till they get far south. On meeting the circular storm, usually passing on their northeast and east circles, they fly west to avoid it, and come to this Province. Thus, after the storm, Oct 4, 1879, (called the Saxby storm, after his prediction), a pair of Pomarine Jægers were seen in Digby Basin, one of which was shot. The broad band of clay-blue below the black leg and knee, mentioned by Audubon was very marked. In July, 1881, Wm. S. Gilpin shot a Shearwater, or Puffinus major. This pelagic species, common on the banks, had evidently been To these causes I attribute Mr. blown in. Downs obtaining in the year 1850, three specimens of the Labrador Duck, the last ones seen here; nor have I seen any mention in any periodical of them since, though common in Wilson's time and known by the gunners of Rhode Island in 1830. December 11, 1871, I saw in a Halifax market three fine males in perfect plumage of the King Eider, and never since; and here may be mentioned, though certainly not owing to Arctic currents, that about twelve or fifteen years ago a specimen of the Great extinct Auk was discovered by the late Lord Bishop of Newfoundland and presented to a gentleman in Halifax. It had been dead a long time and was only feathers, skin and bones, and was found buried under guano at the Funk Islands by the Bishop himself. I think this to be the last specimen noted. Of the more Southern species, which, caught in the circles of the Southern eyelones, are whirled down upon us, may be added a Purple Galinule, shot at Halifax, February, 1870, a few days after the cyclone in which the City of Boston perished, and Her Majesty's transport, Oronte, survived, on the banks of Newfoundland. The Florida Galinule was also taken near Halifax, May 23, 1880, after po recorded storm. After a heavy storm, Nov. 15, 1876, was taken near Halifax, and mounted by Mr. Downs, a Frigate Pelican or Man-of-War Bird, and again after a furious gale, September. 1870, which destroved numbers of shipping and boats. was shot far in the interior of the Province, a Tropic Bird, this rosy favorite of a tropical sun, with its searlet beak and long red tail, must have found but a poor rest among the spruce firs of Nova Scotia. To these may be added a female Cardinal Grosbeak, shot February, 1871, at Halifax—thermometer 14 degrees below zero very fat and lively, a Blue Grosbeak mounted by Mr. Downs, and a small flock of Redwing Blackbirds, young males and females, on Devil's Island, near Halifax, in November, after the storm of Oct. 12, 1871. This ends my list of personally observed birds. but as there has been some communications lately upon the matter, I may add that the White-winged Crossbill (C. leucoptera) is known to hatch in February.

the female setting upon her eggs, with the the snow all around her, were seen in the pine woods of the Dutch village near Halifax in February. Chief Justice Sir William Ritchie assured me that he had seen them in his own woods, near St. John, breeding in February, our coldest month.

—J. Bernard Gilpin, Halifax, N. S.

The Osprey and its Prey.

We were sitting upon the piazza facing south, about 3 o'clock in the afternoon. The river runs past the house at about eighty yards distance. Suddenly I heard a wild scream of exultation. I thought it was an eagle, but, looking up, there over the river was a flock of crows who were attending a convention in a neighboring grove. Passing through this noisy flock I saw, rising heavily, a large bird weighed down by something which he bore in his talons. After rising above the crows, he passed directly over our heads, bearing away across the rice fields towards the distant wood. Then I recognized, with a shout of satisfaction, a magnificent Osprey. bearing in his grasp a giant cat fish, the fish appearing even longer than the bird, and it was a hard tug for even her powerful wings. I could plainly see the feelers projecting from the cat's jaws, and recognized the shape of his head—while the plumage of the beautiful bird was glistening plainly in the sunlight. It was a grand sight! I think the Osprey was a female—it being too large, it seemed, for a male, for, as you well know, "the mare is the best horse," "the wife wears the breeches," in this case—the female being the more powerful and beautiful bird in the raptores generally.—Rev. J. Bachman Haskell, White Hall, S. C.

Gadwell Duck in R. I.—A collector brought to us a fine Female Gadwell Duck which he shot at Newport, Sunday, Feb. 26. It is the first capture in this State as far as I am aware.—Fred. T. Jeneks, Prov. R. I.

ORNITHOLOGIST

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A MONTHLY MAGAZINE DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, EDITOR,

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JOS. M. WADE, Norwich, Conn.

EDITORIAL.

OUR PRESENT NUMBER is dated May 15th and is an extra. During the year another will be sent out. The volume will then close with the year and prevent confusion. For want of room much newsy and valuable matter is left over each month. An enlargement or a semi-monthly issue is very desirable. Our thanks are tendered to those who have sent us additional subscribers.

Publications.

"Forest and Stream," BIRD Notes. An index and summary of all the ornithological matter contained in "Forest and Stream," Vols. I to XII. Compiled by H. B. Baily. Forest and Stream Publishing Co., N. Y., 1881. Price not given. The above is a very valuable work for students in ornithology who have access to a full file of Forest and Stream. The "summa ry" is valuable of itself, but the title "Bird Notes" is misleading. The name of the author is a sufficient guarantee that the work is well done.

"Birds Nesting. A hand book of instruction in gathering and preserving the NESTS AND EGGS OF BIRDS for the purpose of study, by Ernest Ingorsoll, Salem. Geo. A. Bates, 1882." Price conditional—from 90 cents to \$1.25. We have read this work with much interest and some profit. Mr. Ingorsoll has written the book in a plain, straightforward manner that all can understand and appreciate. It is not by any means above criticism, but Mr. Ingorsoll has done so well that we have not the juclination to criticise, even if we had the room. Every collector should get a copy for it is well worth the low price asked for it.

Blue Yellow-backed Warbler.

ITS SUMMER HOME.

The long, pendulous tree moss, socalled, in which the Blue Yellow-backed Warbler builds its nest and breeds, is a lichen of the genus Usnea (U. barbata, var. hirta) and (U. trichodea). The filamentous thallus of the latter is coarser and longer than the former, specimens often measuring more than two feet in length. Both species are often found in the same nest, U. barbata, or the finer parts of U. trichodea, being used for the nest proper.

Of the nine species recognized by Nylander three are European and six are possessed by us. U. barbata, var. Florida is very common in our woods, but is hardly pendulous enough for the purposes of the Warbler in question. It may be readily distinguished by its numerous peltate apothecia, with radiate margins and whitish faces. The longer species mentioned above (var. hirta), is found on juniper or savins in exposed localities on our highest hills; old seraggy trees, partly dead, furnish the greatest supply. I have found none on young trees. The filaments of this lichen are very fine and hair-like. The finest specimens of U. trichodea are found in our densest swamps on the white cedar (Cupressus thyoides) and on other swamp trees.

In appearance these lichens are related to our northern cedar swamps very much as the Spanish or black moss (Tillandsia usenvides) is to the southern; though the latter is not a lichen, belonging as it does to the pineapple family, it is nevertheless an epiphyte. Lichens are all hardy air plants and simply require a foothold, when they are able to thrive under the most

adverse conditions of temperature. In one of these swamps I was shown my first Blue Yellow-back's nest, by an enthusiastic worker hereabouts, who had the kindness to guide me through the Swamptangled labyrinths for the space of an hour or more to my great profit and The beautiful Calla palustres delight. and the pitcher plant (S. purpurea) were in blossom under the shade of the trees, and the spagnum under foot, several feet in thickness, was as soft as a bed of down. Botanically considered, the spot was a perfect treasure house. I visited the place again during the Winter of 1880, when the ice assisted me greatly in getting about. -G. R. C., Norwich, Conn.

Great Horned Owls' Nests and Eggs.

W. W. Coe, of Portland, Conn., secured still another set in his long series of Great Horned Owls, Feb. 27th, his earliest record being Feb. 22d.

March 12th, I startled a Bubo from an old nest under which I had been twice in February and seen no sign. Fragments of shells and a wad of wet feathers were on the ground, and the nest held one Owl but a few hours from the shell. There was no quarry or food in the nest and the parent, which flew swiftly out of range, was a bird of the small dark male type. Now, if the period of incubation of B. virginianus is as given by writers ("all guess work" says Dr. Wood), or if it approaches in duration the long incubation of the Buteos, of which I have some data, then the egg which produced this chick must have been laid at an earlier date than any present record of the breeding of this species in Conn.—J. M. W., Norwich, Ct.

I have been serenaded all winter by the harmonious sub-bass of a pair of Great Horned Owls from Cedar Swamp, some three-fourths of a mile away, and as I listened I whispered to myself, "just you wait till next February and then see." They waited till about the middle of February

ruary, when the serenading suddenly ceased, and I listened for it in vain night after night. And right here let me ask the question of those acquainted with this bird's habits, if they do not cease "hooting" for a time after they commence to breed? I have observed this same ominous silence through the latter part of February before. After listening in vain night after night till into March, I gave them up, remarking to a friend that my great expectations had turned to disappointment, when the suggestive question above was put to me, and sure enough one evening my ear was saluted again by the old serenade all the evening long, and the next morning it was continued until 8 o'clock. When night came again, the serenade again commenced, and I started off in the twilight to trace them out. Reaching the limit of my intended trip. I heard the Owl, apparently about a mile further on. I listened as it repeated its note and at each repetition it seemed nearer, till presently it resounded from a grove quite near me and I heard a strange noise, a rapidly repeated ha-ha-ha-hey-e-e coming back, and my inference was that the male was treating his mate to a supper. It was only a little grove, but I well knew of an old Cooper's Hawk's nest built two years ago in it, and there, when I paid a visit by daylight, were the erect horns and a partial glimpse of the great eyes staring down at me. A smart rap on the tree started her off and I arranged for a climb. It was not a difficult tree—a maple fortyseven feet from the ground to the nestand I soon had the much prized set in my hands—two pure white eggs very nearly round. Incubation had proceeded probably about a week or ten days. I do not think the Owls had added any building materials to the nest, but the setting bird must have nearly denuded her breast of feathers for lining, as the inside was well matted with them. This was on March 13th, and incubation was unusually late

with them. Last season I found a set on the 15th, with young just ready to leave the shell, and once before on the 18th the same; all these were in old Cooper's Hawks' nests. I never found them in a hollow tree, but I once found a set in a broad crotch of a large chestnut, where four branches converged from the same point; but there was no nest, not even a leaf.—J. N. Clark, Old Saybrook, Conn.

(Junius A. Brand, of this city, came to our office March 19th, and reported finding a Great Horned Owl's nest a few miles ont, which contained two young, from one week to ten days old. The nest was in an immense pine, some fifty feet up. Mr. B. has harried this pair for three years in succession, but always too late, each season finding young in the nest.—Ed.)

Cost of Importing .- As many of our readers have made enquiries in regard to cost of importing natural history specimens, we give the following statement of actual cost: It appears that there is no duty on such specimens. This package contained the skin of one Eagle Owl (Bubo maximus) and three sets of eggs, and came from William Schliiter, Halle on Saale, Germany. Freight and charges to New York, \$2.47; custom house fees, \$1.00; cartage, .75; insurance, .15; Storage, .45; custom house brokerage, \$3.00; total \$7.82, or \$2.47 for carrying the package from Germany to New York, and \$5.35 for getting the package from the ship to the express office in New York. So much for the beautiful workings of our custom house system.

American Long—eared Owl. — Average measurement of thirty-seven specimens of the eggs of Asio americanus (Sharpe), all I can get at present average 1.59×1.30 inches. The three largest eggs measure respectively 1.68×1.31 , 1.60×1.38 , 1.63×1.34 , the two smallest 1.52×1.32 and 1.57×1.25 inches—see page 81, Vol. VI.—Chas. E. Bendire, U. S. A.

Death of William B. Dickinson.

This young and enthusiastic naturalist contracted a fever while collecting specimens in the wilds of Florida which terminated fatally at Palatka, Dec. 19, 1881, Young Mr. Dickinson gave early indication of a taste for natural science, and found in his father not only an able instructor, but that encouragement which an enthusiast in his profession can give, so that at the early age of twenty-three years, the time of his death, he ranked among the first artists in his line of profession. Being of a genial disposition and a good marksman, he had naturally won many friends who will hear of his death with regret. His relatives and friends, who were anxiously awaiting the Spring to welcome him home, feel their loss keenly, as he was highly esteemed in his native place and had won the respect of all who knew him.

Humming Birds in Confinement.

One of the most wonderful of nature's beautiful works is the "hummer," its breast covered with irredisent plumage, its wings of gauze, hovering hither and thither over the bright blossoms, in search of sweets hidden in the depths of each corolla. When the cup is drained, with a quick dart he is away to other fields.

I had often wished to companionize them, and was so favored this past Spring April 14th. While my son and myself were out collecting, he found a nest of the Allen hummer, (Selasphorus alleni,) the young just about to fly. I carried them home and fed them with sugar. After three or four days taught them to thrust their long wiry bills into a small glass vase filled with white sugar syrup, which they ate with a rapid thrusting of their long thread-like white tongues, similar to the lappings of a cat drinking milk. They very soon learned to go to their cage and feed themselves. They were allowed to fly

about the rooms through the day, as screens at the doors and windows kept them from escaping, although they did not attempt to get out or fly against the windows as wild birds usually do.

I soon taught them to come at my call and feed from my lips, or rest on my breast while at my painting, and that recalls an amusing incident that happened to one of my pets. Being "ferociously" hungry he made a dash at a mass of chrome-yellow on my pallette which stuck to his bill, and as I was hurrying to finish my day's work I did not notice the mishap until his plaintive peep, and fluttering before my face, called my attention. Upon relieving the poor little " Omoline Ortesi" of his superabundance of chrome-yellow, he uttered his thanks and made a hurried dart after a fly. I have often seen both making quick. short turns and not stopping until one or the other had made a captive of a house fly. They would perch themselves upon the rounds of my chair, chirping with a squeaky, unmusical note, as if to let me know of their presence.

When their food was gone they would poise themselves in the air close to my mouth, thrust their bills between my lips, then fly to their cup, then back to my mouth, and repeat it until I answered their demands. J. G. Cooper remarked, while watching their flight through the rooms, that he had never known of the hummers having been taught to gather honey from flowers only by the parent bird, and I decided to make the experiment, gathering some scarlet geraniums and verbenas, placing them in a vase on the table, holding up my brush, I called my pets to me. placed them in front of the flowers. They did not take any notice of them. I then put a drop of syrup in the centre of each blossom, putting the bills on the drops of sugar, which they sipped from every flower, hovering in the air as we see them out of doors; they did not need a second lesson nor did they ever forget their instruction. When fresh flowers were brought in, there was a gleaning without delay. I noticed the scarlet blossoms received attention first, and they would perch upon my arm and hover about me with evidently pure delight, when I wore a scarlet jacket, showing a preference for bright colors.

I had my pets two weeks when I noticed one of them on a rug where the sun shone, fluttering its wings as if wishing for a bath. I gave it a dish of water. Its foot was so small and the dish so slippery, that it could not stand. On placing a bit of moss in the dish and putting the wee one on it, it began to flutter its wings, sending the water in tiny showers, calling its mate to join in the glee. After washing they perched themselves on the centre cross-bar of the window, in the sunshine, dressing their feathers, stretching themselves over on their sides, acting as though quite well taught, all from bird intuition as they had not known a mother since leaving the nest. I found them very apt in learning and fond of caresses, allowing me to stroke them, turning their heads to one side as if listening to my words.

My pets were three months and a half old when a friend came to visit me. As we sat chatting, the smaller and brighter of the two alighted on her hand, sitting for some five minutes, appearing as content as bird could be. I called it, and as it flew to my lips for sugar, finding none, hastened to its cage. As it was alighting, its companion who was at the cup, gave it a sharp peck on the head, which stunned the poor thing, felling it to the floor. I picked it up and placed it on its perch by the food. It would not eat and seemed dazed like, dying on the following day.

The remaining one went uneasily from room to room, calling most pitifully for its mate, and after the second day it refused to eat and died. Indeed I cannot tell you how we missed our pets, for every day we had learned something new and strange in the habits and peculiarities of the hum-

mers. Their happy, chirpy notes, quick flights, sporting with each other, their morning bath and winsome ways, were as a golden ray of sunshine that brightened the every day cares of life; and here let me add the more one will encourage themselves in gleaning a little here and gathering there, in a few months they would be astonished at the amount of information gained from Nature's never ceasing wonders which lie all around us or near our reach if we will but seek and gather.—Mrs. C. M. Crowell, Haywards, Cal.

Traill's Flycatcher.
ITS NESTING HABITS IN OHIO.

Traill's Flyeatcher, (Empidonax pusillus trailli), arrives in Ohio the last of April or the first of May, passing northward along the margin of the streams. So far as I have observed, it seems to be more shy and restless than others of the genus. Its presence is made known by its short and pevish notes, uttered at intervals as it flits from bush to bush or across a stream.

About the latter part of May they retire to their favorite breeding resorts, which are always in low grounds, and are especially fond of thick willows and alders along the banks of running streams. These localities seem to be characteristic of this species; at least I have never found them elsewhere during the breeding season. In the vicinity of Columbus they are, apparently, a common Summer resident, breeding abundantly. The bird was not known to breed in Ohio until its nest was discovered by Dr. J. M. Wheaton, in June, 1874, in this vicinity. In 1879 I obtained four nests with eggs; in 1880, six nests with eggs; in 1881, between May 28 and June 17, I obtained eighteen nests containing The locality was in a thick growth of alders bordering a canal, three miles north of the city. None of these nests were placed higher than eight feet from the ground, and in most eases from two to four. In nearly all instances they were built in an upright fork, the small twigs that surrounded them were made available to secure them firmly in their place by being encircled with stringy fibres.

Ten nests before me have a strong resemblance to the usual structure of the Yellow Warbler, (Dendræca æstiva,) but probably lack in compactness and neatness. The external or greater portion of the nest is composed of hempen fibres, internally lined in true Flycatcher style with fine grasses. In some, however, there is a slight lining of horse-hair, and of the down from the milk-weed or thistles. A typical nest measures as follows: Height, two and a half inches; diameter, three inches. The cavity is an inch and a half in diameter, and two inches in depth. nearly all cases these nests contained but three eggs; rarely four, and a great many in varying stages of incubation. A nest was often found with one fresh egg and two others partly incubated, showing that the eggs were, in some cases, laid on alternate days, and sometimes as late as a week after the first was deposited, as is often the case with our Cuckoos. The ground color of these eggs is extremely variable. In some it is of a cream color, in others approaching buff. In four sets before me there is a striking variation in the distribution of the markings. They are usually marked chiefly at the larger end with large blotches of red and reddish-brown. This, however, is only characteristic in one of these sets, while in the others the markings are simply very small dots, sparingly sprinkled over the surface, and in some these dottings are scarcely visible, giving them the appearance of an almost unspotted surface. Six eggs measure respective- $1 \times 72 \times 55, 70 \times 53, 70 \times 52, 64 \times 53, 69 \times 52,$ 70×53 . There is scarcely any perceptible difference between the eggs of Trailli and those of Acadicus. The western eggs of Trailli probably have a darker ground, and the spots are more vivid, but I do not believe any one can tell them apart with certainty.—Oliver Davie, Columbus, Ohio.

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Malheur Lake, Oregon.

BY CAPT. CHAS. E. BENDIRE, U. S. A.

April 14, 1875, the writer with a party of friends started from Camp Harney to Malheur Lake (both of which places are located in Grant County, in the southeastern portion of Oregon), the lake about twentyfive miles south of the post. The ostensible objects of the trip were. (1st,) to hunt water fowl, thousands of which were to be found at that season of the year on the shores of the lake, which was a favorite resting place for them, a sort of half way house on their migrations to and from their breeding places in the northern regions: and also to try the sailing qualities of a good-sized boat, which a joint stock company of us had constructed during the previous Winter, and which was to be launched on the lake for the first time. The ice having only broken up a few days previously, and occasional patches of snow were still to be seen in places on the plain intervening between the lake and the post, so that the idea of possibly finding eggs so early in the season never once entered my head. and I made no preparations whatever for their care. However, early as it was I found that several species had commenced nesting already, among these the American White Pelican, (Pelecanus erythrorhymchus, Gmel.), whose eggs were still rare in most collections, and well prepared speci mens especial desiderata.

We made our first camp on Sylvies River, a large tributary of the lake, some sixteen miles from the post, and from which point it looked simple enough to get into the

lake—till we tried it. A thick belt of heavy tules about a mile wide intervened between the point where the stream ceased to be navigable and the open waters of the lake. which we found to be nowhere more than a few feet deep. It took us till noon of the 16th to find a channel which finally allowed us to float our boat on the lake proper. We were well repaid, however, for all our labor Swan, Geese and Ducks were to be seen in all directions, and several low, narrow islands near the eastern end of the lake seemed to be literally, covered with water fowl of various kinds. On landing on the nearest island I found it was occupied by quite a colony of the American White Pelican, the Great Blue Heron and the Double-crested Cormorant. besides various species of Ducks and a few Canada Geese. There are five of these islands, separated from each other by narrow channels. The two largest are each about six hundred yards long and not over a hundred vards wide at any place, generally less: the central portion, forming a sort of a ridge, is covered with a heavy growth of a species of grease wood, extending in a strip from ten to fifteen feet wide the whole of their length. Close to the eastern edge of this strip of grease wood, on a dry sandy slope which was well sheltered from the wind. I found my first Pelican's eggs, and not more than ten feet from them was quite a patch of snow. The nests, if they can be called such, consisted simply of rubbish scraped up by the birds in the immediate vicinity, to keep the eggs from rolling about, the eggs themselves laving on the bare sand. About one-fourth of

the nests contained two eggs, the remainder but a single one, the birds having evidently just begun to lay. Almost all the grease wood bushes on the island contained a nest of the Great Blue Heron, but very few of these had commenced to lav yet. I was determined to pay these islands several visits in the near future, looking at them as perfect oological bonanzas from a collector's standpoint. I brought away but comparatively few eggs, but some of the members of the party having more faith in their gastronomic qualities than myself, loaded themselves down with as many as they could conveniently carry, hoping thereby to add an extra course consisting of a fine "omelet au naturel" to our prospective supper of broiled Teal Duck and Swan chowder. The said omelet was duly and artistically prepared, but, alas! it was not a success. As I did not taste the dish I cannot describe its particular flavor, but I well remember the remark made to me by our chef de cuisine: "Captain, I don't hanker after any more Pelican egg om'let; you can take all the rest of the eggs, they taste too fishy; if I have to eat fish I prefer to take them straight."

April 22d, I made another trip to Malheur Lake, and remained there till the 28th, exploring in the meantime all the islands and the southern shores of the lake thoroughly. On this and subsequent visits I could, with little trouble, have loaded a wagon with eggs, I found them so plenty, that literally every foot of ground down to the water's edge was covered with nests. Each of these contained generally two eggs, although three and four to a nest were by no means rare, and occasionally I found as many as five, all evidently laid by the same bird. Two eggs seems to be the usual number laid, however. These are dull, chalky white in color, rough to the touch, caused by a calcareous deposit on them, and always more or less blood In some specimens the white stained.

ground color was nearly hidden so they looked almost a chocolate brown. The shell of these eggs, thick as it is, and particularly if the eggs have been washed, is very brittle, soft and easily broken. Their average size is about 3.45×2.30 in-Measurements of a few selected specimens are as follows: 4.08×2.15 , $4.04 \times 2.20, \ 4.01 \times 2.19, \ 3.99 \times 2.20, \ 3.72 \times$ $2.40, 3.86 \times 2.55, 3.87 \times 2.32, 3.62 \times 2.40,$ $3.60 \times 2.40, \ 3.57 \times 2.35, \ 3.20 \times 2.51, \ 3.17 \times$ 2.23, 3.20×2.21 ; two runt eggs, $2.69 \times$ 1.88 and 2.46×1.73 . As will be seen there is considerable variation, but it must also be remembered that these eggs were selected out of several thousand. The various discrepancies in the plumage of these birds at different periods of the year is now well understood. On being disturbed at their breeding places they would quietly fly out a short distance into the lake and remain there until the intruders had left or hidden A protracted stay on the themselves. islands was anything but pleasant, the whole place being alive with fleas, and the stench from decaying fish was almost un-The young, none of which bearable. seemed to be more than a week or so old, were perfectly naked, not a sign of a feather being visible, and they certainly could not be called attractive creatures. Eggs placed under a domestic hen hatched in twentynine days, and the injured and disgusted look of that poor bird at the result of her lengthy and protracted setting haunts me still. Although awkward on the land, these birds are by no means ungraceful on the water as well as on the wing, and they present a pretty sight coming and going in long single files from their breeding places. They are a sedate and silent bird, showing a great deal of tact and good sense combined with considerable activity on their fishing excursions. It has been my good fortune to observe them closely while so engaged. Some twelve miles to the southwest of the islands where they breed is their principal and favorite fishing ground. Here a number of large springs break out from the shore, this being the only place on the whole lake, so far as I know, where the water is sweet and palatable, that in the lake proper being always more or less brackish. Dense masses of tules grow up to the shore on each side of this spring, leaving a clear sheet of water running directly into the lake about a hundred vards wide and some four feet deep. The bottom for some two hundred yards out is gravelly, and forms, I presume, the only suitable spawning ground for certain species of fish found in the waters of this lake. At the time I visited this lake a species of Catostomus, a red-sided sucker, from twelve to eighteen inches long, was to be found here in countless numbers. camping at the head of this spring kept the birds away during the day time, but shortly after sundown they commenced to come in, first by tens, then by fifties, so that in less than half an hour a perfect column some one hundred and fifty yards long and from four to six birds deep might be seen swimming about on the open water a hundred yards or so below where my boat was tied up. Gradually they ventured nearer, and one immense old fellow, evidently their leader, swam several times quite close to the boat and then back again to the main body, which kept moving uneasily back and forth, apparently not satisfied with the looks of things near the shore. Finally several birds, bolder than the rest, detached themselves from the main body and moved up somewhat closer but still not quite up to the boat. The leader, far more courageous than the rest. swam nearly around it, and after fully satisfying himself with his inspection seemed to imply to the rest of the birds by his looks to "come along, everything is all right."

[CONCLUDED NEXT MONTH.]

Collector's Movements.—We shall be pleased to place on record the movements of collectors when made known to us.

Golden Eagle's Eggs.—While in camp at Fort Bridger. Wyoming Territory, in 1871, one of our party brought in from the mountain in his saddle bag an egg of the Golden Eagle. He found the nest on a ledge of rock on the side of a moun-It was composed of a mass of sticks. in the center of which was a young eaglet nearly neady to fly, and this egg which he brought to me showed no signs of being incubated, and I was only sorry the other egg had hatched out, for I wanted a full set. The old bird showed no alarm, but tlew about over head just out of gunshot however. The egg is globular in shape, being nearly as large one way as the other. Ground color of a dirty white, covered with blotches of what I supposed was dirt, but on my rubbing it with soap and water and a brush, it refused to come off. Mingled with these stains as it were, are shell spots of lilac and purple. So the egg is much derker than any other eagle's egg I have seen. Shell smooth, but not polished. Size, 2.84×2.34 . Collected June, 1871, at an elevation of over eight thousand feet. our camp being nearly that height, and the egg was taken at a much greater height.

Other sets containing two eggs are in the collection of Geo. H. Ready, Santa Cruz, Cal., and J. G. Cooper, of Haywards, Cal. Also, Capt. Chas. E. Bendire, Fort Walla Walla, W. T., and Edwin Dickinson, Springfield, Mass.

Mr. Cooper also has an egg of the California Vulture in his collection, which is the only one I know off, though he may have added others since I heard from him.

—Snowdon Howland, Newport, R. I.

Rose-breated Grosbeak.—As far as my experience goes, this bird lays three eggs. I have occasionally found them with four, and last spring found one with five eggs. Is not this unusual?—(We never found but three eggs until last spring, when we received a set of five from Jerome Trombley, Petersburg, Mich. This was the first record of five known to us.—Ed.)

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OÖLOGIST.

A MONTHLY MAGAZINE DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, EDITOR,

With the co-operation of able Ornithological Writers and Collectors.

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JOS. M. WADE, Norwich, Conn.

EDITORIAL.

"Birds of New Brunswick."

Away down east in the Province of N. B., with its head centre at Saint John, is probably the liveliest natural history society on this continent at the present time. There are earnest workers in every department, but ornithology is especially favored by an able set of men who seem devoted to the science in its familiar form. The leader of this band, Montague Chamberlain, seems ent out by nature as a teacher. While realizing the full value of science, he also knows that bird life, pure and simple, as depicted by Wilson and Audubon, is what wins over to science the young and would be or nithologists. The back pages of this magazine bear evidence of the industry and careful observation made by the members of this society which has just issued its first volume of transaction, entitled Bulletin of the Natural History Society of New Brunswick. It is a valuable document of 72 pages devoted to the doings of the society and natural history generally, but what interests us most is the list of 269 birds (by M. Chamberlain) found in that Province. This is not offered as a perfect list, but as an "installment," and bears evidence on its face that the day is not far distant when the Birds of New Brunswick will be thoroughly catalogued. Whether this Bulletin will be offered for sale or not we do not know-but it should be in the hands of every progressive ornithologist.

Birds of Central New York.

"The Revised List of the Birds of Central New York," as it appeared from the press in April, 1879, was a work based on the field observations of H. G. Fowler. Frank S. Wright and Samuel F. Rathbun. of Auburn, N. Y., and collated for the press by Frank R. Rathbun. A continuation of the work, since the publication of the list, has resulted in adding fourteen species to the record from this section, beside many notes of interest. This makes the number of perfectly authenticated species 250, which have come under the actual observation of Messrs. Fowler, Wright and S. F. Rathbun, three of the authors of the "Revised List."

The nomenclature as contained in the "Bulletin of the U. S. National Museum," is observed in the addendum; the style and numbering as in the Revised List.

237. Mocking Bird.—(Mimus polyglottus.) (Linn.) Boie. A specimen of this bird, an adult male in full breeding plumage, was taken during the month of May. 1881, by John M. Manro at Throopsville, N. Y., a few miles from Auburn. This bird, now in his cabinet, was undoubtedly in its wild state, as it showed no traces of confinement.

238. Orange-crowned Warbler.—(Helminthophaga celata.) (Say.) Baird. Rare. But one individual on record, an adult female, taken September 15th, 1880, by F. S. Wright from a migratory flock of small species, while collecting in a tamarack swamp in Wolcott, Wayne Co., N. Y.

239. Northern Waxwing.—(Ampelis gurrulus.) (Lin.) A rare winter visitant. Not recorded from this section previous to the winter of 1879-80. In December. '79, Mr. J. Hunter. of this place, observed a flock of sixteen of these beautiful birds in a mountain ash tree, about a half mile from Sterling, Cayuga Co., N. Y. Of these he shot twelve. Noticing the white marking on their wings, and supposing this to be an

albinistic form of the Cedar Waxwing, he preserved the two best and brought them to Auburn. These, coming into the possession of Mr. Wright, were at once identified. Two more specimens of this bird were taken about Christmas time of the same year at Penn Yan, N. Y., by Reuben Wood. (Gilbert).

240. Black-throated Bunting.—(Npizal americana.) (Gm.) Bonap. June 6th, 1879, an adult male was taken by F. S. Wright near the village of Cayuga, N. Y. A second male was taken by Mr. Wright in the same locality, June 9th, 1879. Both birds were in full song, and were shot from alder bushes overhanging a brook.

241. AMERICAN HAWK OWL.—(Surnia finerea.) (Linn.) Rich. and Sw. Mr. W. M. Beauchamp, of Baldwinsville, N. Y., writes us concerning this species as follows: "The first Hawk Owl I saw was shot between Auburn and Skaneateles in the Spring of 1850. It was on a Fast Day appointed by General Taylor. The bird was brought to me to identify. The second of which I have knowledge was shot in Cazenovia, N. Y., November, 1874: two were seen together. These are all I have knowledge of."

242. Bonaparte's Sandpiper.—(Actodromas fuscicollis.) (Vieill.) Ridgw. Not a rare migrant. An adult female taken at Owasco Lake, N. Y., Sept. 15th, 1879, and a second female taken in the same locality October 5th, 1879.

243. Baird's Sandfier.—(.1ctodromas bairdi.) (Coues.) Regular migrant. September 17th. '78. Sandel F. Rathbun. October 5th, '79. Charles F. Wright. Locality, Fair Haven, N. Y. Generally found as individuals in company with other Sandpipers; never observed in flocks.

244. BIFF-BREASTED SANDPIPER.—(Tryngites rufescens.) (Vieill.) Caban. One specimen taken from a flock of Sandpipers on the shore of Lake Ontario. Wayne Co.. N. Y., in August, 1880, by Samuel F. Rathbun. A year later, during the month of

September, two more were taken by John M. Manro in the same locality and identified by Mr. Rathbun.

245. Red Phalarope.—(Phalaropus fulicarius.) (Linn.) Bp. Rare. September, 1880, Charles F. Wright, of Auburn. N. Y., captured a fine plumaged male on the shore of Lake Ontario, Wayne Co., N. Y., during a severe storm. The bird was swimming in the lake at the time: now in the cibinet of F. S. Wright, and identified by Mr. Fred T. Jencks. of Providence, R. I.

246. CLAPPER RAIL.—(Rallus longirostris crepitans.) (Gmel.) Ridgw. Mr. Foster Parker, of Montezuma, Cayuga Co., N. Y., while drying his fyke-net on the bank of Seneca River, near that place, May 25th, 1879, took therefrom an adult female of this bird, that had become entangled in its meshes. He failed to secure the male bird.

247. Whistling Swan.—(Olor americanus.) (Sharpless.) Bp. Swans in general are occasionally observed here as migrants, but seldom secured. A female of the above species was received by F. S. Wright in April. 1880. This specimen was shot by Mr. Foster Parker, from a flock of four, while decoving duck on Seneca River.

248. Widgeon. — (Mareca penelope.) (Linn.) Selby. This species, commonly known as the English Widgeon, is exceedingly rare. An adult male, in magnificent plumage, was captured in May, 1880, by Albert Demont, on Lake Cayuga. New York, who presented it to F. S. Wright, under the appellation of a "fine cross between an American Widgeon and Redhead."

249. American Velvet Scoter.—(Melanetta velvetina.) (Cass.) Baird. A common spring and autumn migrant: a few winter. Inadvertently omitted from "The Revised List."

250. Laughing Gull.—Larms atricilla.) Linn. One specimen in immature plumage was taken on Cayuga Lake, N. Y., October, 1879, by Wm. A. Demont, and identified at Auburn.

Notes from St. John, N. B.

During the Winter of 1879, '80, the Cedar Bird (Ampelis cedrorum) weathered the rigors of our climate as late as the middle of January. During the same Winter I also observed a Golden-winged Woodpecker (Colaptes auratus) several mornings in succession feeding on the berries of the mountain ash.

Large numbers of Robins, (Turdus migratoria), remained here during the whole Winter. The latter bird I have frequently observed here during the Winter, but never before or since have I seen or heard of the Cedar Bird remaining in the Province later than September, which is their usual time for migrating south.

I give a few causes that may be attributed to these birds remaining with us through this particular Winter, not that it was milder than usual, or more broken; rather the reverse, for several days the mercury reached the cypher. The abundance of food the Cedar Birds found in the berries of the Mountain Ash was a great attraction for them, for on these they fed sumptously; in fact, gorging themselves to such an extent that they would apparently become stupid, and when in this state allow themselves to be captured by means of a wire noose attached to a fishing rod. If the wire happened to touch them before you succeeded in placing it over their heads, it would not alarm them in the least. would pick at it, turn their heads and examine it, as though it were quite a curiosity. When one was captured the balance of the flock would fly away in great alarm. I kept several of these birds in confinement that I had captured in this way: they, however, proved themselves such very uninteresting pets that I afterwards gave them their liberty.

The abundance of food they found in the berries must have been a great attraction to them, for when the supply was exhausted, and they had entirely stripped

the trees, they disappeared, and did not again put in an appearance until June. which is their usual time of arriving from the south. None of the specimens that I captured had the usual waxen appendages on the secondaries, and were mostly young birds which had probably bred farther north and were only then moving south as scarcity of fool and severity of weather compelled them; but why does not this occur every year? The berries upon which they fed have since been as abundant and no Cedar Birds have appeared at this late season. Their appearance may then be attributed to an erratic migration on the part of these birds. I was quite disappointed on first discovering them to find they were not the Bohemian Waxwing, (Ampelis garrula), for which bird I have kept a sharp lookout, but have not as yet succeeded in securing a single speci-The Golden-winged Woodpecker may have been a wounded bird and unable to perform its usual migration, although he appeared perfectly strong on the wing, and particularly wild.

Several instances have been recorded of Woodcock having been shot in the month of December, but they have invariably proved to be wounded birds, which have been unable to migrate to their southern feeding grounds, and which by the succour of an open Spring have been enabled to eke out an existence till this late season of the year.—Harold Gilbert.

The Swamp Sparrow

Arrives here, (Saratoga Springs), about April 1st and departs, if it does at all, about the first week of October. I have seen it here March 22d, 1879, and Feb. 27th, 1880. It is a pleasing songster, but less voluble than its friend and ally, *M. melodia*. It is not at all shy, and when on the nest can be approached quite close, when it will fly up with a startling whirr and an angry chirp, and after flying a short distance, will alight and run like a

Sandpiper among the bogs, and under the overlanging bog grass, until at a safe distance, when, being joined by the mate, both commence an angry chirruping at the intruder, which is increased as they perceive him searching for their nest, which is usually finished and ready for eggs about the 5th of May, placed on a bog generally on one side of it. One nest taken May 19th, 1877, was under a stump about ten feet from a brook. The nest has no special lining, except an oceasional horse hair and a little fine wire grass. The onter materials are wire grass, mixed with some coarser grasses. It is rather neater in finish than M. melodia's nest, which, however, it resembles more than any other species with which I am acquainted. Its measurements are usually about four inches outside, and two inside; diameter with a depth of about one and three-fourths inches. One nest found May 24th, 1878, was five and a half inches in depth. are usually four or five, the latter being the largest number I ever found.* vary in size and color to a great extent. May 21st, 1878, found a nest and set of four in a bog surrounded by water. The eggs were of a small ground green, dashed and spotted with light brown and lilac. May 24th, 1879, found a set of five, two of which had rings of lilae and brown spots around the smaller end. May 15th, 1880, found a set of five, all the eggs heavily marked with reddish brown. Nest as usual, in a bog, but June 15th. 1881, I found a nest in a bush three feet from the ground, the eggs with usual markings, but the queerest position of any nest I ever found. I could not be mistaken in identity, having seen the bird several times at the nest. The earliest sets I have ever taken were two of five each, May 5th, 1877, and the latest, June 12th and 13th. 1881.— W. P. Tarrant, Saratoga, V. Y.

*We have a set of six taken by Delos Hatch, Oak Centre, Wis., May 27, 1881.— Ep.]

Petrified Nest and Eggs.

While examining the collection of Dr. S. Woolverton of this city I was shown a petrified bird's nest, containing two eggs, which was found in a cave near Woodstock, Ont., several years ago. It seemed to be formed of sticks, which outside were placed longitudinally, but in the eavity laid horizontally. Many were as much as five-eighths of an inch in diameter, but probably increased by their coating of lime precipitate. What had the appearance of moss was laid around the edges. The eggs, also petrified, lay near the centre of the nest, the larger end of one adjacent to the smaller end of the other. The external dimensions of the nest are 5×5 inches, the eavity being $3\frac{1}{2} \times 3$; the eggs both in . size and appearance resembling a chaparrel The whole weighed about two pounds, all the interstices between the sticks having been filled with the earbonate, welding them into a homogeneous stony mass. As a whole, it greatly resembled the lava-like formation of stalactites generally. The species is unknown, but the doctor thinks it belongs to a Pewee, the eggs being abnormally enlarged by the lime formation, as also the straws, which have the appearance of sticks.—G. S. Smith, London, Ont.

"No Man's Land. Some thrilling experiences in the Arctic regions. A lonely place where the sun never sets. Graphic description by a United States Marine." Under the above title appeared in the Boston Herald of March 4, an exceedingly interesting article on bird life and other matters in the Arctic regions. Among the birds taken were "Ptarmigan with their large broods, Snow Buntings, several species of Curlews and Phalarope," also, "Eider Ducks in immense numbers, Wild Geese with their young, Auks, Puffins, Guillemots, "Sea Falcons," which were caught with hook and line for the table. ticle is novel and fasinating.

Recent Publications.

"The Secret of Wings" was a recogized conundrum even in the days of King Solomon, and the curiosity of most observers of our feathered friends must frequently have been awakened on this same point. Mr. Starkweather seems to have shed light on the subject at last, claiming indeed to have reduced the philosophy of flight to so exact a system that simple experiments with a canary or pigeon will sustain his position and ocularly demonstrate the truth of his theory. He goes back to the vertical stroke claimed by Borelli, reviews the downward and backward and the upward and forward strokes so generally believed in; the twisting, rotating and bending of feathers and wings, and other current hypotheses, showing the objections to each. He studies the contrasts and analogies of progression in fishes, insects and birds, the flying-fish, bat, etc.; compares the poising of the gold-fish and the humming-bird, notes and explains the "swallow-tail" in birds that feed on the wing and the same peculiarity in fishes of analogous habits. He shows why the wing is coneave, the quill feathers one-sided, and shows the striking difference of function in those that are at right angles with and those parallel to the body. The design of each is so clearly given that "the way of an eagle in the air" can hardly be called a mystery any longer. He evidently views the subject from a utilitarian standpoint and assures aeronauts that for them his work is "replete with seed thoughts."

"Bright Feathers." Regarding my "Bright Feathers," would say that the work will be complete in twelve or fifteen parts. It will be devoted entirely to our native birds noted for brightness and beauty of plumage colorations.

I am aware that there may be no particular necessity for such a work, but it is affording me much pleasure in its execution. It is all my own work. The plates, initials

and other drawings of nests and eggs, when they appear, are photo-engraved reproductions of pen and ink drawings of my own execution. The coloring is also my own, and fails. I must confess, to arrive at as high a standard of exactness and excellence as I desire. This is owing to frequent interruptions and coloring by lamp light. I give only my evenings and spare moments to the work, and follow it up from pure love of the science. I sent you Part IV,-more on account of the conception of "the oologist" than anything else, thinking it might please you to have it. I had your interesting little publication in mind when I made it.

The edition of "Bright Feathers" is small, (only 200 copies, which becomes large when one has to hand-color all the plates as he can snatch time), and the expense of its publication is just about met by local subscriptions. In the last two numbers of the work I propose to give a duplicate set of impressions from the plates, without color, so that each possessor of a set shall have the figures both colored and uncolored.

I have in mind, after this is done, to destroy all the plates. This will, I think, make the work of some value to bibliophiles and enable me to secure some return for such sets as I may have left. What do you think of such a course? I judge from the tenor of your publication and the occasional bookish strain of the advertisements. that you are curious for rare works, especially those relating in any way to ornithology. Allow me to say that Part III was very hastily executed; beside an error in the scientific name, several infelicities of expression occur, which would have been corrected had I been at home to attend to it. - Frank R. Rathbun, Auburn, New York.

[The above was written in answer to some question put by us about the work "Bright Feathers." It states the case so clearly about a work that is too little known, that we have taken the liberty to publish it, hoping that some of our readers will become better acquainted with "Bright Feathers," as well as the author.—Er.]

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NO. 18.

Malheur Lake, Oregon.

BY CAPT. CHAS. E. BENDIRE, U. S. A.

During these maneuvers I was laying in some tall grass, on a little elevation close to the shore, and watching the birds with a strong night-glass. After a little further hesitation, the main body came up, and for such a number of birds—there must have been at least five hundred of them. they kept singularly quiet, an occasional guttural grunt, resembling the word dooe, dooe, was all I could hear. Their distrust apparently quieted, they now commenced to divide themselves into parties of about thirty birds each, who acted in concert, forming a semi-circle, gradually closing in towards the shore, and driving large numbers of fish with them into the shallow water, and then they commenced their fishing operations in earnest. Such a splashing as took place is impossible to describe; it must be seen to form an idea of it. Each fish was grasped in the middle. thrown up a foot or so in the air, caught in the descent, and swallowed head foremost. I think that from three to four large fish were disposed of in this manner by each bird, the last one or two being probably carried off in their capacious pouch or gular sack. The dexterity with which these birds handled fish fully eighteen inches long was something wonderful, very few getting away from them. As soon as one bird had caught what it required, it withdrew and another would take its place. There was no quarrelling: everything seemed to be done systematically, and I have seldom seen a more interesting sight than I did during the two hours on the night I watched these birds. There appeared to be a good deal of variation in the color of their immense bills, some being almost dark orange red while others were stray vellow. I also noticed that the curious horny excrescence on the upper mandible, characteristic of this species during the breeding season in both sexes, and commonly called "centre-board," varied also considerably in length, height and general shape. To what use this curious appendage is put, it being only developed during the breeding season, and dropped again after this is over, I am unable to tell, or even make a guess at, and I shall leave this for some one else to explain.

On my second visit to these Islands 1 found that most of the shallow platforms, occupied as nests by the Great Blue Heron, contained their full complement of five eggs. As none of these nests were more than four feet from the ground—in fact, the majority average below that—I had an excellent opportunity to pick out all the choice sets of eggs I wanted. There is a good deal of variation in both size and color, even in eggs coming out of the same nest. I think the first egg laid is always, or nearly always, the deepest colored one, and the last the palest. Freshly laid eggs of this species range from a beautiful light green or bluish green tint (the shade is hard to describe exactly) to a pale greenish white, the shell in the latter variety presenting a mottled or spotted appearance. the coloring matter not being uniformly distributed on the shell. The largest egg selected out of several hundred, measures 2.73×1.96 inches, while another out of the same set measures but 2.40×1.82 inches. One of the finest sets in my collection measures as follows: 2.73×1.88 , 2.70×1.94 , 2.71×1.98 , 2.60×1.90 , 2.44×1.84 . The average size, as determined by me from a large number, is 2.65×1.80 .

Similar to the Pelieans, the young of this species for the first week or two are entirely destitute of feathers or down, the bare skin being pale slaty blue. They sit close together on their nests, forming a circle with the heads all turned inward to the centre, and emit a hissing noise, similar to young Wood-peckers, when disturbed. The old birds are very shy; at the least unusual noise they may be seen standing upright on their nests with necks fully extended, and at the slightest sign of danger make out of sight at once. They do not seem to care much for their young, judging from what I have seen.

On this same visit I found the Doublecrested Cormorants occupying the western slopes of the Islands in full force, while the Pelicans occupied the more slieltered position on the east side, and the Great Blue Heron the central parts. Each species kept to a certain degree by itself and did not encroach on the other's territory. About two-thirds of the Cormorants' nests were placed on the ground and raised a few inches from it by coarse pieces of drift, small sticks, etc., the balance on low grease The nests, considering the wood bushes. size of the bird, are small, and were lined more or less with pieces of bark or tule and coarse grasses, and as a rule might be called well constructed. They were all, with scarcely an exception, placed very close to the water's edge. When the lake was rough, the water must have splashed into a good many of them. The eggs, four or five in number, are of an elongated oval shape, considerably pointed at the smaller end, pale green in color and covered more or less with a chalky matter, which can easily be washed off when freshly laid.

They average about 2.42×1.48 inches. The largest set in a number measures 2.86 $\times 1.60, 2.70 \times 1.65, 2.66 \times 1.64, 2.70 \times 1.60.$ A single egg was found measuring but 1.80×1.20 inches. In the early stages the young of this species are also perfectly naked, the skin being a deep glossy black; they are greasy and loud smelling creatures. In fact the Islands are reeking with filth during the breeding season, and it requires a strong, healthy stomach not to be affected by the overpowering smells encountered on landing. I was unable to learn anything about the tactics employed by the Cormorants on their fishing excursions, but I presume they are about the same as used by the Pelicans. The number of pounds of fish destroyed by these birds must be enormous, and there are still larger colonies to be found on the western end of the Lake, but with all this I have never seen more fish at any one time than near the head of the spring mentioned in this article, the water being perfectly alive with them.

Curious Nesting Places.—In the Spring of 1878, I found a Robin's nest on a rock and level with the ground. There was scarcely any attempt at a nest, simply a few weeds around the edge, and the eggs laid on the bare rock. Still, the bird was as noisy at my presence, as if she were defending a much more elaborate structure. On June 18, 1880, I found a Song Sparrow's nest placed in an abandoned Downy Woodpecker's nest, eight feet from the ground, in a dead witch hazel The identification was positive, as I stood within three feet of the nest and watched the female feed the half-grown young. May 20, 1881, took a set of five Cat Bird's eggs. Is this not an unusual number? I have examined dozens of nests of this bird, but never saw five eggs in a set until this year, when M. B. G. and myself have each taken a set of five.— W. W. Worthington, Shelter Island, New

Notes from California.

I think the hardy little Anna Hummingbird has got the start this year of the Hawks in nesting. They have taken advantage of a warm spell this month to nest earlier than usual. Dr. J. G. Cooper notes in his work of the birds of this coast that about San Francisco they have young by March 15th. This nest was brought to me by a little fellow from town. He found it in a cypress tree in a church yard. He had been shooting Hummers with a sling shot, and had frightened this one from her nest, Feb. 22d. The nest I have before me, containing two fresh, pearly eggs, is composed of, outside, bits of bark, moss and the stamens from the blue gum tree blossoms, with bits of lichens fastened on with spiders' webs: inside of thistledown with a few bird feathers. It measures across the top 13 inches, depth inside 3 of an inch; outside, 17 inches: across the bottom, 11 inches. The nest was placed on the top of a limb seven feet from the ground. Last year a friend of mine found a nest March 24th. The House Finches have commenced to nest. I was out shooting the day after New Year's and got a Short-eared Owl-which I took alive and kept for some time—American Rough-legged Hawk, Marsh Hawk, Western Redtailed. Shoveller and Spoonbill Ducks, and three Rocky Mountain Bluebirds.— W. O. Emerson, Haywards, Cal.

Ornithology in the Ark.

The Old Testament gives no details of life within the ark. To imagine a few of them will nowadays hardly be thought irreverent. Every orthodox, at least, must believe that ornithology dates back to the earliest history of man: for Adam named all the animals (though probably he didn't catalogue them as Novum-genus Adami, Erve), etc., with Adam printed as authority after every name.

Let us imagine, then, Ham and Japhet sitting together in the ark. What a won-

derfully interesting gathering of birds this is! says Japhet.

Yes, says Ham, that's why I'm working on this dart.

Good heavens! says Japhet. You're not going to shoot them!

Of course I am. says Ham, contemptu ously. In the first place I shall never again have such a chance to collect; and. secondly, the specimens are in such perfect condition that every one of 'em ought to be in a cabinet. Then you must consider that this is a most extraordinary Fauna; that many of the species have never been obtained in this locality before; and that our records of them won't be of any value unless we can prove our identifications. There's just a pair all round; and we must secure them and label them as fast as possible.

But Ham, you forget, says Japhet, that I want to study them alive, and to have them live and multiply. It is ridiculous to tell me that I can't positively recognize the birds aboard this boat, and make friends of them. Twould be a shame to kill them.

The dispute began to wax hot, when Noah, overhearing, interrupted and said: "My children, leave the birds alone, for they are sacred to the Lord." And it came to pass that it was a bird which first brought them the olive-branch of peace, the message of salvation.

The ark has passed away, and most of the belief in it: and the sacredness of Nature has become a mere song. But, just supposing that the story of the ark were literally true, and that Ham had made his scientific collection while on that memorable voyage, where would living ornithology be to-day? Would it be satisfied with his complete museum, preserved (let us fancy) at Jerusalem, or imported by Barnum to New York?—Ornitholigi-cus(s).

Capt. Chas. E. Bendire, so long stationed at Fort Walla Walla, is to make his head quarters at Fort Klamah, Lake Co., Oregon.

OÖLOGIST.

A MONTHLY MAGAZINE DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, EDITOR,

With the co-operation of able Ornithological Writers and Collectors.

Subscription-\$1.00 per annum, Foreign subscription \$1.25—including postage, Specimen Copies Ten Cents.

JOS. M. WADE, Norwich, Conn.

EDITORIAL.

Two Young Artists.

Among our subscribers and contributors are two young men, or rather boys, one on the Eastern slope, and the other on the Western, both troubled with the same disease (hip) that has not only robbed their boyhood of its pleasures, but has prevented them from acquiring in the usual way the ordinary education due to boys of their age. But this has been overcome by natural talent and the careful attention of fond parents. Both are natural ornithologists—keen observers, and although confined often to the house, are not behind the brightest of their age.

Both of these boys have taken to the pencil and brush, and if they cannot climb big trees they can paint them, and can also paint birds at this present time that fifty years ago would have given them a reputation world wide. All they need now is patronage to develop greater talent, and this should not be wanting, for there are plenty of our readers who can afford to give these boys special orders for such birds as they might select. This would not only encourage them, but would be a great benefit to the science in devel oping talent for future book illustration. If this strikes the reader as favorably as it does the writer, they will address for further information, Edgar A. Small, Hagerstown, Maryland, or W. O. Emerson, Haywards, Cal., both of whom are making valuable collections of skins and eggs.

Five Eggs.—On another page will be found a statement by Mr. Worthington that he and his friend Griffing had taken a set each of five eggs from the nest of the Cat Bird, and enquiring if five is not an unusual number. In 1878, after finding about fifty of their nests, we at last found one containing five eggs, which are carefully preserved in our collection. have never since found a set of five. For years we have been anxiously looking for a Robin's nest containing five eggs, but without success until this day. (May 22), when we found the long looked for set of five eggs. Three were of the usual size, and two somewhat smaller—one of which was fresh or not fertile, the others were well advanced in incubation. The number of eggs laid by the Cat Bird and Robin is positively four. From old age or accident a less number may be laid, and in extreme cases five or even more.

Since the above was written Snowdon Howland reports a set of seven—two large and five small, the latter fresh, while the former were slightly incubated. This is good evidence but we would like to hear from others who have taken sets of five or more.

Collector's Movements.—Mr. John M. Howey, Canandaigua, N. Y., is to spend the collecting season on the Kansas and Cottonwood Rivers, about the ninety-seventh parallel.

Mr. M. Chamberlain of St. John, N. B., and Mr. H. A. Purdie of Boston, Mass., will do the collecting season in the Madawaska district, near the Maine, Quebec and N. B. borders. May their finds be equal to their zeal in the cause.

Mr. Fred. T. Jencks of Providence, R. I.. and Mr. H. B. Bailey, of New York, are now collecting in Dakota. Mr. Jencks expects to remain there until July. He finds the season very cold and backward, but is having good success, and will have many rare specimens to offer, for which refer to our advertising columns.

Brief Newsy Notes.

Hawk Incubation.—A Red-shouldered Hawk finished her nest and laid the first egg May 2, 1881. May 5th, there were three eggs; May 20th, no change was to be seen; visited the nest again May 30th, and found two hawks about a day old. Cooper's Hawk occupied twenty-seven days in incubation. My experience would indicate that hawks occupy from twenty-six to twenty-eight days for incubation.

—F. H. Carpenter, Rehoboth, Mass.

Notes from Shelter Island.—The Little Blue Herons must have been unusually numerous along our coast last Summer. A gunner brought one to me on Aug. 16th, and said he saw two. May they not have been stragglers from the same flock mentioned by Mr. J. N. Clark, in the September number of O. and O.? My specimen corresponds exactly with his description.

A very prolific English sparrow inhabited one of my bird boxes last Spring. Her first set was six eggs, the last one laid being rather light colored. I took these, and she immediately begun and laid another set of six, the last egg being very pale. I took these, and she laid one almost pure white egg and gave up the contest.

May 23, 1881, I went to a well-known breeding place after a few sets of Bank Swallow's eggs. As I neared the place in a small sailboat, I thought it very curious that I saw no swallows flying about the bluffs as they usually do: but on landing and beginning to dig. I soon saw the reason. The previous two weeks of continual rainy weather had totally exterminated the entire colony. Most of the burrows contained from three to eight, and from one burrow I removed ten dead swallows and two eggs, one of which is a trifle larger than usual, while the other is smaller than a Ruby-throated Humming Bird's.— W. W. Worthington.

Turkey Buzzard.—Oliver G. Brown, of North Stonington, Conn., shot a Turkey Buzzard. April 20th, that measured six feet from tip to tip of its wings. It was shot on the ground while feeding on the dead body of a hen. There were no other Buzzards about. It was mounted by A. M. Taft. of Westerly, R. 1., and is now in the possession of George D. Brown, of Stonington, Conn.

Golden-winged Warbler.—We have just handled a beautiful Golden-winged Warbler (Helminthophaga chrysoptera), shot this morning at Higganum, Conn., by Mr. Harry W. Flint of Deep River. This is one of the rarer Warblers. We have seen but five here (Portland), during the last eight years. May 19, 1875, when watching some other Warblers in a smull piece of woods, one of this species, with out spread wings, suddenly dropped beside our feet. It was very much excited and must have been chased by a Hawk.—J. H. Sage, Portland, Conn., May 17, 1882.

"Wood Sparrow."—In your April number a correspondent asks for information concerning a little bird he has termed the "Wood Sparrow." I would suggest, from the color of the under mandibles, that it is, doubtless, the "Tree Sparrow," (Spizella montana.) This species is quite abundant in the Spring and Fall, and a few individuals may possibly breed in the Adirondacks of New York, or the mountainous parts of the New England States. The male has a pretty little song, in which it indulges quite freely during its Spring sojourn with us. If well cared for they thrive in confinement, and the writer has known them to become quite tame and familiar.—S. L. Willard, Chicago, Ill.

Red-headed Woodpecker. — Mr. A. H. Helme's note on this bird calls to mind an instance of the fly-catching habit of the Hairy Woodpecker. In June, 1881, while spending a few days in the wilds of the Adirondacks. I found a nest of this bird in front of my camp, in the decayed limb

of a pine, containing several young birds. Every morning one of the parents occupied itself quite faithfully in capturing insects (in nearly every case large and easily discernable ones), in the intervals of its more dignified labor of searching the bark of the trees. These insects were always fed to the young. Perhaps it is not generally known that fly-catching is quite a common part of the Woodpecker's every day life; but the instances are so many, and come from such varied sources (including nearly all the species that are more or less well known), that it can no longer be considered an individual peculiarity.—S. L. Willard, Chicago. Ill.

Eagles in Ohio.

In Central Ohio Eagles appear to be more numerous in mild Winters. This is probably due (as is usually the case in other localities), to the severity of the weather farther north, where the ponds and rivers are closed with ice and the woodlands are covered with snow, placing food beyond their reach. The following is taken from my memorandum and given in rotation just as the dead birds were received from various counties of the State: 1878-79 -Mild. Dec. 2. Bald Eagle from Delaware County: Dec. 4. Bald Eagle from Marion Co.: Dec. 18, Bald Eagle from Union Co.: Jan. 4. Bald Eagle from Licking Co.: Jan. 12, Bald Eagle from Union Co.: Feb. 9, Golden Eagle from Franklin Co.; Feb. 20. Bald Eagle from Union Co. 1879—'80—Severe in January and Dec. 10, Bald Eagle from Franklin County: Dec. 13. Bald Eagle from Union Co.: Jan. 2, Bald Eagle from Franklin Co. 1880—'81—Severe. 4. Bald Eagle from Hocking County; Dec. 12. Bald Eagle from Delaware Co.; Jan. 23, Bald Eagle from Madison Co. 1881— Dec. 12, Bald Eagle from '82-Mild. Fairfield County: Dec. 13, Golden Eagle from Franklin Co.: Dec. 16, Bald Eagle

from Montgomery Co.; Dec. 20, Bald Eagle from Morrow Co.: Jan. 9, Bald Eagle from Franklin Co.: Jan. 12, Bald Eagle from Union Co.; Jan. 22, Bald Eagle from Morrow Co.; Jan. 24, Bald Eagle from Franklin Co.; Feb. 23, Bald Eagle from Franklin Co. The last specimen of Golden Eagle (Aquila chrysaetus) was killed a few miles west of Columbus. It was said to have killed several young calves in the neighborhood, which the bird was seen feasting upon. A number of the Bald Eagles in the above list were young birds, lacking the white head and tail, and for the most part were killed with rifles, a few with shot guns, and two by the use of strychnine upon a dead carcass. -Oliver Davie, Columbus, Ohio.

[Mr. Davie writes that he has omitted three from the above list, taken during the Winters of 1878—'79. They will probably be given in a future list.—Ep.]

The Great-horned Owl in Texas.

This Owl is very abundant in Maverick county, and the nest easily found. They are built in the open forks of the mesquite, at a height of from eight to twelve feet from the ground, and are constructed of large dead sticks, with generally no lining, except the sticks are somewhat smaller and finer on the inside, though sometimes there is quite an extensive lining of fur, feathers and litter, made by the birds skinning their prey in the nest. The nests average two feet in diameter by about eighteen inches high, and are very slightly hollowed. They nearly always build a new nest, though sometimes repair the nest of the previous year, and occasionally they use the nest of some other species. One set of two was taken March 9th, from the nest of a Caracara Buzzard, from which a set of three eggs was taken last year. An entire new nest was found built directly on top of the old nest. The upper one contained a set of two, fresh, and the lower one an addled egg, probably of last year, but in a good state of preservation. Out of about twenty nests examined, four had three eggs each. This year they began nesting two weeks earlier than last, the first nest being found Feb. 11th, with one egg. The local ity generally chosen is a low mesquite. on high ground, from which the Owl when on the nest can see in every direction for some distance. They are very alert while setting, and will the from the nest before one gets within fifty yards, though in some cases they sat closer. The mate was always to be found close by, in nearly every case, in the nearest tree. Most of the sets of fresh eggs are found in the last week of February. Deserted nests of the Great-horned Owl are often occupied by Hawks, instead of the Owls using the old Hawks' nests, as in the North. -Edgar A. Small, Hagerstown, Md.

P. S.—My collector reports a set of four fresh eggs, found March 9th. This nest was built of sticks, as usual, and lined with litter. It was in a mesquite, twelve feet high. The bird sat very close, did not leave the nest until my friend was nearly under it.

Black-backed Woodpecker.

I notice in the O. and O. for March, page 101, a note to the effect that there are but two instances known of the Blackbacked Woodpecker (P. arcticus) being taken in Michigan. It may be of interest. therefore, for me to state that I procured a male specimen of this species on the south branch of the Pine River, Mich., in 1879: the exact date of capture I do not remember, as the specimen has been disposed of in my exchanges to Mr. George Woolsey of New Haven, Conn., but it was somewhere between the 17th and 22d of November. I have every reason to believe that this bird is not a rare Winter resident of the "pineries" of that State. With us this Woodpecker is rire. I have, however, taken several specimens in different parts of the State and know of its being taken in the immediate vicinity of Bangor. On June 16, 1881, I met with a pair on Alligator Stream, Hancock County, which, judging from their actions, had a nest near by:

but, as we were lost in the woods at the time, our camp was the only nesting place I had any desire of finding.— N. A. Eddy. Bangor, Me.

Climbers and Climbing.

THE STADDLE. Before the advent of de cent climbing-irons the "staddle" was in common use in our woods in ascending big-bodied trees. This simple method was overlooked in Ingersoll's recent treatise, so we make mention of it here. The only outfit required by the hawk-hunter or squirrel-party using this primitive fashion is a small, short-handled axe. A leather sheath protects the head of the axe, and it can be carried handily in a game bag slung over the shoulders. Near the scene of action a tall, slender, young walnut or chestunt of the proper length is selected and felled; the top and limbs are cut away. the stubs of many of the limbs leaving good foot rests here and there. This natural ladder is then carried and raised at a slight angle, so that the tip rests securely against the base of the lowest limbs of the big tree to be climbed. Many of these staddles I have helped to cut and raise in pursuit of the eggs of birds of prey, and have found many more snugly hidden away in underbrush and used by squirrel-hunters one or two seasons. Now and then the trunk of an old hard tree can be overcome by "shinning" up some young and tall sapling near by and swaying the top stoutly till a big limb of the tree can be grasped. Don't forget however in this case to tie your arboreal trapeze to the limb so your retreat will not be cut off. To the use of the "staddle" will always lie the objection that no farmer likes to have any vigorous standing sprout cut in his wood lot. But the rope, the staddle and kin dred devices are now superceded here by climbing-irons, and an article in the next number of this journal will try to show the economy in time and labor effected by these landy implements.—J. M. W.

Purple Grackle (Quiscalus Purpureus), commonly known as "Crow Blackbird." During a visit to Plum Island, the home of the Osprey, it occurred to us that the Crow Blackbird was not at all particular where its nest was placed. On this island there are immense quantities of this bird and their nests were in every conceivable position. Under every Fish Hawk's nest that were in trees, there were from one to five or six nests of the Crow Blackbird. Wherever the Osprey's nest had rotted off the top of the pepperidge tree it left a cavity in the top of the trunk into which this Blackbird placed its nest. They were also very plenty in the trees alone and also in the bushes within two feet of the ground. On the main land we have found them singly on maples by the roadside: also saddled on the limbs of immense elms, in the topmost branches; also in Norway spruces, both small and large. Wherever circumstances favor it they breed in colonies. We know of one aged white pine that contains from fifty to one hundred nests each year, making it appear like an immense bee-hive, as the birds were continually flying to and from the tree. During a recent visit (May 17) to the home of Willis P. Hazard, of Westchester, Pa., where the Crow Blackbirds were breeding very plentifully in the long. horizontal branches of the white pines on the lawn. There was nothing unusual in this, but we noticed in the woodbine that twined around the pinza posts, a large nest, unusual for such position. It was just out of reach, but a step-ladder enabled us to look into the nest, which was filled with young Crow Blackbirds. The family and visitors were continually passing under this nest.

Correction.—On page 131, Vol. VII, No. 17, J. G. Cooper should read William A. Cooper. No one regrets such mistakes as much as we do, but occasionally MSS comes to us that is very difficult for us or the printer to decipher.

Woodcock and Black-duck. — Passing through an old pasture Thursday, May 4, I started up a Woodcock from a small thicket, which was immediately followed by four more, an old bird and four young, the latter so large as scarcely to be distinguished from the mother bird, except that she flapped her wings as if flying with difficulty and made a sort of whining cry. I don't think I ever saw young of that species so early before and very mature eggs must have been laid exceedingly early, perhaps before April, though I do not know how long time is required for their incubation. One of my neighbors, sitting by a window, had his attention called to a brood of young ducks running across the street. It was an old Blackduck and her young. He saw them enter a cow-yard, and in one corner she called her brood under her wings and covered them. As he went near she flew some fifteen rods and watched his movements, quacking her displeasure as he proceeded to capture her young ones. He secured ten of them, all the brood but two. After he had examined all he cared to he set them at liberty, and together they started on a run through Main street, continuing for forty rods before they turned aside, a distance which they accomplished inside of five minutes; for the little things could run like squirrels. This ocnurred on the 5th of May, and implies that the eggs must have been laid much earlier than I supposed was customary with the species. There was no water near and they seemed traveling from one creek overland to another, nearly a half mile away.—J. N. Clark, Old Saybrook, Conn.

Summer or Wood Duck. — Mr. Edwin Sheppard, the eminent ornithological artist, is engaged on a plate of the above duck, or a family of them, which is to be lithographed and hand colored, and intended for framing. In due time it will be offered at a moderate price through our advertising columns.

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NO. 19.

Large-billed Water Thrush.

My first acquaintance with this bird was about ten years ago. I had then collected most of the common Warblers and become acquainted with their notes so well that I readily distinguished anything new. Tramping through the woods about the middle of April an unfamiliar note reached me, and my attention was instantly attracted by its clearness and strength. Carefully and cautiously I approached the place whence the song issued and traced out the singer perched on the dead lower branch of a Beech tree, and shaded by the branches above, though there was no foliage on the tree. It was a dark spot, for the trees and shrubbery were thick, which was the border of a swamp through which a small stream slowly found its way. I was greatly charmed with the bird and thought I had never heard so fine a singer. Shoot him? Indeed I did not. I went home and studied him up in "Samuel's N. E. Birds," and he led me a little astray, so that in my next experience—finding the nest and eggs—I simply recorded them 187, a bird which I had already taken in the Fall and never dreamed that this was another bird. There was a place where I usually crossed the reservoir brook in going through the woods, by leaping from one jutting rock to another, and thence to the opposite shore. This was the narrowest place in the swamp, and right where I crossed a tree had been prostrated by the wind, leaving a shallow pool of water with jutting stone, so that it was easy to pass over. Stepping across this space from one

stone to another, looking more to my footsteps than anything else, I caught a glimpse of a bird flitting across my path like a shadow, and out of sight in an instant. I did not see what it was, whence it came, nor whither it went, but when the next day the same thing occurred in the same place. I was on the alert and saw whence it came, and wasn't I delighted to find snugly concealed in a little nook, the cosy nest and five speckled beauties! The tree, whose roots had been removed, had left a pool about eight by twelve feet, and of course, the roots and mud that had once filled this place, now stood perpendicular like a wall against the side of the pool. and there snugly hidden among those roots was the nest, about eighteen inches above I have since found a number the water. of their nests, and three-fourths of them. have been in similar situations; sometimes a little higher above the water, but oftener within a foot or less of it. The nests are sometimes quite bulky, formed of partially decayed leaves which I have seen the female draw from the mud and work into the nest all dripping and soft with the adhering mud, and which gives the nest such a similarity to its surroundings as to be scarcely noticeable. The color of the bird when snugly setting on the nest adds to the illusion, and once hearing a male sing near such an upturned tree, I penetrated to the place and carefully scanned the surface over without discovering anything; while one week later hearing a bird there again, I made another investigation of the place to find in plain view a nest with five young. These leaves when

dried form quite a compact structure for the reception of the inner nest formed of more mixed materials, some grape vine bark, green moss, small stems, grass, and in one from a hemlock swamp a large proportion of small, slender hemlock twigs. Fine grass enters largely into the composition of the lining, and in one nest I found mixed considerable cow's hair from the adjacent pasture, also a black moss that grows from the stones at the bottom of shaded woodland streams. In some a few fine roots and the red stems that bear the seed capsules of common green moss. The nest is usually set back into some recess among the roots where a tuft of them closely overhang it. The bird does not build any arch to its nest, but always seems to seek for a natural one, and I have seen a nest built upon so slight a foundation to secure the desired covering, that a large heap of nesting materials that had failed to find lodgment were piled up under the nest enough to fill a peck measure. I have found two exceptions to this site, both on a brook bank; one in a small clump of Clethra around the basis of which had accumulated a heap of leaves on the verge of the bank, and the nest was inserted deep among these leaves about two feet from the water. This nest was occupied two seasons, and although I passed within a few feet of it many times, and searched dilligently, it remained undiscovered until occupied by a brood of young. The second season I secured a set of eggs from this nest. The other exception alluded to was where a stream had washed away its bank in the woods, and the turf dropped over the washed out place. Under this turf was securely concealed the nest which I could not have seen had not the bird sprung out as I passed very near. This was the 12th of May, 1881, and the eggs. nearly fresh, were five, which appears to be the usual number, but the same day I secured another extreme set of six. Incubation was later than usual that season.

for I have taken complete sets by May 7th, and have seen young out of the nests by May 23d in some seasons, but I think the young birds mature rapidly. It is not difficult to find the nests after they have young, for the birds are then very demonstrative and feed them almost constantly, being by no means shy about it. I found four nests with young in 1879, and watched for them the succeeding year, and every pair occupied the old nest, and gave me four nice sets; but 1881 came and they all failed me but one. They found new nesting sites and eluded me. Only one bird has fallen short of the standard number of five successively. Two successive years I secured completed sets of only four in the same nest. This bird was also later with her nesting, having fresh eggs the 17th and the 24th of May for the two respective seasons. One of these sets taken in 1880 is before me and is a fair representative set of the species, though I observe that different sets differ very materially in markings. These four have the following dimensions: 81×65 , 75×65 , 78×63 , $75 \times$ 63. The ground color is a pure white with a shining gloss like a Woodpeckers, and the spots of a reddish brown with obscure lilae ones intermingled, and are thinly scattered all over the egg, and also gathered so thickly as to be confluent in a ring at the larger end. Most of the spots are small, mere speeks, but many are nearly as large as a small pin head, and in one of the specimens the majority are of that size. I am fully persuaded that the bird never attempts to rear a second brood or even lay a second set if robbed of the first. have looked sharp for a diffierent result without any encouragement, though I have observed the birds often remaining in the vicinity through the Summer, but very quiet. Mr. Wm. Brewster in his "Birds of West Virginia." illustrating the song of this Water Thrush in syllables, has been so successful that I am always reminded of it whenever I hear the bird sing, and can

think of no other combination so fitly to represent the notes—"pseur-pseur-per-seser"-and yet the termination is hardly represented, which is often a rapidly spoken jingle, in a quickly diminishing tone, though the first syllables are very slowly and distinctly rendered. The ordinary "chip" of the bird bears some resemblance to that of the Hooded Warbler, being equally clear and sharp, but rather louder and deeper in tone. The birds come early, and from the places they affect would not be observed, unless they commenced singing. My earliest record of hearing their song is April 19th, 1880, but my friend Harry Flint shot one of the birds Feb. 15th, 1882, though he heard no song from it. It is amusing to see the bird delivering his song. He throws back his head, and exerts himself violently to give force to his notes, taking a few steps along his perch and balancing himself vigorously between every deliverance. I have taken sets of their eggs with spots very diminutive and thinly scattered, but still enough gathered together to form a ring. I have taken sets also where the markings were so numerous as almost to conceal the ground color of the eggs, as completely spotted over as a Skylark's, though of a different tint. Another set has very dark markings, almost black, less numerous, but averaging larger and more distinct, especially in the ring at the large end, measuring about the same— 84×63 . They are usually a little pointed at the small end.

Mr. H. B. Bailey has given me the following description of a nest and set which I sent him in 1880. He says: "They are hard eggs to describe, unlike anything else I have, and description fails to do them justice. Eggs glossy, white ground, spotted all over with brownish spots and blushes and a few hair-like lines, with a few under shell markings of purple, measuring 76×62 , 74×60 , 74×60 , 75×61 , 74×60 . Nest outwardly of dried leaves, moss and grass lined with finer grass, and

red moss seed fronds. I found the nest of Nevins lined with these same red things in Maine, and take them to be some part of moss."—J. N. Clark, Old Saybrook, Ct.

GREAT BLUE HERONRY.—I went to a heronry near here and took one hundred and three eggs (twenty-five sets) of the Great Blue Heron. They ranged from two to six Audubon says the Great in each set. Blue Heron lays three eggs, and Cones in Birds of the N. W. says: "Two or three eggs are laid, probably never more." I have taken about two hundred and seventy eggs of this bird and have always found from three to six eggs in a full set. In only two cases have I found six, and 1 consider that an unusually large number: but five is very common. In my last expedition the sets were as follows: nine of five eggs, nine of four, three of three, three of two, (all fresh), and one of six, besides a single egg.—Morgan K. Burnum, Syracuse, N. Y.

A STRANGE PREDICAMENT.—Having seen a strange bird fly down into some long grass I walked up to "flush" it. I found an Orchard Oriole, which was so embarrassed by the tall, thick grass that he could not get free enough play for his wings to fly up. Less frightened than might be expected, he made his way along to my companion's foot, scrambled up to his knee, and then took flight with ease.—H. D. Minot, Boston, Mass.

CLIFF HAWK'S EGGS.—An egg, kindly brought me from Colorado, is, so far as circumstantial evidence can satisfactorily determine, a Cliff Hawk's (Falco Mexicanus). It measures about 2.20×1.60, and is of light reddish ground, freckled and spotted with medium Vandyke brown.—
Henry D. Minot.

BLUE BIRDS' EGGS.—B. W. Everman, Bloomington, Indiana, reports taking a set of five eggs, April 2d, from a box made on purpose. This is the earliest report for small eggs this season.

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OÖLOGIST.

A MONTHLY MAGAZINE DEVOTED TO

THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, EDITOR,

With the co-operation of able Ornithological Writers and Collectors.

Subschiption—\$1.00 per annum. Foreign subscription \$1.25—including postage. Specimen Copies Ten Cents.

JOS. M. WADE, Norwich, Conn.

EDITORIAL.

Brief Newsy Notes.

Bald Eagle's Egg.—Mr. Snowdon Howland, Newport, R. I., reports receiving from his collector in Florida a single egg of the Bald Eagle. It was taken from one of those immense Yellow Pines common in the South. The nest was sixty feet up with few limbs to assist the climber. The nest was four feet by three feet and contained but one egg, which the collector took not caring to repeat the climb.

Nuttall's Works.—The copy of Nuttall advertised in our columns with William Darlington's autograph has been been sold to A. F. Park, Troy, N. Y.

John J. Audubon's copy with marginal notes and autograph; also autograph of his son John W. Audubon, is in our library, also the copy formerly owned by J. J. Thomas, one of the Editors of the Country Gentleman.

We would be pleased to place on record the whereabouts of any of the rare old works on ornithology, as well as portraits of the same.

"Curious Nesting Places."—My attention was recently called to a Blue Jay's nest which is built in the lattice work to the front veranda of Mrs. E. Wheeler's residence, Poquetannoc, Conn. The nest is built in the usual manner, within six feet of the front door, and at the time of my visit, June 10th, contained two young

birds. The front door was open and small children were at play in and out of the house, and on the veranda. Yet during my stay the old birds came several times to feed and nestle the young without showing much fear. This is such an unusual place for a Blue Jay to build it seems to be worthy of record.—G. R. C., Norwich.

Golden Eagle's Nest.—A boy found a nest of the Golden Eagle about April 1st. I went to it and could look into the nest from the bluff. It was in a large tree, but I could not possibly get to it, and so I shot the female, and a fine specimen it is. I could not get a shot at the male as he was too shy. I am told that he has now got another mate and are at work nesting again. They have bred for eight years in that locality. I will interview the parties further.—Chas. A. Allen, Nicasio, Cal.

Early Finds.—March 19th Junius A. Brand, of this city, called on us with a set of two Barred Owls' eggs, perfectly fresh. The nest was in a large hollow chestnut, some thirty feet high. This is a very early record. The eggs were brought to us fresh from the nest and unblown. Mr. Brand also found on the same date a Great-horned Owl's nest in an immense White Pine tree, about fifty feet up. The nest contained two young about one week old. Mr. B. had harried this pair for three years in succession, but was always too late. Each season he found them with young.

Our Country.—March 29th Harold Gilbert, Saint John, N. B., wrote: "Song Sparrows arrived on the 6th, and are the only migrants that I have yet seen. Our season is very backward, there being on an average from two to three feet of snow in our woods." April 5th—seven days later, Edgar A. Small, Hagarstown, Md., wrote: "Spring is here at last in good earnest, the Peach, Apricot, &c., being in full bloom and the Elms and Maples are out. Purple Martins, Chipping Sparrows, etc., are here in full force." Birds of rapid flight can certainly take their choice of temperature.

Branting at Monomoy.

Monomoy Island lies four miles south of the southeast corner of Cape Cod. At its north end is a small island on which the club have a snug and comfortable house. The writer was the guest of L. O. Slocum, Esq., of the Monomoy Brant Club, from March 25th to April 1st.

The Brant. also called Brant Goose, (Brenta bernicla.) winters on the coast of the Southern States. They are said to be abundant off Currituck Sound, N. C., and very difficult to get except from batteries. Early in March they begin to appear in the bay formed by Martha's Vineyard, Nantucket, Monomoy and Cape Cod. In this large enclosure are the feeding grounds to which they repair each year. When feeding they tip up after the manner of many ducks, but I was not able to learn of their diving. They feed upon the tender shoots of a kind of grass that grows in shallow water.

Extensive flats are uncovered at low tide for a distance of one-half to three-fourths of a mile to the westward, and two miles to the northward of the island. Along the outer edge of this flat the gunners' boxes are sunken. They measure 6×4 by 31 feet deep, and will contain three men. The boxes are occupied from the time the water begins to cover the flats until it subsides and leaves bare ground. The rising tide makes the Brant restless as they are put out of reach of their feed, and greater or less numbers visit the feeding grounds at the north of the island. wind, particularly a sou'-wester, disturbs the water and causes them to seek a more quiet place, and is especially desirable. As Brant do not fly close to the shore it is only while the water covers the flats that they can be intercepted by the boxes. Each box is provided with about thirty wooden decoys and two live Brant, so fastened as not to impede their walking and swimming. They are held in check by a cord running to the box. The Brant tenders

say the sham decoys are worthless, as old Brants readily recognize the deceit, and large flocks are rarely tolled in by them. On the other hand, when the wild birds come near, the tame decoys are made to flutter by pulling the string. On a nearer approach they readily answer their calls, thus enticing their own species on to destruction. It was my fortune to get the best shot offered to our party. George Bearse, a Brant tender, and myself went to the North Bar box. The day was cold and the wind northwest. Suddenly a flock of about 35 Brant came from behind at a distance of perhaps 200 yards to our left. and swinging around into the wind they dropped into the water, heading directly for us. Five were quite a distance in advance of the rest. Our two tame decoys gave their rolling gutteral hawk in answer to the on-coming flock. The five ahead swam among the wooden decoys, discovered their true nature, and swam back to the rest. All were now turning to go away, and George said: "Ready! one, two. fire!"

The smoke settled so we could see nothing, but both held on to the spot. In an instant it cleared and the smoke from two more barrels shut off our view. In another second we saw what we had done. George sung out, "After the wounded!" and both sprang out into the water, only knee deep at first, but gradually growing deeper. After a tedious chase, four of the five wounded were secured and the nine dead, making thirteen. While on our way to the box with the dead in hand a single Brant was seen coming. It lit among the wooden decoys and was easily secured. Single birds are frequently found among the lifeless decoys, and apparently with no sense of danger. The Brant are generally very shy and will not permit boats within several hundred yards.

With every warm southerly wind new flocks arrive and alight among the others out in the bay, where long lines of them, and often acres, may be seen. Occasionally a flock rises, and mounting high into the air, flies over the island to the eastward. These are going North, and although the weather be very severe they will not return until the following Oct. or Nov. The feeding grounds of the Brant are few and far between; as near as I can learn, they make but one or two stops between North Carolina and the Cape. The next is off Prince Edwards Island. Theuce they continue their flight, and Kane at the far North saw them going still farther. Their nests are as yet undiscovered. slightly winged birds are caught and kept for decoys. They soon take to eating corn, and often live many years in confinement. When well taught they seem to understand for what they are kept, and at the word run into the basket in which they are carried.—Fred. T. Jencks, Prov., R. I.

Prairie Hen-Its Nesting Habits.

In this locality the Prairie Hen (Cupidonia cupido) commences laving the latter part of April. On May 6th, this year, I took two full sets of eggs consisting of thirteen and fifteen respectively. number of eggs laid by a single bird varies greatly. Nests containing all the way from eleven to twenty-one. I have seen two nests this year containing twenty-one eggs each, and one containing eighteen. A friend of mine reported finding one with twenty-four. Out of a large number of nests examined by me fourteen is the average number. I have never measured the eggs, but they are small for the size of the bird, being about the size of the common crow. They are of a light brown color and sometimes the first two or three eggs laid are marked with small, very dark brown spots. One set of thirteen in my collection is all beautifully marked in this way. Another set of eleven is almost pure white. The nest is always placed on the ground. A cavity is hollowed out about three inches in depth and the bottom is covered with dry grass. Their favorite place of

nesting is in the prairie grass, which affords an excellent place of concealment. I have sometimes found their nests on Fall plowing and in corn fields. The birds are very tame during the breeding season and will sit on the nest allowing a person to approach within a few feet before leaving the nest, when as many others do, they will pretend to be crippled for the purpose of alluring the intruder from their nest. They will even allow themselves to be captured on the nest, when they will fight with fury.

One of the most destructive agents to the nests of these valuable birds is the prairie fires. Most of the stockmen do not burn their hay ground until the middle of May, and so thousands of eggs perish every year. In passing over one of these burned fields I counted five nests containing seventy-eight eggs, on about one acre of ground. The female in two instances was sitting a few feet from her nest on the The period of incubation is twenty-one days. Prairie fires also destroy large numbers of eggs of the Mountain Plover and Meadow Lark, which also breed here in large numbers.—Horace A. Kline, Vesta, Johnson Co., Nebraska.

Field Glass.

Having studied birds more or less for several years with the aid of a field or marine glass. I propose in a series of short articles to give my experience in using the same. Having never been a collector I shall have nothing to say on this point. The most that I can hope to do will be to suggest a pleasant and easy way for beginners to become acquainted with most of the birds to be seen during any season, and to map out a course of study, which if somewhat out of the beaten rut, will be found quite as pleasant as instructive.

People who have no wish, strictly speaking, to become ornithologists or cologists, do desire sometimes to become better acquainted with our resident birds. To do

this successfully I know of no better substitute for powder and shot than a good field or opera glass. Besides the resident birds now and then the patient observer will be richly rewarded by a passing acquaintance with many of those migrating north. A bird thoroughly shot with the glass is forever alive and fixed in the mind, and a hundred little ways and habits have been noted, which would have been entirely lost if shot in the usual manner.

To know a bird thoroughly it must be watched very closely, and it is often the case that many habits and queer ways are noted before enough of the descriptive points are obtained to determine the species. As the bird flies here and there its manner of flight is soon known, and when seen on the ground the first thing to be observed is whether it hops or walks. Having obtained all the points as to size, color, particular markings, etc., with the aid of any good text book, the species may soon be determined. There are some difficulties in the way, and at first some errors may be made.

With the novice the female Purple Finch might be taken for a Sparrow and the Hairy and Downy Woodpeckers would perhaps cause a little trouble, but in a short time nearly all birds will be recogognized at first sight. A bird should be studied for color against a dark background; if seen in the face of strong sunlight everything becomes black. unheard of and impossible birds are described, because this fact is overlooked. Colors are relative and seen under certain conditions they cease to have value. The Tanager seen against the dark green of hemlocks or other dense trees is all alive with brilliant red; when seen against a light sky it becomes a black bird. In one of my Winter walks I was met by a friend who had just seen a flock of Blue-birds. doubted the statement as it was a bitter cold day, and the ground was covered with snow. I took a course as directed by him to find them, and soon overtook the ramblers, but they proved to be, as I had suspected, slate-colored Snow-birds, (Junco hyemalis.) The effect of the snow had somewhat enhanced their color, and my informant undoubtedly believed that he had seen Blue-birds. Measurements obtained at glass range may be quite easily determined by comparison with the dimensions given in the text-books, of some familiar bird like the Robin or Blue-bird. For small birds the Chiccadee or some familiar Sparrow can be taken. In order to fully illustrate this subject the reader will need to go with me occasionally to the Suppose we have taken a cold Winter's day for our walk. The music of the crisp snow under our feet will enliven the hour, and the bracing health giving air will bring the blood tingling to our cheeks.

If no birds are seen the walk will not have been wholly in vain. But we shall find the birds out, and with the first meet, perhaps, several somewhat smaller than sparrows, our lesson begins. They are naturally a little shy at first, and as they fly away to the trees we make our first note that they were eating the whitish, waxy coating of the bayberry nuts. Becoming less timid they soon venture out of their hemlock or juniper coverts and go about their business. We shall now notice the prominent, and always constant bright yellow rump, with more or less of vellowish on the wings, and that the upper parts are continuously streaked with dark, olivaceous brown, and also that the bill is quite acute. With this we are prepared to say that our birds are Pine-linnets (Chrysomitris pinus.) Other birds will be seen and undoubtedly something new will be learned about them, but a full account of just what may be seen hereabouts on a Winter's day will be deferred until another time. - G. R. C., Norwich, Conn.

You can add to our subscription list if you will only try, and you will be the gainer in the end.

Eagle and Goose.—Five or six years ago an eagle seized a goose and attempted to carry it off. After flying a short distance it was obliged to come down to the ground, the weight of the goose being too great for it. The commotion the fowls kicked up about the barn yard attracted the attention of the owner of the goose, who soon discovered the cause on seeing in a field but a short distance away the eagle and goose in a tussle. The eagle was killed before it could extricate its claws from the body of the goose. This happened eight miles west of Jacksonville. — W. H. H. King, Jacksonville, Ills.

BIRD NESTING.—I tried an invention to-day of Moses B. Griffing, of Shelter Island, for finding ground builders in fields, and think it a great success. It consists of two persons at each end of a long rope—which they drag between them over the grass, and by this means the birds are flushed from nests as the rope reaches them, and they can be marked down very closely. It also enables two collectors to cover a great deal of ground in a short time, and very few birds are missed.—Snowdon Howland, Newport, R. I.

Publications-Recent and Otherwise.

Animal Analysis.—We have before us a book of blank forms wherein the student of nature can keep in compact, and easily accessible form, such analysis of Birds, Fish and Reptiles as he might make. With this book before him the student will be sure to make his description full and concise. We extract the following from Mr. B. W. Everman's letter, which will explain the use of the work now before us:

"By to-day's mail I send you a copy of a little book of mine—Animal Analysis which has just been published.

"I have used these blanks in connection with Dr. D. S. Jordan's Manual of Vertebrates in my teachings for some time, and during the present college year Dr. Jordan has made a thorough test of their useful-

ness, in his classes in the Indiana University, and he pronounces them just the thing.

"To bring the book within bounds as to size and price, I have condensed a little more than I liked in one or two instances (in form for Fishes) but I still find it all that is really necessary. The form for Birds I think you will find very suitable."

We cannot speak too highly of the works of Mr. Everman, for he is one of the most careful students of nature that we know, and knows just what is wanted to facilitate the labors of the student. The work can be had of any bookseller. Price not given.

"NEW YORK OBSERVER" is a large eight page family newspaper, one half of which is devoted to religious matters and the other to secular matters. In this department will occasionally be found valuable articles on ornithology, and other matters pertaining thereto. Our present object is to call attention to a letter written at Selborne by the Rev. Wendell Prime, D. D., describing Selborne as he finds it to-day. Of course all our readers must know that Selborne is the home of Gilbert White whose memory is ever fresh in the minds of true lovers of nature. Some time ago a series of articles on White's Selborne appeared in the same paper by the same author. The Observer is published at 21 Park Row, N. Y., and is sent one year for Payable in advance.

Worcester Spy.—We are indebted to "J. M. W.," of this town, for a copy of the daily *Spy* of June 15, containing one of Mr. Henry D. Minot's chatty articles on "Our Common Summer Birds." All favors of this kind are fully appreciated by the Editor.

The O. and O.—Vol. VII is now in its seventh number and is certainly well worthly the patronage of every American ornithologist. We think it is the duty of every subscriber to try and induce others to subscribe. In this way the cause gains strength and the labor to the many is light.

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NORWICH, CONN., SEPTEMBER, 1882.

NO. 20.

Gleanings from Bendire's Letters

From letters received from Capt. Chas. E. Bendire, at Fort Walla Walla, W. T., from time to time, we make the following extracts, knowing from their value that they will interest our many readers:

Nov. 9, 1881, he took a specimen of the Snowy Owl (*Nyetea scandiaca*.) which, as far as he knows, is the first properly authenticated Pacific coast record. He saw a specimen on two or three occasions near Camp Harney, Oregon, but failed to get any, and at Walla Walla, in 1880, saw part of one.

Jan. 9, 1882, he mentions seeing another specimen, and the party who brought it in reported seeing several others at the time he exptured this one. The Captain thinks they may be found as common on the west coast as far south as Walla Walla as they are in the east—particularly when the difference in climate in the same latitude is taken into consideration—the climate in Winter where he is stationed being comparable with that of Virginia and North Carolina.

Nov. 19, 1881, the first Bohemian Waxwings (Ampelis garrulus) were taken, and during the last week of the same month a fine Arctic Blue Bird (Sialia arctica) was killed. Up to this date the weather had not been cold, although a little snow had fallen. Dec. 18, he secured fourteen Waxwings, and about the middle of January, 1882, a dozen more. Soon after this they left the immediate vicinity of the Fort.

Under the date of Dec. 1, 1881, he says: "It is remarkable how common the

Great-horned Owls are this season. have already skinned ten during the past two months and no two are exactly alike. With perhaps two exceptions they are, I think, referable to the Saturatus form. I believe we are to have a severe Winter and that these birds come down from the mountains: for surely they don't all breed about here, or else I would have become acquainted with them during the breeding Nearly all were excessively fat as were the other species belonging to this family that I have taken to date, viz.; the Long-eared and Kennicott's. Most of the Short-eared, however, were very poor, probably migrants from the high north, like the Snowy Owl, which was also very ill-conditioned. We have about six inches of snow, but the weather is pleasant."

Up to March 9, 1882, he had not taken any eggs of the Great-horned Owl and hardly expected to, having killed not less than sixteen. From what he has been told, he is almost inclined to believe that some of these birds occasionally breed in holes in the ground, and if true, it would account for his not finding any of their nests about the Fort heretofore.

During December, a specimen of *Scops asio Kennicotti* was taken under rather peculiar circumstances. He says: "I was going home from dinner at 5 p. m., as 1 live in another house in the garrison about one hundred and fifty yards from my quarters—in front of the houses we have a row of trees growing, some of them quite large locusts and box elders. On one of the latter and comparatively low I saw one of these Owls, but how to get him under

the circumstances was what troubled me: shooting would not do after dark, so I hunted for a long pole and finally found one with which I could reach the bird, who seemed stupid and disinelined to move, having probably just made a heavy meal on some unfortunate mouse. I got a lick at it and tumbled it down without injuring the plumage in the least. It made a magnificent skin and is altogether the best specimen of this species that I have had so far. It was very fat."

Dec. 14, 1881, he writes that he had already taken over thirty Owls during this Winter, but just then birds were hard to get, it being fearfully muddy, as the frost was all out of the ground. He had heard of some Albino Sharp-tailed Grouse about, but as yet had not seen any.

He writes Dec. 18, 1881, that about Walla Walla he is spoiling the Owl crop, having already killed and skinned thirteen B. virginianus Saturatus, besides a number of Long, Short-eared and Kennicotts, and was likely to get more. The Winter is very mild and open, farmers are busy ploughing and the air feels more like April than December. Birds are scarce just now and the number of species limited.

Jan. 8, 1882, in speaking of a collection of one hundred and seventy skins of different birds made from Oct. 1 to Dec. 31, 1881, one hundred being males and seventy females, he says the sexes predominate greatly in some species, sometimes one and then again the other.

Jan. 15, 1882, two specimens of the Cedar Bird (Ampelis vedrorum) were secured. He has never noticed any so far north in midwinter, and in fact, they are anything but common in Summer. Among the less common Winter visitors or residents he has taken several Pipilos and one Long-billed Marsh Wren, western form.

March 16, 1882, he took a nest of the Long-eared Owl (Asio americanus,) six eggs, all pretty large specimens. This is his earliest record for this species, al-

though the eggs had been set on at least a week.

March 26, 1882, a set of five fresh eggs of *Scops asio Kennicotti* was secured. He made fifteen skins of this Owl from October to March.

Florida Gallinule.

This handsome bird is abundant all along the Seneca river marshes in this State. With us it is known as "The Water Hen." They arrive early in May, and are soon observed in large numbers strutting, like roosters, about the "Wash." (a local name here given to an overflowed marsh when but the tops of the old flagg appear above the surface of the water.) This is the time of the year for the collector who wishes to procure specimens for the cabinet, as they are in perfect plumage and quite easily procured. A boat can readily be propelled through this "mash," a too near approach of which causes some of the birds to take wing, others to dive. They remain beneath the surface long enough for the boat to approach within easy shooting range. Then all the collector has to do is to "keep his eye peeled" and drop them one by one as they break water. They seem to be in full flight the instant they reappear. Often are they observed to rush out of the water, as it were, within a foot of the boat. Although rarely exhibited in our markets for sale, the gunners along the river prefer them to duck for the table. They are an exceedingly social species; more or less noisy at all times. They make the marshes lively during the breeding season, at which time they extend their jollification far into the night accompanied, at inter. vals, by the somewhat ludicrous notes of the Carolina Grebe and the rattle of the Marsh Wren. They commence to build about the last week in May, although nests are found at this date with eggs. The second week in June is the harvest time for the oologist. From notes taken June

1, 1881, while collecting in this marsh with Mr. S. F. Rathbun, of this place, I quote a description of three from six found to illustrate different modes of building. No. 1, on the ground, well raised from mud and water by the broad, middle portion of the old flag piled crosswise to the height of eighteen inches. No. 2, three feet above the water, in the shape of a platform, after the manner of the Least Bitterns. No. 3, five and one-half feet from the water by weaving the tops of the flags together so compactly as to prevent swaying in the wind.

So far as my observations of the breeding habits of the Florida Gallinule extend, I am inclined to believe they naturally prefer the ground on which to build, as there seems to be the majority of nests: and when they select a site towards the water, they build a nest high, in proportion as the depth of the water increases. Now, if this holds good as a rule, what is the cause of this variation in building?—

Frank 8. Wright, Anburn, N. Y.

Barred Owl's Nests.—We have seen four nests since our residence in Norwich, and as they all vary we will try and describe them. No. 1 was in a very large, healthy, ehestnut. The nest was in a rent or slit in the side of the tree, about thirty feet from the ground. This hole was about three feet high by not over six inches wide. The nest was level with the entrance. When we visited it in company with Mr. Brand, the old bird was on the nest, which contained two fresh eggs. There was snow at the nest's entrance as well as on the ground. Mr. Brand has taken eggs from this nest for seventeen years. No. 2 was entirely different. It was also in a hollow in the top of a chestnut tree, not over twenty feet high and easy to get at. The hollow place has evidently been burned at some time to drive out squirrels. This nest was in the stub or top of the tree. which had been blown off and was open and the nest or cavity was about the size

of half a flour barrel. The female was on the nest and left at our approach. was remarkably large and a beautiful specimen. The nest at this time contained a hen's egg, which had been placed there when the owl's egg had been removed. This nest has been taken for many years by "J. M. W." No. 3 was in a large chestnut about fifty feet high and was the nest of a Red-tail or Red-shouldered Hawk, and in nowise different from what a Hawk usually builds. This pair has been robbed for years by "J. M. W." but not in the same nest or even same piece of wood. No. 4 was in the crotch of a butternut tree, about twenty-five feet high. This cavity was half hole and half shelf. so that when the bird was on the nest she could be seen from the ground. This was not occupied the season we saw it, but "J. M. W." has taken many sets from this pair.

Piping Ployer.—If any of our readers reside in localities where this Ployer breeds plentifully, we should be glad to hear from them with notes on its breeding habits.

Field Sparrow.—The first nests of this bird will be found in old fields or by the roadsides in tufts of dry grass, sometimes in low cedars not over one or two feet from the ground. As vegetation commences, they build in blackberry bushes or other deciduous shrubs above the level of the ground.

Hummer's Nest and Eggs.—We are indebted to Fred Corey, Santa Paula, Cal., for a nest and two eggs of the Anna Humming Bird, which are on the drooping branch of an almond tree. The nest is $\frac{3}{4}$ deep by $\frac{7}{8}$ wide, built entirely of a cottony substance from flowers all of one color, and it is a perfect gem of a nest, and the eggs are prepared in a manner suggestive of steady nerve. It is a "thing of beauty," and if not a joy forever it certainly will be while it lasts. Thank you, Mr. Corey.

-AND-

OÖLOGIST.

A MONTHLY MAGAZINE DEVOTED TO

THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, EDITOR,

With the co-operation of able Ornithological Writers and Collectors.

Subscription—\$1.00 per annum. Foreign subscription \$1.25—including postage. Specimen Copies Ten Cents.

JOS. M. WADE, Norwich, Conn.

EDITORIAL.

Late Notes.—Prof. Ward, of Rochester, has purchased the collection of 748 bird skins owned by J. J. Audubon at the time of his death. Southwick & Jencks have made great efforts to replenish their stock for the coming season—both members of the firm having made long excursions for the purpose,—1,400 eggs were expected in one day. Dr. Win. Wood sent to Jno. H. Sage a Bald Eagle that had been feeding on putrid fish—an excellent present when the thermometer was trying to reach 100 and nearly succeeded.

Savannah Sparrow (Passerculus sandwichensis Savanna, Wils.) Ridge. presume it is the long name that drives this modest little Sparrow away from civilization down to the sea shore and adjacent islands where it breeds. We had never seen to recognize this bird until the present Summer, when, with a friend, we visited Plum Island, on the eastern end of L. I. While tramping over the ground a female Sparrow was flushed from the nest, which was supposed to be a Song Sparrow, but the nest was lined entirely with grass. This raised our suspicion at once. When the field glass was brought to hear on the bird, which was not a Song Sparrow, but more striped, and the stripes more prominent and the actions of the bird was different. It kept on or near the ground on very low bushes. Its song was feeble and not that of the Song Sparrow. The eggs, too. which were fresh, were different, being more rounded and the brown blotches longer. The ground color was lighter and not so much on the greenish blue order as the Song Sparrow. After identifying this bird we saw many pairs of them breeding on the Island and found another nest, which was in an almost bare pasture in a very slim tuft of grass. This bird remained on the nest, so that we could get very close to her and study her markings as much as we cared for. The first nest was also on the ground in the long, thin, coarse grass, incident to a sandy plain.

Brief Newsy Notes.

Botany and Ornithology are kindred sciences and to give the best results should be studied together. What a world of pleasure the true lover of nature derives from these two sciences.

A Text.—"A bird shot with the glass is forever alive and fixed in the mind, and many little ways and habits have been noted, which would have been entirely lost if shot in the usual manner."—G. R. C.

LATE NESTING.—We have in our possession a Song Sparrow's nest and eggs which we took at Occum, Conn., Aug. 20, 1881. The eggs were quite fresh. We should be pleased to hear from collectors with the latest records of the present season.

Botany is the background to ornithology. Where is the author that will give us a series of articles entitled "The Botany of Birds' Nests." When this is thoroughly done it will probably give us a key to positive idendity from the nest alone without destroying the bird. One of the strangest things in nature is that a nest of young birds will wing their way to the South and return to the place of their birth and build a nest of the same materials, the same shape and location their parents did before. In this lies a life work for some disciple of Gilbert White to work out.

Field Glass.

During our Winter's walk, besides the Pine Linnet, we shall find in this part of Eastern Connecticut the Slate-colored Snow Bird, Tree Sparrows, Black-capped Chicadees, occasionally Shrikes, Blue Jays, Goldfinches, Golden-crowned Kinglets, Golden-winged, Downy and Hairy Woodpeckers, Nuthatches, Brown-tree creepers, Blue Birds, Partridges, Quails, Crows and Hawks. Now and then White-throated Sparrows, Cedar Birds, Song Sparrows, Robins and Purple Finches may be seen, and the Gulls will move up and down the river as long as it remains open.

The above is a fair list to begin with. Some of those already known may be studied for descriptive points, and to familiarize one with the text book or key. The method of study is soon acquired, and it is but a step from the known to unknown birds.

There are some constant features about all birds, and these are to be sought for in watching the bird on the ground, bush or tree, and at the same time we can ascertain what it feeds upon. If the ground has been long covered with snow, and somewhat cold, every shrub or tree with berries, and every patch of dry weeds and grasses has a particular value not quite so noticeable at other times. Chicadees, and even Crows, when hard pushed, as well as Pine Linnets, will feed on bayberry wax. Quails will now leave their bushy coverts and seek the green smilax vines that overrun our walls and outlying shrubbery, and feed on their blackish berries, which are somewhat nauseating to the taste, and after a meal of this kind, quail flesh, though not poisonous, is not very palatable food, and often causes severe cases of sickness.

Of all the berry bearing trees the junipers are most valuable to many Winter birds, and a section of country without these will be a poor place for out-door study. Purple Finches, Goldfinches, Cedar Birds and Robins are often found among them when seen nowhere else. A tlock of Robins may be frequently seen eating these berries, apparently so famished as to pay but little attention to a person a dozen feet away. Sometimes during very cold weather our vine-clad verandas are visited by Blue Birds in quest of the Virginia-creeper berries, and in localities where these berries are abundant, we may look with some success for Blue Birds. On warm, sunny days, when the ground is bare, we find them around old orchards, exploring old quarters, as if anticipating the coming season; then they are on the alert for stray insects and the young grasshopper. Frequently grasshoppers may be seen in several hours from the time a patch of grass ground is denuded of snow.

There is a familiar weed that grows in every garden and on plowed ground, or by the road side, called ambrosia or ragweed, sometimes pigweed, which affords an ample supply of small seeds. The same may be said of the evening primrose, and the many varieties of Panicum, and other dried grasses, that grow upon comparatively waste places. We shall find Tree Sparrows, Goldfinches and Slate-colored Snow Birds frequenting these plants during the Winter months often when the ground is covered with a hard crust of snow. Then one may fully appreciate the value of the upright stalks with their beneficent harvest of seeds. Goldfinches will pick the seeds out of the capsule of the evening primrose, and Tree Sparrows will give the stalk a gentle shake and pick the seeds up as they fall.

All cone bearing trees furnish more or less food for birds in Winter. Cross-bills resort to hemlocks and pines, and Goldfinches and Purple Finches are sometimes found at work on the cherry or black birch.

There is a spot on the river just below Thamesville where the gulls resort in considerable numbers, and are often seen sporting in the water, looking in the distance very much like ducks. One Winter when the river was nearly closed, I took considerable pleasure in watching their movements. The flats, so-called, were covered with thick ice, and near the channel the broken ice was heaped up in ridges.

There were some twenty or thirty gulls resting on the ice, with their heads toward the north wind, while some were returning from the flight up stream, and others were going out all the time. One thing in particular struck me as quite new—every bird on its return would go to the open channel and take a bath, by plunging in the stream with more or less of flutter and flapping of wings, after which it would gracefully take its place beside the other birds on the ice for a rest.

Besides their usual diet, Crows and Jays, as well as Chicadees, are not averse now and then to a stray kernel of corn. The latter will steal corn from a corn-crib, if an entrance can be effected through a knot hole, or otherwise, returning to a particular spot outside to feed, and will handle and peck a kernel, holding it between its feet, with quite the dexterity and skill of a Blue Jay. The few Crows and Jays that remain around the farms during the Winter, resort daily to the cattle yards and fodder grounds for stray morsels. One year I always made it a point when feeding the hens to throw a little corn over the fence to a bare space of ground bordered by hemlocks and spotted alders. The Jays were always waiting in the copse for me, and came out as regularly as the hens for their morning meal.

From time to time, in our walks through the fields and by-ways, facts like the foregoing will present themselves. The novice should always make a note of them. Some will be found quite as important as the shape, color and size of an egg.—G. R. C., Norwich, Conn.

All subscriptions must commence with the current Vol., and for the full Vol. only.

Climbers and Climbing.

CLIMBING IRONS.—In "Ingersoll's Bird's Nesting" the following passage is quoted and approved:

"Never attempt to use climbing-irons on a tree that you cannot reach around; if you do, ten to one you will land on the ground below before any great height is gained." If this is taken as advice and followed, scientific climbing will soon be among the lost arts. But it must have been written hastily and most certainly from the standpoint of a novice. Now, our larger New England Hawks and Owls mostly breed in trees to large to "reach around," and yet, contra Ingersoll, elimbing-irons afford the quickest, safest, and easiest way, to reach these nests. I have several hundred eggs of Raptores from trees of good circumference secured by the use of these handy implements, and though we read as above that falls will occur "nine times out of ten," vet in the voluminous records of my eggs not a single fall is chronicled. It is fair to say, however, that many of my sets were taken by experts, who have had years of experience in squirrelling and hawking, and do admirable work. But with patience and observation there is no reason why a good degree of proficiency can not be gained by any one with the average amount Like the beginner on of application. skates your first efforts will be crude enough. You will sink your spurs too deep or will strike at random and ineffectually. When you get up about twenty feet and your nerve begins to leave you, you will hug the tree and lose confidence in the footholds. And here is the fatal mistake. You must never hug the tree. It is by no means necessary to be able to "reach around" the trunk. No sustaining power is required of the hands; the entire weight of the body goes upon each iron in succession, the hands only being used to steady the body. When this principle is fully comprehended in practice, immense chestnuts can be climbed by merely touching the tips of the fingers in the ridges of bark. The breast and knees must be kept away from the tree, the proper position being like a horizontal letter V. Watch the line-men at work upon the telephone and Western Union poles and fair examples may be often seen.

Scientific climbing, then, is the exact opposite of "shinning," and if you have been accustomed to the primitive method. it must all be unlearned here. Remember. the moment the centre of the body comes near the tree the spurs will lose their grip. The eyes and feet do the work, and not the arms as indicated in the extract used for our text. If the arms are "thrown around" the tree the climber cannot see his feet; but with the body at the proper angle he will see where to strike each foot and cannot fail to notice that one spur is all right before pulling out the other. After eareful practice will come confidence and rapid work, which it will be a pleasure to witness, and which will be satisfying to the pride of the climber. It is as pleasurable to me in all respects to see a bit of scientific climbing as to witness a fine piece of skiting or dancing. I have in mind now three trees, pronounced inaccessible by farmers, which my climber ascended without hesitation. One. a chestnut four feet in diameter and forty feet without a limb, the cradle of Great horned Owls. Another, a smooth blackoak, limbless for fifty feet, the home of Buteos. The third is a shining pine shaft in the Ledyard Cedar Swamp, barkless through lightning, on which a Fish Hawk had stuck its heap of rubbish. When I reflect on this expert's apparently natural vet scientific work, never making a false strike, ascending quickly, smoothly, almost noiselessly, till he seems like some great arboreal animal, I am tempted to head this article Climbing as a Fine Art. So it is with indignation that I read the misleading paragraphs in Ingersoll's treatise. In that essay stress is laid upon the fatigue of using irons. I have heard no complaint from climbers, and personal use in light work for three seasons has brought me no discomfort. It is certainly effortless compared with "shinning." It is well known that shinning is the most exhausting of all work, throwing great strain upon the arms and subjecting the lungs to an enormous pressure. Any iron-worker will make creepers after your model, and some little experience is needed before you find a pair of the right weight and size and with the proper dip to the spurs. All modern ones are kept padded at the ankle and points exposed to chaffing. In conclusion we may add that no one who has used climbing-irons will be without them in early Spring field work, and I find that no inducement can make a professional climber shin up a tree in the old lung-breaking way. -J. M. W., Norwich, Conn.

Lapwing (Vanellus cristatus) Pewit. GREEN PLOVER, CRESTED LAPWING.—This beantiful bird is distributed over nearly the whole of the British Isles and is also found in many parts of Europe, in Northern Asia and Africa. It is very common in China. The common name of this bird is from its cry Pee-wit. It can be heard during the night as well as the day, for the bird always seems to be on the alert. In Summer the Lapwings are met with in pairs, in Winter in large flocks. In Summer if any one approaches its breeding grounds the Pewit becomes very daring and will come to within a few yards of the egg hunter, but in Winter it is very diffi cult to get within shot of it. The eggs are laid in a slight hollow on the ground. They are four in number and are very beautiful, the ground color being cream splashed with dark brown and black. The eggs are considered a great delicacy and are eagerly sought after, and in many parts of the country during the

season persons follow the avocation of egg gatherers. The eggs are very difficult to find, but the regular gatherers will walk almost at once to the nest. Eggs of the Black-headed and other small Gulls are often sold in large numbers as Plover's eggs, but are not so delicate or so fine flavored. The early eggs are obtained from Holland, and are sold in London at high The young birds try to elude capture by lying flat on the ground, and are almost as difficult to find as the eggs. The food of the Lapwing consists of worms, insects, larvae, slugs, etc. The Lapwing has increased in numbers during the past few years in consequence of the destruction of the birds of prev.—J. T. T. R., Ryhope, Durham County, Eng.

COMMON EUROPEAN HERON (Ardea cinerea, Linn.)—Since the days of Falconry great changes have taken place, and the Heron, once protected by the most severe laws, is now persecuted by the preserver of fish. The Heron used to afford great sport to the falconer in the middle ages, as it was usually taken by a cast of female Peregrines, but it was no unusual occurrence for the Falcon to be killed by the formidable beak of the Heron. The Heron is still met with in many parts of England, but most of its breeding places are protected by land-owners, who have a liking for the bird, and but for the partial protection afforded to it, the Heron would long ago have been improved out of the British Isles. The Heron breeds in colonies, making its nest on the tops of trees, though sometimes a steep rock may be chosen as a nesting place. The nest is large, being about a yard across, and is composed of sticks and lined with soft grass. The eggs are four or five in number and are of a uniform pale green color. The food of the Heron consists of fish, frogs, water beetles, shrimps, small crabs, and the ova of fish.—J. T. T. Reed, Ryhope, England.

The Coues' Check List.

One of the most important contributions to ornithological literature recently made is the "Revised Check List of North American Birds" by Dr. Coues. Although called a second edition of the list of 1873, it is practically a new work. The old list contained only seven hundred and fifty species and sub species, and twenty-eight in the appendix, while the present list, which includes Greenland birds, enumerates eight hundred and eighty-eight species, each variety having its own number. This is a different plan from that adopted in the 1873 list, as only full species are there numbered, the sub-species being given as a, b. and c.

As showing the accuracy of the author's original list, it may be stated that only ten names have had to be removed, while one hundred and twenty have been added, thus showing the great progress made in North American Ornithology during the past nine years.

The Ornithological Dictionary in connection with the list consists of a treatise on the etymology, orthography, and orthoepy of all the scientific and many of vernacular words employed in the nomenclature of North American birds. This will be invaluable to students, as many, however familiar they may be with the names of their feathered friends on paper, have little idea of the derivation, signification and application of the words.

The book is neatly printed, nicely indexed (as are all of the Dr.'s works), and tastefully bound, and will add another laurel to the gifted author who has done so much for American ornithology during the past twenty years.

Snowr Owls.—Capt. William E. Kingsbury of the Eleventh Infantry, stationed at Camp Poplar River, Montana Territory, has two Snowy Owls that are tamed sufficiently to answer to the call of a whistle.

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No. 21.

American Long-eared Owl.

OUR FIRST OWL'S NEST.

For several seasons we worked industrionsly, sparing neither shoe leather nor horse flesh, in the hope of finding an owl's nest, and that the first one would prove that of a Great-horned Owl. But each season passed away without success, and we the more determined not to buy, but to persevere until success crowned our efforts, when in the early Spring of 1879 we received a box from Portland, Conn., containing two beautiful eggs of the Greathorned Owl, a present from W. W. Coe, who has taken the eggs so many years in succession from this pair that he now jokingly alludes to them as the "Coe The eggs in question were so far advanced in incubation that one of the young ones poked his bill through the shell as they lay on the table, and yet through Mr. Coe's patience and perseverance a set of eggs were produced fine enough to place in any cabinet. Although this set of eggs were thankfully received, it did not cure the desire to find an owl's nest, and when the season of 1880 opened we still persevered until April 4, when passing through a hemlock grove in a deserted heronry, in the town of Ellington. Ct., we discovered droppings and eastings. On looking up the tree a Long-eared Owl (Asio Americanus) left it for a short flight. Without stopping to think, we mounted the tree on a fruitless search. As soon as we got down the owl returned to the next tree, when our German companion got excited and wanted to borrow a gun; in fact,

anything to get the owl. We told him to keep cool and we would go up the tree and get it for him.

We started stealthily up the hemlock. The owl kept his eye on our friend until we got within two feet of it, when its head came around, and he looked us in the face. We moved not a muscle, but looked him straight in the eve, when hearing our friend step on a rotten stick, its head turned once more, and taking advantage of this we gently moved one branch higher, and with a quick movement of the right hand we took him from the limb. To say that both of us were surprised would hardly express it. The German sent up a shout of exultation in broken English. carefully descended with our captive, and our German friend prepared to tie up the owl in his handkerchief. We examined it carefully, and while handing it to him we purposely let it go. went off as noislessly as a butterfly and looked at us from another tree with a perfeet indifference. We left the place pleased with our experience but our friend had lost his owl and was not happy.

April 11th. We again went to the heronry and saw both owls several times. Climbed to several nests but found no eggs. April 18. Our friend went over alone and found both owls on one nest. They left it when he went near the tree. April 25. We again went to the heronry with our friend, who pointed out the tree in which he had previously found the nest containing the owls. As we struck the tree one of the owls left the nest, and when we had climbed two-thirds of the

way up the other one left, and by their violent movements we were satisfied it contained eggs, which proved to be the ease, for on reaching the nest, which was near the top of a young hemlock thirty feet from the ground, close to the main trunk, on the east side, we found five pure white eggs, which we placed in a soft felt hat, and the hat carefully between our teeth, but we fear we was just a little cruel in prolonging the suspense of the poor birds, for it was interesting to watch their rapid movements, as with cars depressed and head feathers raised, and squealing pitifully like young eats in distress, they flew as close to our head as it was prudent for them to do, snapping their bills the while. The nest was evidently built on that of a Night Heron's, and was quite shallow but firmly built of grass. There were considerable feathers, but whether they were placed there as a lining to the nest, or came from the quary consumed, we could not tell. Since the eggs were taken we have not been able to find the old birds. They evidently at once left that part of the woods. following is the measurements of the five eggs taken from this nest: 1.59×1.32 , 1.59 $\times 1.32, 1.62 \times 1.37, 1.65 \times 1.35, 1.58 \times 1.31.$ Within a stone's throw of this nest we took two others, a Cooper's Hawk and a Crow, both with full fresh sets. onry was fully occupied in 1878, but several sportsmen? went and shot the birds for "fun" while breeding, one bringing to town and placing in a row for the curious to examine sixteen birds at one time. The action of these so-called sportsmen we severely condemned at the time in our local paper, and we do not think the act has been repeated. The Herons, however, left for safer quarters, and not many beside the writer know of their whereabouts.

April 10, 1881. We visited the same locality in hopes that the Long-eared Owls had returned, but instead we found a pair of Barred Owls.

SAVANNAH SPARROW.—I think that part of the article on this species, in the September number of this magazine, is rather misleading, at least my observations in New Brunswick would suggest a different report, for while it is true that these birds seem to have a strong liking for the sea shore, the inference that they are not found elsewhere is not correct. In the vicinity of the Bay of Fundy they certainly build their nests nowhere else than in a marsh or field close by the salt water, and they are found in field or marsh along the river bank, where the water is brackish, but they are also found all along the banks of the St. John river, from Fredericton to Fort Kent, the latter place being some 250 miles or more away from salt water. They are also quite common in the fields bordering Grand Lake and Washademoak Lake into which no salt water enters.—M. Chamberlain.

Wilson's Black Cap. (Wilsonia pusilla.)
—In "New England Bird Life" it is written of this species: "In female and young birds the black cap is obscure or wanting." My friend, Fred. Daniel, shot one at Madawaska, on June 13th of this year, with a crown of as deep black as is usually found on the male, but which, upon examination, proved to be a female. One egg was about ready to be laid, and upou opening it with my knife there was disclosed the yolk and white in perfect condition. — M. Chamberlain, St. John, N. B.

Bank Swallows Drowned.—Query.—Haywards, Cal., June 21, '82.—Dear Sir: In your July No. you have a note on p. 141 as to the drowning of swallows in their burrows in May. How does this bear on the numerous accounts of their being found in the mud in winter and reviving? If they were so found was it from sliding down of the banks, and temporary suffocation? How long will they live buried in loose sand? I suggest these subjects for experimenters..—J. G. Cooper.

Thrushes.—I should be very much pleased to see an article in your journal on some of the Turdidae, viz: Turdus mustelina (Wood Thrush,) T. Pallasi (Hermit Thrush.) T. Swainsomi (Olive-backed Thrush,) and T. Fuscescens (Wilson's Thrush. All of these breed on the island of Montreal, but their eggs resemble one another so much that I have not been able to identify the species. Therefore, I should be glad to see a description of their nests and eggs, as found by yourself or correspondents.—Ernest D. Wintle, Montreal, Canada.

[Our experience with the Wilson Thrush is limited to one nest, and that was found by Capt. Thos. J. Rigney, a very reliable assistant, who reported flushing a Thrush, new to him, in a swamp near Rockville, Conn., from a tuft or bog. On examination the nest was found in the centre of the tuft and set well down into it, and the tuft was almost hidden by a skunk cabbage. The nest was a fine piece of bird architecture, the foundation being composed of leaves carefully laid in layers, evidently to keep out the moisture. Above that the nest was like a well built Wood Thrush's nest, only it was rather deeper and not quite so large. It contained four fresh eggs, which are still in our possession. They are quite round and not much larger than Blue Birds' eggs. We should be glad to hear from others in answer to the above. Probably our St. John contributors can help ns out .-- Ep.

Owls in Confinement.—William Brewster reports in Bulletin a Saw-whet Owl. laying an egg (soft shell) while in confinement. Snowdon Howland reports a Screech Owl laying a perfect egg while kept by him. Early this Spring "J. M. W." brought to us a fine specimen of the young of the Great-horned Owl. It is now doing well.

Egg Eaters. — Snowdon Howland calls our attention to a Vireo seen eating Robin's eggs. A writer in the Hartford Times states that he has seen Kingbirds eating Robin's eggs, and classes them as an enemy of that bird in consequence. Some years ago while riding on the train at full speed below Moosup, Conn., a Kingbird flew across a field and alighted on the railroad fence with a robin's egg in its mouth.

August Eggs.—Two sets of Quails, one set of Orchard Oriole, two sets of Blue Yellow-backed Warbler and several sets of American Gold Finch.—J. M. W., Noank, Conn.

European Starling (Sturnus vulgaris Linn.)—The Starling is one of the most common of European birds, being met with in most parts of the continent, and also in Algeria and Egypt, where it is a Winter visitor. It breeds early in the year and makes its nest in holes in cliffs, old buildings, trees and dove cotes. The nest is large and composed of straw and dry grass lined with feathers or wool. The eggs number from four to six and vary in size, though not in color, which is a light blue. Two broods are reared each season. The young birds are often taken and brought up by hand, and some of them learn to talk. Indeed, it is a common practice with so-ealled bird fanciers. to slit the tongues of the young Starlings for the purpose of causing them to speak well. In many parts of England and Germany "Starling boxes" are erected and are nearly always taken possession of by Starlings, though sometimes the Sparrow (Passer domesticus) appears to think that the box has been put up for the purpose of affording him a home. The food of the Starling consists of worms, snails, insects, larvæ, etc. In Autumn the Starlings collect in immense flocks, most of which depart for the South on the approach of Winter. It has been observed that where the Starlings abound the Skylark (A. arvensis) is searce, and vice versa, but the reason has not been settled to the satisfaction of ornithologists.—J. T. T. Reed, Ryhope, Durham Co., England.

Curious Nesting Places. — Wm. R. Wharton of Philadelphia reports finding a Great-crested Flycatcher's nest in the hole of a small hollow tree that was lying on the ground. It was the more remarkable as there were plenty of trees with holes in them. This nest contained five eggs, and as usual the snake skin, which is always a part of this Flycatcher's nest. It was on the island of Anglesea, twelve miles from Cape May on the coast of West Jersey.

-AND-

OÖLOGIST.

A MONTHLY MAGAZINE DEVOTED TO

THE STUDY OF BIRDS, THEIR NESTS AND EOGS.

JOS. M. WADE, EDITOR,

With the co-operation of able Ornithological Writers and Collectors.

Subscription—\$1.00 per annum, Foreign subscription \$1.25—including postage, Specimen Copies Ten Cents.

JOS. M. WADE, Norwich, Conn.

Rose Breasted Grosbear. — "Jack" is this month, July, four years old, and is in fine plumage, except the tail which has again broken off without any perceptible reason. The rose-colored breast and the black head and back are very distinct and dense in shade. He commenced his song December 23, and has continued with little intermission so far, and is as healthy to-day as any wild bird.

We gave part of the life history of this bird in confinement in No. 9, Vol. vi, to which we refer our new readers. The lady who brought "Jack" up made her usual annual visit this month, and as a matter of curiosity we arranged to be present at the meeting. The cage in which "Jack" is confined is a large one, giving him all the room required for comfort. As soon as the lady came in sight, "Jack" sprang across the cage to meet her, and when she called him by name he was wild with delight, filling the cage as it were and singing the sweetest notes imaginable all the while she was present. And this has been repeated every time the lady goes near the cage, and he recognizes her at sight, no matter what the dress might be or how it might be changed. This has been continued now for three Summers in succession and one Winter. No bird receives better care than this one, and he is continually petted and yet to no one but the lady that raised him does he ever make such a display of his affections.

RAVEN'S NEST.—Since the 23d of February, 1880, we have kept an English Raven which has not been confined but had its liberty to go where it pleased, but it has never straved far from its home. For the past year we have resided on Laurel Hill, near the centre of Norwich City. The east side of this hill is a wooded, rocky precipice, about two hundred feet deep and one or two hundred vards in extent. Nature could not have made a place more suitable to the habits of this bird, and during the present month of July we have discovered that it has built a perfect nest in every respect. It is of the same materials throughout and a perfect counterpart of a Crow's nest only it is somewhat larger. This nest is near the upper surface of the precipice on a large flat ledge of rock and covered by another similar rock. The nest cannot be seen either from above or below. We always supposed this bird to be pinioned, but we have seen it make circling flights of fifty to one hundred yards. Whether it is male or female, we know not. Jako has led quite an interesting and amusing life while in our possession, which we would tell had we the room to do so.

COWBIRD. — Charles Ed. Prior, Jewett City, Conn., reports a Sparrow's nest on the ground which contained four Sparrow's eggs and three of the Cowbird.

Dr. H. A. Atkins, Locke, Ingham Co., Mich., writes as follows:

June 1.—Cowbird laid an egg in the nest of a Wood Thrush which then contained two eggs. At 3. P. M. the Wood Thrush laid another egg, four in all. I have never found the Cowbird's egg in a nest of so large a bird before

June 2. — At 10 a. m. found nest of Golden-crowned Thrush with two eggs and three of the Cowbird, (five in all.) Broke the eggs and found them partially incubated. One of the eggs was nearly spherical. I think I have once or twice in my life found three Cowbird's eggs in the same nest.

California Winter Songsters.

Anna Humming-bird (Calypte anna) is one of the hardiest of all Hummingbirds. It is to be seen in the gardens all Winter flashing like a jewel from flower to flower. If no one has heard or seen them while singing they know not what an odd singer he is. His song, if it may be called one, is composed of three wiry like notes sounding very much as the highest notes of a violin. On any sunny day one can be seen on an Acacia tree near the house, and there he sings and feeds on the tassel-like flowers: if another one should come to feed, after him he goes, for he will not share that tree with another. In the Spring, when the males are thinking of choosing a mate, then is the time to see the peculiar way they have of trying to drive one another away from the female they may be courting. One will be resting on a limb, and the other will rise up in the air for a hundred feet or more, then will come downward with a whirring, whizzing sound at his enemy, as if to pin him fast. I have not made out if they strike in coming down, or it is only their way of trying to drive a rival off.

Plan Titmouse) Lophophanes inornatus.) A very plain little bird, always busy hunting after insects under the bark and in knot holes of the live oak. He keeps up his song at the same time, which is of short whistling notes. I have often seen them pecking away at the bark like the woodpeckers. Have not been able to find them breeding, nor have I heard of a nest being found here yet, although they are here the year round.

House Fineh. (Carpodacus frontalis.) The pesky little cherry eater is the jolliest rover of the birds. He is found anywhere and everywhere, on the roadside picking up seeds or in the orehards picking at a stray apple until he gets his fill, then up to the top of a limb singing out a merry song. It seems as though he was al-

ways bubbling over with song and could not sing enough. They make fine cage birds, and sing well after the first year. But it is strange that he does not keep his red jacket on after the first moulting season has passed. Instead of the red breast he takes a yellow one.

GREEN-BACKED GOLDFINER, (Astragalinus psaltria.) This little ball of gold and green is found in flocks of ten or more all Winter, feeding in the thistle patches. They come around the gardens and may be heard in the gum trees singing their pretty songs, very much like the canary. Two years ago this Winter I caught three after they had gone to roost in the gums for the night. I put them in with some canaries; they were quite wild for a time then got as tame as the other birds. about a month they commenced to sing; would always get on the top perch, turn their heads to the wall, then sing with all their might. But, poor little fellows, when Spring came and they began to moult, then it went hard with them. They seem to want some kind of food that will help them in moulting. I found two of them rolled up in a ball one morning dead. The other I let out to go at his will.

Gambel's White-crowned Sparrow, (Zonotrichia gambeli.) A plain, pert little Sparrow that comes around the gardens and byways, in great numbers, all through the Winter; leaves us about the first of April. Are great seed eaters, always among the weeds picking and scratching; are the first to wake us up in the early morning with their whistling song. I have heard them at midnight break out with three or four notes, as they are roosting in the eypress trees and hedges. They are the most sociable Sparrows we have and do not seem to be afraid of anything.

California Song Sparrow, (Melospizat fasciata samuelis.) This shy wee Sparrow is always found along the creeks and marshy places. They can be seen at all times busy scratching away in the dead

leaves. Every once in a while it will come out and perch on some limb and chirp its little song like a young canary. In the Spring is the time he gets his full singing powers up; then three or four can be heard singing as though they had no time to feed or see what was going on around. time they feed on the worms and insects on the trees. I never see one but that it calls to mind the experience that a friend of mine had, a watchman on one of the railroad bridges of Oakland. He saw the little sparrow come out from under the bridge every noon, when he was at his lunch, to pick up the crumbs. So he got to look for the little sparrow and would feed him. Then when Mr. Sparrow got all he wanted, he would bop up on the railing and sing him a song as if to pay him for his dinner. The gentleman got him so tame he would come out from under the bridge whenever he would whistle for him.

California Bewick's Wren, (Thryomanes bewicki spilurus.) What a bewitching little wren, never still, lively as a cricket and as full of music as a lark. They come around the house and gardens in Winter hunting after insects in the bushes. I have been called out of the house more than once by him, thinking to see some new warbler; when out only to find it little "Bewick" in some tree singing away as big as a Lark. In the Spring they will be heard in every brush heap, singing to their mates, "It is time for housekeeping."

Western Meadow Lark, (Sturnella neglecta.) Now we come to the happy fellow singing all the year round. During this time of year they are in large flocks and in early morning can be heard in the trees singing as though Spring was here: and with these warm sunny days it is not far from it, the hills are green and wild flowers are coming up over them. I have heard the Lark sing here in the Spring, while on the wing, very much like the European Lark" that I have read of as the true Sky Lark. I think the Meadow Lark

of Illinois (that was my home) were great singers on the wing. It takes Charles N. Allen to describe the song of the Western Meadow Lark in "Nuttall's Ornithological Club Bulletin" of July, 1881. I think he has got it as near nature as possible.— W. O. Emerson, Hayvards, Cal.

American Barn Owl.

FURTHER NOTES, SEE NOS. 13, 14-vol. vii.

At the time of writing the article on the Barn Owl which appeared in former numbers of the O. and O. I did not have ready access to my collection of eggs of that species, hence omitted saying anything regarding their average measurements, shape, color, etc.

I have examined and taken measurements of forty different specimens. The largest one in the lot measured 1.76×1.50 . Two measured 1.80×1.30 , these being the longest eggs in the lot. The shortest specimen measured 1.60×1.30 . The egg of greatest shorter diameter is 1.76×1.50 —the first one mentioned; the one of least shorter diameter being 1.70×1.20 ; another very slender one measures $1.72 \times$ 1.22. The average measurement of the forty specimens is 1.69×1.32 . The largest egg of the Barn Owl that I ever saw is one of a set of eight eggs now in the collection of Mr. Jos. M. Wade, and measured 1.97×1.40 ; the other seven are of the usual size. There is considerable diversity in the shape of the Barn Owls' eggs, as is partially indicated by the above figures. Some are quite slender, the one most so being 1.70×1.20 . This egg tapers almost uniformily from the centre toward each end. The specimen the ratio of whose diameters approaches most nearly to unity measures 1.62×1.36 . There seems to be a greater difference in the shape of the two ends of the Barn Owls' eggs than there is in those of the Screech, Burrowing, Long-eared, or Great-horned Owl. In a few specimens both ends are nearly rounded, while in a great majority the

small end is much more tapering than the other. Thirteen specimens in my collection are decidedly pyriform, while twenty others may be described as pyriform, but they are much more bluntly so.

The structure of the shell is very different from the eggs of other species of owls. and seems to be less compact in texture, and the surface is not of that glossy smoothness which belongs to the Burrowing and other owls; it has a more chalky whiteness, a more dead, non-lustrons white than they. There is a certain oily appearance about these that is entirely wanting in the eggs of the Barn Owl.

Capt. Bendire writes me that he thinks the eggs of the little Saw-whet Owl (Nyetale acadica, Gmel. Bp.) most resemble those of the Barn Owl in this respect, Having no eggs of that species by me at present, I am unable to make any comparisons of them.—B. W. Everman, Burlington, Indiana.

Notes from Shelter Island.

BLUE YELLOW-BACKED WARBLER.—June 12, took a set of six eggs, being the second set of that number taken by me. Once found a nest containing eight, but was satisfied it belonged to two females. One nest found contained two eggs and one of the Cowbird. It is a mystery how the Cowbird gets into the nest of the blue yellow back.

(Does this not tend to confirm the theory advanced that the Cowbird and Cuckoo of Europe lay their eggs on the ground and place them in the nest with the beak.—En.)

MOTTLED OWL.—In examining a hollow tree occupied by one of these birds, (probably a male,) I found the headless bodies of a Robin and a Kingbird, which proves that it is not so harmless quite as represented.

(These birds must have been caught in the night when off their guard.—En.)

Wood Pewee. — Number of eggs in a set. June 18, 1879, saw a nest of this bird before it was taken from the tree. It contained four eggs which is an extreme set. (Three is the usual number.—Ed.)

Eggs in a Set.

Caterral (Galeoscoptes carolineusis).— Nest and five eggs. Collector N. A. Eddy, Lake Whitney, New Haven, Conn., May 22d, 1878; incubated.

Robin. (Merula migratoria.)—Nest and five eggs. Collector D. Duncan, Vinal Haven, Me., June, 3d, 1879; fresh. Snggested by your editorial in July number.

I should like to inquire if four eggs are often taken in the Fish Hawk's nest?

In May 9th, 1879, my friend Mr. Daniel Duncan, of Vinal Haven, Me., collected for me at that place a nest containing four fresh eggs; at the same time he collected and sent me a large number of the eggs of this species, and as this set was unusually large, I made inquiries of him regarding it, whereupon he assured me that they were taken from one nest.

This season I spent a week in that locality, collecting—with Mr. D's assistance—a large number of sets of the Fish Hawk were taken, and in order if possible to furnish me with additional proof as to the set sent me in '79, for I think he was of the opinion that I was still a little doubtful regarding it. Mr. D. took me to the same nest from which he had collected four eggs, and much to the surprise of us both, it this season contained the same number.

Mr. D. also informed us that some time ago a gentleman from Mass., spent two seasons collecting in that vicinity and although he took a large number of eggs of the Fish Hawk, he took no nest containing more than three.—N. A. Eddy, Bangor, Me.

[Three is the number of eggs laid by the Fish-Hawk, two and four the exception. In a series of forty-five eggs taken by us this Spring, in every case the full set was three. We never saw but one set of four eggs and that was in the collection of Messrs. Southwick & Jencks. Knowing that M. B. Griffing, had as large experience as any one collecting these eggs, we dropped a line to him and received the following reply: "In four year's collecting Mr. W. W. W. and myself have taken ten sets of Fish Hawks containing four eggs each. Capt. B. F. Goss has two of these sets, W. E. Saunders, one, S. F. Rathbun, one, one set W. sent to England, one set I broke. I now have three on hand and W. has two. Three is the rule for a set, however, and four the exception."

Snowy Owl (Nyetea scandiaca.)—Six teen years ago I saw my first Snowy Owl alive. It was in a wild snow storm out in the open prairie. I had no gun with me at the time, but I knew the locality well, and thought I should have no trouble in finding the bird again. The next morning I took my gun and started after the bird. The snow was deep and the weather was very cold. I found the owl, but to capture him was another thing. I had never tried to kill a bird that was so sharp and wary. I spent all day in the pursuit and then did not get the bird. I saw other Snowy Owls that Winter but did not get one. The next Winter found me trying my luck again. I saw some owls, but was not successful. The more I saw of them the more I wanted to get one.

The third Winter found me after the owls again. I was bound to get one if I had to go and live with them. I began to study their habits and soon found that they were fond of being around some old decayed hay or straw stacks, away from any house. The Prairie mice were there, and they were after them for food. I found that they went to those old stacks from one to four o'clock p. m. I made up my mind if I could hide myself near one of those stacks, when the birds came I would have my bird. I found a stack where I thought a bird would come, and watched it closely after the snow came. I soon had the pleasure of seeing a bird in that neighborhood, and one afternoon saw him on the stack. I did not trouble him then, but the next day I was on hand. The day was all that I could wish for the business I had on hand. We had a strong wind and light snow the day before the bird came, from the northwest. I went to the stack, dug a hole on the southwest side and got into it. The snow storm soon made me white and eovered up the old hay that I had thrown out of the hole.

I waited about two hours before I saw my owl, but he came, little suspecting what was in store for him. I did not shoot him when he first came to the stack, as I wanted to see how he would look alive and close to me. I am a sure shot and I had no fears of his getting away when once within range of my gun. He looked very fine as he perched on the top of the stack as straight as an arrow. After I had a good look at him 1 started him and when he was about forty yards away I brought him down. I now had my prize. It had cost me a great deal of time, lots of hard work and expense, but I tell you I was well satisfied. The bird was beautiful to look at. Almost pure white.

I have since learned to shoot Snowy Owls with less trouble, and when I can find one, am almost sure to kill it. I go out into the prairie, and take with me a powerful field glass, and when I discover my bird, find out which way it is sitting. If its back is towards me I creep directly to it, keeping very low, but if it sits any other way I make a very large circle around it so as not to attract the bird's attention, because if it found out that I was after it, it would be sure to leave for another locality.

The Snowy Owl likes to be alone. It is seldom that more than one is found in the same locality. I have seen three in the same neighborhood, but not often. In regard to the color of the birds, in warm Winters the owls are darker in color, and a little larger in size. But when we get a rough, cold, stormy Winter, with deep snows, than we see the smaller and nearer pure white birds. Myidea has always been that the very white owls never came east as far as this unless they were compelled to get food. I have seen the darker owls here when there was not snow enough to cover the ground.—J. G. Smith, Iowa.

Albino House Sparrow, was captured recently in the streets of Philadelphia. It was evidently a young bird and pure white, while its nest mates were of the ordinary color. It was captured alive by a street car conductor after a short chase.

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VOL. VII.

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No. 22.

Black-Crested Flycatcher.

Among the many interesting birds which one may study in Southern California, there is none more strange or more interesting than the Phainopepla nitens. was my good fortune from July, 1879. to July, 1881, to be situated in Ventura County, California, where this bird is mode rately common, and where I had most excellent opportunities of studying it in its breeding grounds. I saw a young male in October 1879. I was collecting Sparrows and Towhees along a brush fence in the Santa Clara Valley near Santa Paula, when a strange, nervous bird alighted upon the fence at some distance in front of me. I saw at once that it was a new species to me, and my first impulse was "to shoot it on the spot." but noticing it to be feeding upon passing insects and not likely to fly far away very soon. I decided to watch its movements for a time before attempting to secure it. It would sit upon a twig for only a few moments, jerking its tail in a very nervous manner and uttering a sad. querulous note which suggested the idea that it must be a bird lost from its fellows. stopping now and then in its lamentations to dart out excitedly and seize some passing insect. After watching it some time I secured it, and to my delight I found I had a specimen of the Black-crested Flyentcher —that strange bird of which Dr. Coues writes so interestingly in his "Birds of the Colorado Valley," and in connection with which he speaks so touchingly of one of the common, yet sorrowful, occurrences of border life. It is not strange that the pathetic song of this bird of evil omen touched every heart as they gathered around the charred remains of a dear comrade, or that they went to bed early; for even the call note is full of sadness and desolation, and the song is wonderfully so.

My interest in the curious bird was now fully aroused and I determined to know more of it if possible, but frequent search in the valley failed to discover a second specimen. But in May, 1880, while taking a short drive up Santa Paula Canon, I had the good fortune to come upon a flock of some twelve or more flying about among the elder and sumac bushes, feeding upon certain insects which frequent such places. But it was Sunday and I had no gun. Must I leave them without getting a single skin? No, for just then my friend Idell Guiberson, an enthusiastic young Nimrod and lover of nature, came riding down the eanon on his return from a few days' camp ing in the mountains. And he very kindly consented to shoot a couple of the coveted birds for me after we had observed them for some time. They were in full plumage. and the pure white wing spot, which shows only when flying, contrasted pleasingly with the glossy-black body. And on near approach the yellowish-red iris and erected crest gave a somewhat angry, threatening appearance to the really timid bird.

Circumstances were such during the next few weeks as to debar me from revisiting this canon where I knew they could be found: and it was not until July, when returning from a camping-out trip to the Big Trees and that wonderful gorge,—the Yosemite Valley, that I again saw this species. We were ascending the steep grade which leads from the floor of the Valley towards Inspiration Point, when a single individual was seen perched upon a top-most twig of a tall sugar-pine, now and then giving utterance to its peculiarly sad call-note. A few days later, while in camp near Fresno Flats, twenty miles east of Madera, we again met these birds. Our camp was among the foot-hills of the Sierras, where live and white oaks are about the only trees. Among these this bird was common and was undoubtedly breeding, though I was not fortunate enough to discover any nests. We left this locality late in July. drove leisurely down out of the foot-hills. crossed the burning plains of the San Joaquin, and up over the Coast Ranges to Hollister, Gilroy, and San Jose, but though I was constantly on the watch, I saw no more of this species during the trip. So the evidence seems pretty conclusive that the Black crested Flycatcher is greatly restricted in its habitat and is found only in localities the most favorable.

Upon my return to Santa Paula in August, I found it rather common in the canon where I first saw them. They were feeding upon the berries of the chokecherry, and remained in the locality until October, when they disappeared, going farther south.

Early in the Spring of 1881, they again returned to the same canon, where they continued to be seen throughout the Summer. Their love for canons, or narrow valleys, is shown by the fact that, although the mouth of Santa Paula Canon is only half a mile from where I lived, yet I seldom saw any of the species nearer my house than the mouth of the eanon,—only one pair nesting outside the canon, as far as I could discover. During this season I made frequent excursions to various small valleys and canons of Ventura County, and found the Black-crested Flycatchers in only two places besides Santa Paula canon. One of these was the small but beautiful Ojai (O-hi) Valley, about seven miles from Santa Paula canon, and connected with it by Si-Sa (See-Saw) Canon; the other was among the moss-covered oaks on the Cacitos Pass from San Buenaventura to Santa Barbara. In each of these places it was quite common, but I was unable to find a single nest.

During April and May I kept pretty careful watch on these birds in Santa Paula Canon, determined to find their nests if possible: but up to the first of May they did not seem to have paired off, but continued to feed in a flock of twelve to sixteen. So anxious was I that I had interested several of my most observing pupils to assist me in watching them. On May 4th, Bennie and Engene Scott, two of my most energetic assistants, came running to me saving that they had found a Phainopepla's nest with three eggs in it. I told them they must be mistaken about the number of eggs, but they knew there were three, and were ready and anxious to To be Continued.

Thrushes.

I noticed in the O. and O. for October that E. D. Wintle, of Montreal, Canada, asks for description of nests and eggs of some of the *Turdidæ*. I have had very limited experience in collecting, but can report finding three nests of the Wilson Thrush and one of the Wood Thrush, with eggs, during the past Summer.

June 5th I found a nest of the Wood Thrush, containing four fresh eggs, and a nest of the Wilson Thrush with three eggs (one a Cow-bird's.) I took one egg from the Wood Thrush's nest, and from the nest of the Wilson Thrush I took the Cowbird's egg and one Thrush's egg. I succeeded in blowing the former, but broke the latter; both were well incubated. I visited the nest the next day and found that they were bound to preserve the original number, there being four eggs in it, as when I found it.

June 8th I found a nest of the Wilson Thrush containing one egg with a very thin shell. I took it, and left in its place the egg that still remained in the nest found June 5th, that nest having been deserted after I took the two eggs. I visited this new nest nearly every day for four weeks and saw the female bird on the nest every time, but found no more eggs. I saw but one bird in all this time, and at last I found the nest empty and deserted. I wondered at the patience of the bird, and took several friends to see the curiosity.

June 29th I found a nest of the Wilson Thrush containing three fresh eggs, and later found two more nests without eggs. These were all found in one piece of woods and within five minutes' walk of each other. Now, as I am a novice in collecting, having devoted very little time to it since I was a small boy, I will tell why I am certain that I have made no mistake in this matter. I have read very carefully the description of these birds in Minot's "Land and Game Birds of New England," and could easily identify the birds from the knowledge thus gained, as they would remain upon the nest until I was within a few feet of them, giving me a fine opportunity to make observations.

The nest of the Wood Thrush was in a tree within twenty feet of a river, and about eight feet from the ground. It would have been pronounced a Robin's nest by a careless observer, although the outside was composed almost wholly of dead leaves. The eggs were smaller than those of the Robin, (Minot says $1.10-1.00\times70$) and nearer spherical. The nests of the Wilson Thrush were in each instance within two or three inches of the ground, sometimes attached to a stub or brier, and occasionally in high grass near a cart-path. They were constructed of dead leaves (principally beech leaves) and grape-vine bark. The eggs were "light-blue, green-tinted." and about the size of the Bhiebird's eggs.

Birds of New York.

In response to your request, I herewith give you a brief outline of the work I am doing upon our State birds. In advance of the publication of my "History of the Birds of New York,"* which has been unavoidably delayed, I propose to issue a Preliminary Catalogue of the birds of the State, accompanied by an essay upon the Distribution of Species within our borders. This paper will be illustrated with colored maps showing both the boundaries of the Faunal Areas, and the causes that operate in determining their limitations—such, for example, as altitude, the temperature during the breeding season, etc. The completeness of this portion of the work depends largely upon the assistance rendered by resident collectors. A large number of "Local Lists," from nearly all parts of the State, have already been received; but the undersigned is desirous of obtaining still more information of this character, and takes the present opportunity to solicit lists of species known to breed from all collectors who have not already favored him with such contributions. For all material made use of due credit will, of course, be given.—C. Hart Merriam. M. D., Locust Grove, N. Y., Oct., 82.

Late Breeding of the Hermit Thrush in Northern New York.—On the 24th of August, 1879, Dr. Frederick H. Hoadley and myself found a nest of the Hermit Thrush, containing three fresh eggs, at Locust Grove, in Lewis County, New York. It was on the ground, near an old log, in an open place in the woods; and I almost stepped on it before the parent bird flew off. Two weeks later there were three young in the nest. They were very small and helpless, and evidently not more than a day or two old.—C. Hart Merriam, M. D., Locust Grove, N. Y.

[&]quot;An outline of the plan of this work was published in "Forest and Stream" for May 15, 1879 (Vol. 12, No. 15, p. 285.)

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Subscription-\$1.90 per annum. Foreign subscription \$1.25—including postage. Specimen Copies Ten Cents.

JOS. M. WADE, Boston, Mass.

STANDARD OF VALUE.—A correspondent writes: "Have American Ornithologists and Oologists any standard list of birds and eggs that they stick to?" We are sorry to say they have not. Exchanging up to this time is done decidedly at random. A short time ago we tried to find the value of Mallard Duck's eggs. One dealer asked ten cents, the next wanted forty cents, and this is about the present state of the skin and egg market. For some years we have urged the enterprising firm of Messrs. Southwick & Jencks to get out a catalogue of permanent prices that all could accept as a basis, and their present catalogue is their first attempt in this line. To us it is a handy book of reference; but they are now engaged on a catalogue in which they will attempt to give a value of all skins and eggs, whether they have them on hand or not. It will also contain instruction to collectors, etc., and will be indispensable to all.

Duty on Knowledge.—It is a disgrace in this enlightened age that our friends over the border should have to pay forty-seven cents duty on a small work like Coues' new Check List.

This is contrary to the British principles of free trade, and we have no doubt but that the Dominion Parliament will remedy this evil, as their attention is being called to it by petition. The statesman is indeed blind that votes for a tax on scientific knowledge.

Contributions for the columns of the O. and O. are always in order and thankfully received. But they must be accurate and careful statements of bonu fide observations. The day of guess-work is passed. If you find a rare nest or secure a rare bird, make positively sure of the identity before removing it. Identify without destroving life, if possible, but identify all rare finds: then describe them with the utmost care for the O. and O. Do it carefully, that your readers can also identify them from your description, and you will win recognition from American ornithologists. Study the style of the O. and O. and write as near that as possible, on a separate sheet of paper, and your communication will sooner appear. We are glad to get any news on postal cards or otherwise, and if all are not replied to, it is more for the want of time than appreciation. We have on hand much good matter mixed in with letters which remained unpublished for want of time. Write on a separate sheet.

Wanted to Know—Why the Ground Building Owls should lay twice as many eggs as those which build in trees?

Why the Orchard Oriole should use green material to build its nest?

Why harmless, industrious birds were created and cruel, rapacious ones made to prey upon them?

Why some birds will keep on laying when their eggs are removed daily from the nest?

Why some birds that feed on insects all Summer, instead of migrating, feed on berries in the Winter?

Why every one interested in O, and O, don't send us \$1, for a subscription and in duce their friends to do likewise?

More about the moulting of birds?

Just "when the swallows homeward fly?"

If all have noted the change in our address from Norwich, Conn., to Box 1829. Boston, Mass.?

Fresh Work in an Old Field.

Akin to the joy a collector feels on finding a bird unknown to science or new to his section, is the pleasure of finding the nest and eggs of a Summer resident which has hitherto escaped his notice. It may have cluded us for years, but, once found, the chances are that we shall not now have much trouble in taking it again and again. Each year the circle of our observation grows narrower, but there will always remain some local desiderata to stimulate further search.

Six years I collected before I found a Blue Yellow-backed Warbler's nest. Since then, with their range and peculiarities known, I can take more of their eggs than of the common Summer Warbler. I have not found Rails breeding here until this season when, after special search, I took three sets of nine eggs each. Now, with their somewhat restricted habitat at my command, I can probably take their eggs every year if there is any use for them. Wilson's Thrush is by no means the common bird in Summer in Southern Connecticut it is in Massachusetts and northward. June 9, I found my first nest in the swamp on Groton Long Point. The pure emeralds of the Thrush were dwarfed by the presence of two large Cow-bird's eggs. The nest was peculiar in being well raised from the ground by dry leaves stuffed into the uprights of a spoonwood clump which snugly supported the structure itself, thus corresponding in date and position with a Western type found by Dr. Coues near Pembina, Dacotah, on the Red River of the North. Three years ago I left an undetermined set of Ground-building Warbler's eggs because I could not shoot either parent. This year I took a nest and five eggs, identical with the others, in the same place, and secured the female by stealing my hat over the nest. The bird proved to be a Nashville Warbler. The situation, the sunken nest with moss-covered lip flush with the surface, the color and markings

of the eggs, and all surroundings, exactly coincide with the well-known description of this species by A. Allen, copied into "Birds of the Northwest."

Thus the season of '82 has narrowed my circle of local inquiry by three species which I had not positively found breeding here before.—J. M. W., Norwich, Conn.

RARE BOOKS.—John H. Sage, Portland, Conn., has added to his library an original copy of Bonaparte's continuation of Alexander Wilson's works, in four volumes, and now very rare; also a copy of Dr. De Kay's Birds of New York, in one large quarto volume.

Purple Finch.—A friend of mine living in this place has a vine covered piazza where the Chipping Sparrows build their nests every year. Last Summer some birds, which from my friend's description I should unhesitatingly pronounce Purple Finches, destroyed several of these Chipping-birds' nests with their entire contents. I wish to enquire if any of our scientific observers have ever known the highly-musical Purple Finch to do so disreputable an act? Mr. Editor, why is this bird (so generally known as the "Red Linnet") called by ornithologists and in ornithological works a " Purple Finch?"—Chas. Edw. Prior, Jucett City, Conn.

The Bobolink, formerly very abundant in this locality, has hardly made an appearance the present season. I have seen but two or three pairs during the entire Summer, where previously from seventy-five to one hundred pairs have nested. Their non-appearance has caused me to keep a sharp lookout for them, and in many meadows where they have been very common, not a single bird could be seen this season. What can have caused them to desert their old breeding grounds?—C. O. Tracy, Taftsville, Vt.

[We have had an article in type for two months on this subject, but the figures were given from memory and we were not sure of them, so the matterlays over until we have time. The reason is patent, however, to those living on the New Jersey marshes and the Delaware river and further South.—Ed.]

Wilson's Thrush (Turdus fuscescens,) except the Robin, the most abundant thrush of this locality. Although found plentifully in nearly all situations, its favorite hannts are low, swampy woods. The past Summer a pair of these Thrushes built their nest and reared their young within fifty yards of my home. The site which they selected for their nest was by the roadside under an elm tree, among the rank, growing male ferns. They seemed to be an unusually social pair, and came about the house searching for food, showing no signs of fear. Teams were constantly passing within eight feet of their nest. Of twelve sets which I collected this Summer, seven contained four, four three, and one two eggs each. The set containing but two eggs was taken July 26th and would undonbtedly have contained one or two more had I left the nest undisturbed. The earliest set was taken May 30th. Six sets measure as follows: Set of four collected May 30th, 92×66 , $90\times65, 88\times65, 88\times65$: set of four collected June 5th, 88×65 , 87×65 , 86×65 , 85×65 ; set of four collected June 5th. 89×68 , 88×67 , 88×66 , 92×65 ; set of three collected June 13th, 85×68 , 84×67 , 85×68 ; set of three collected June 20th, 84×70 , 87×69 , 84×69 ; set of three collected June 28th, 80×60 , 76×62 , 80×60 . The set taken June 28th was, I think, the third litter laid by that pair of birds, which will account for the small size of The eggs are oval but vary somewhat in shape: their color is bluishgreen, a little darker than those of the Bluebird, and lighter than those of the Catbird. The nest is placed on or near the ground, but usually in a low bush within a few inches of the ground, and is composed of leaves, dried grass and weeds, lined with fine roots, strips of bark, and often hair. There is but little variation in the nests which I have examined in this locality.—C. O. Tracy, Taftsville, Vt.

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Brief Newsy Notes.

Eggs IN A SET.—Harry F. Haines, Elizabeth, N. J., who has taken a good many Long-billed Marsh Wren's nests, writes that six is the largest number found in a nest, but five is found oftener than four or six. Let us hear from others.

Harmony.—Henry A. Berry of Iowa City, Iowa, reports finding the following nests in one tree. Orchard Oriole, five eggs; Kingbird, three eggs, and White-eyed Vireo, four eggs,

Cardinal Grosbeak.—Henry A. Berry, Iowa City, reports a specimen being taken in a box trap at that place last February. It is now in confinement.

Savannah Sparrow.—John H. Sage reports that he has never taken a set of these eggs at Portland. Conn., although they breed there. Chas. H. Neff was more fortunate and found a set this season.

Common Crow.—April 21, 1882, I took my largest set of seven eggs. Have taken several sets of six.

Humming Birds.—C. J. Maynard states in his Birds of Eastern North America, page 215, that the male R. T. Humming Bird is especially watchful of the nest and is very pugnacious when any person approaches it. I have taken several nests of this species and have watched the birds building their nest, and in no instance have I seen the male bird near the nest, even when it contained young, and the experience of others who have taken them here agrees with my own.

Great-horned Owls' Eggs.—The average size was about 2.10×1.80 . The set of four was somewhat smaller than any of the others, the measurements being 2.08×1.68 , 2.08×1.76 , 2.10×1.78 , 2.12×1.80 . The largest set measured 2.25×1.85 , 2.28×1.88 , 2.30×1.88 . The pores of these eggs are very large. In blowing with one of Howland's blowers it was noticed that the moisture came out of every pore and stood in drops like sweat.—E. A. S.

The Ruff (Machetes pugnas.)—The Ruff is a native of Europe. Asia and Africa and is a rare visitor to North America. It frequents bogs and marshy ground, being met with far inland. Ruffs and Reeves (the females) used to be found in large numbers in the English fens, but since the drainage and cultivation of the fens and marshes they have only been rare visitors to England. In Winter the males and females are scarcely to be distinguished from each other, but in the Spring the males assume splendid ruffs or collars and become very fine birds indeed. They vary much in plumage, it being scarcely possible to find two specimens alike. Their peculiar and striking appearance has no doubt been one of the causes of their being shot down. Ruffs and Reeves used to be in great request for the table, and were captured in large numbers by means of nets which were set among the places frequented by the Ruffs for the purpose of fighting. The captured birds were fed upon bread and milk which they devoured in the most greedy manner. and when they had laid on enough fat they were killed and sent to market. During the breeding season the males fight in the most furious manner, frequenting certain places, in which there are small mounds, for the purpose of settling their quarrels. In these fights the combatants never do each other any serious harm, the loss of a few feathers being the only result of the most serious duel. Ruffs and Reeves do not pair. The eggs are usually four in number and are laid upon the ground. They are of a greenish brown, splashed and spotted with brown and black. The females alone perform all the functions of incubation, and have all the trouble of rearing their young. The males continue to fight in the most furious manner during the whole of the breeding season. The food of Ruffs and Reeves consists of water-insects, worms, larvæ and seeds of aquatic plants.—J. T. T. R., Ryhope, Durham Co., Eng.

Climbers and Climbing.

Concerning the article on "Climbers and Climbing" in the September O. and O., I disagree with J. M. W. on some Walking up a tree steadying one's self by the tips of the fingers will do in many cases, but not in all, as I have found from experience. I will give one instance in proof. Standing in a swamp, close on the lake shore in New York, is a very large soft maple over seventy feet high and nearly dead. On the top of this tree a pair of Bald Eagles have nested for many years and I have climbed to the nest six or seven times. The bark of this tree is nearly three inches thick, figuring the rough outer part. The climbers that I used on this tree, and similar ones, had spurs two and three-fourths inches in length—they were not a whit too long and it was necessary to strike twice and often three times to knock off the ross and get a firm hold. As for converting myself into a horizontal letter V, "merely touching the tips of the fingers in the ridges of the bark," it was entirely impracticable. I do not believe in hugging a tree, but I must confess that I have done a great deal of it on this particular tree. There is another very important thing, not mentioned in the article, that collectors should look well to. It is that the spurs of their climbers are properly tempered and without flaws. Five or six years ago I was climbing an ash tree, steadying myself by the fingers. When I was up-about twenty feet the spur broke that I was resting on. I slipped five or six feet, tripped on a limb, keeled over and landed on my back in soft, black mud and water. It wasn't very pleasant. I hardly think that the climbing of telegraph men is a fair example, for they have only small, smooth, soft pine or cedar to work on. In conclusion, I'm not a disciple of Ingersoll, for I have never read his work referred to .- D. E. Stone, Hancock, Colorudo.

Climbers and Climbing.

HERMAN ILL was born in Germany, and during his younger days travelled with a eircus company, which developed his muscle, also gave him unbounded self confidence and courage "to do" that we have never seen equalled. He is a man true to himself and friends always, and it was our good fortune to have Mr. Ill in our employ from 1876 to 1881, and we often ealled on him to climb trees that otherwise would have remained unclimbed, and many a pair of hawks would have been gladdened by a nest of young, where now the shells are spread over the United States in various cabinets. At the time we made use of Mr. Ill he was working every week day in a factory, and also running a farm between times, and vet he found time to climb trees for us. Besides being very strong Mr. Ill was also very ingenious, as the following little episode will show: One evening while riding home bareback he noticed in front of him on an overhanging slender limb a nest which he saw at once could not be got at in the usual way. Quick as thought the horse was under the limb with the rider standing on his back. At this moment the horse espied a tuft of grass and moved towards it, while the rider whose hands and eves were upturned, unlike Absalom Mr. Ill measured his fulllength on the ground. The horse was soon hurried back to his position, when Mr. Ill jumped up and examined the nest which contained—noth-A good specimen of rapid bareback riding followed until the stable was reached. We once went with Mr. Ill to get some Barn Swallows' eggs when he climbed up the posts and walked over the beams like a cat. We trembled as we saw him step from beam to beam so high up, and with his hands full of nests and eggs. We begged of him to be more careful or he would certainly fall. All warnings were met with a smile, and "I guess not, I no

fall, this is noding." One evening we took Mr. Ill in the carriage and drove out a few miles west of Rockville to get some Crow Blackbirds' eggs which were mostly in immense elms so peculiar to Conn. As on all excursions of this kind we took the climbing irons and ropes along, and often a hatchet and other implements needful. The first nest located was saddled on an overhanging limb forty to fifty feet from the trunk of the tree, and at least eighty feet from the ground. We should not have asked our climber to venture after this nest, but he made preparation at once to ascend the tree, when we brought out the climbing irons and ropes, which he would not touch, and any proposition to use artificial means was met with a smile of derision, he saving "I climb any tree you find." This tree was so large he could but reach about half way round it, and for twenty to twentyfive feet had nothing but the rough bark to get hold of with his fingers. Daylight was fast waning and yet he went up the tree without a slip. As he worked his way along the overhanging limb we became alarmed for his safety and begged him to return, but we only got joking answers in reply. When he was passing the most dangerous point as a last warning we said: Ill, do be eareful: his reply was, "Yes, my vife she say so 'fore I leave home." The nest was duly reached which we insisted on his throwing down and not bringing down as he wanted to do. The eggs were brought down in safety and in much less time than it has taken us to tell it. This was probably the most difficult feat in elimbing we ever witnessed. Mr. Ill has climbed hundreds of monsters of the forest for us and never used a climbing iron, or ever received a fall. He has the nerve, strength and will to overcome all obstacles of this kind. We do not write this to commend his method, but to show what strength and nerve can accomplish in climbing.

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No. 23.

Black-crested Flycatcher.

prove it by showing me to the nest and letting me see for myself. They led me to a live oak in the pasture near the mouth of the canon, and approaching very carefully we saw the female fly from the tree. Retreating a short distance we lay down to watch under another tree, from which we could plainly see the the nest. So cautious was the bird that we grew very impatient waiting her return to the nest. She was soon joined by the male, and they would fly about from tree to tree uttering their call-note, at the same time nervously jerking the tail somewhat after the manner of the Pewee (Sujornis fuscus). Often they would approach quite close to the tree containing the nest, only to fly away to a more distant tree or bush: and when the female did finally return to the nest she did so by direct flight from one of the most distant trees,—not gradually approaching from tree to tree, as most birds do. This method of returning to the nest I have noticed several times afterward, and consider quite characteristic. Fully satisfied that the nest was one of Phainopepla nitens, I climbed to it, and, as reported by the boys, there lay three beautiful but very odd looking eggs. The nest was placed near the end of a horizontal limb about twelve feet from the ground. It was a tlat, shallow structure, nearly four inches across the top; the cavity was about two and one-half inches in diameter and less than one inch deep. In composition it was made up of small twigs and pieces of weeds, with blossoms of the live oak

mixed through it,—most abundantly in the lining; there were also two small bits of sheep's wool. The material was so loosely woven together as to form a rather fragile nest. The eggs were of an oblong oval shape, tapering only slightly; ground-color a clayey white, with many small coffee-colored spots on and around the smaller end, extending with uniformity up the sides to the middle where they became much more numerous, forming a broad band around the larger end which was much more profusely spotted than the smaller. The eggs were perfectly fresh and measured .90x.64, .92x.62, and .89x.62.

The next nests were found May 8, about a half mile up the canon, but were unfinished and were not taken until four days later, when two sets, one of three and the other of two eggs, were obtained. Other sets were gotten May 13, 17, and 19, and June 2. Of the seven nests taken by me, four were saddled on horizontal limbs from four to twenty-five feet above the ground, and near the end; one was placed upon three smaller twigs, another upon two, and the seventh was placed securely in a forked branch in the extreme summit of the tree, fully thirty feet from the ground. All of these nests were in live oaks, but Mr. Fred Corey writes me that he has, this season, found their nests in pepper-trees, blue gums, and elders.

The various nests examined by me agree very closely with the one already described. Some are better built, however, and some are even more frail than it. but all are quite shallow, and the cavity in most of them is more nearly the form of an ellipse than a circle. The wall of the nest is generally thicker at one end of the ellipse than elsewhere.

Six of the seven nests contained three eggs each, the other but two. Dr. Cooper and Capt. Bendire, the only naturalists who appear to have found the nest of this species before me, never found more than two eggs in a set. Dr. Cooper found a single nest near Fort Mojave, on April 27. Capt. Bendire, in the season of 1872, found fourteen nests in the vicinity of Tueson, Arizona, and not one contained more than two eggs, "and in three instances the nest contained but a single egg and the bird hard setting upon that." Some of the nests he found saddled upon a limb after the manner of other flycatchers, some between dead bark and the trunk of the tree, and again he found the nest fixed in between a lot of young sprouts of a mesquite tree. The nests found by him were obtained between May 16 and June 24.

Capt. Bendire, in a letter to me regarding this bird, in speaking of our entirely different observations regarding the number of eggs laid by it, gives the following explanation, and I may add that his views seem most reasonable and are undoubtedly He says: "The small number found by me is unquestionably due to the fact that in Southern Arizona they raise two and perhaps three broods, while in California, where we found them, they raise but one. This I know applies to such species as the Icteria virens longicauda and others also whose range in Summer is extensive. Here (Fort Walla Walla) this species (Long-tailed Chat) always lay four eggs, while in Arizona three is the rule, and the latter are considerably smaller. Why the latter should hold good, too. I am not so sure about, but I can readily see why this specie lays fewer eggs to the set; raising two or three broods a season fully makes up for this."

Of twenty eggs obtained by me I took measurements of fifteen, five having been

sent away before I had an opportunity of measuring them. The fifteen measure as follows: - set (1), .90x.64, .92x.62, and .89x.62; set (2), .95x.67, .92x.67, and 98x70; set (3), .90x.65, .90x.64, and .89x.65, set (4), .90x.65, .87x.65, and .90x.63; set (5), 1.03x.63, .95x.62, and .94x,65. A set of three which I sent T. G. Gentry and which he figures in Part XXV of his work on Nests and Eggs,* gives the following measurements as determined by him: .94x.69, .94x68, and .93x.68. The average of the first fifteen is found to be .923x.646; or of the eighteen. .925x.652. Brewer, and Ridgway's North American birds gives .90x.60, being smaller than any one obtained by me. It is not stated where this egg was obtained, yet I presume it is either a Fort Mojave or an Arizona egg. If so, its small size when compared with more northern specimens confirms Capt. Bendire's conjecture that, when the usual set of eggs is fewer in the Southern than in the Northern portion of any species' breeding range, the eggs are also smaller. May it not be true that the individuals of any given species which go farthest North to breed, average a trifle larger and more robust than the weaker brothers and sisters that stay at home? It seems evident that those individuals which put the greatest number of miles between their Winter home and their breeding ground, must necessarily be the stronger ones; the fatigues of travel, the changes of climate, and other modifying influences demanding and developing a hardier variety. And may not the larger size of the Northern egg permit a more prolonged embryotic development, resulting in a chick of greater size and greater strength,—one better able to cope with its less favorable environment? I suggest this merely as a possible, and whatappears to me a reasonable, solution of the question.

Regarding the singing abilities of the

^{*}Illustrations of Nests and Eggs of Birds of the United States, with Text; By Thos. G. Gentry. Philadelphia; J. A. Wagenseller, Publisher.

Black-crested Flycatcher, I must say that my observations go to confirm what Drs. Cooper and Coues have claimed for it, they being the only naturalists who ascribe to it the power of song.

During my stay at Santa Paula, my employment was such as to give me no leisure time until after four o'clock in the evening. except on Saturdays, so it was my custom, as soon as my regular day's work was ended, to saddle my broncho and gallop up the canon, where I would usually remain until night-fall, observing these and other birds. Two or three pairs of these Flyeatchers were soon detected in their nestbuilding, and I watched them for several evenings with much interest. Both male and female worked at the nest, each bringing and placing its own material. Great caution was observed to prevent discovery. the nest most generally being approached in a circuitous way. One evening, after the sun had disappeared behind the low mountains to the westward, a pair of these birds which I was watching ceased their labors, and the male, perching upon one of the highest twigs of an oak near that containing their nest, favored me with a most interesting song which he continued long after sunset, and no other birds could be heard except the peculiar, prolonged ringing note of the Ground Tit (Chamaca fasciata) from the hillside chaparral, or the petulant, scolding cries of a flock of Californian Quails as they gathered for the night's repose among the thick foliage of a neighboring live oak. The nature of the song, the time and place, together with the memory of certain sentences given by Dr. Coues when writing of this bird's song, made this seem to me full of sadness and desolation, yet it was surely very sweet and fascinating. It was a subdued, sad tone, as if the musician was full of grief which he did not wish the world to know. I could think of nothing with which to compare it, unless it be the lowest, most plain tive strains of the California Thrasher Harporhynchus redivirus). There are portions of the song which seem a little disconnected and harsh, but taken in its entirety, it certainly entitles the bird to a very high rank among the singing birds.

Though I spent several entire Saturdays among these birds. I seldom, if ever, heard their song except late in the evening, and I am of the opinion that it is very rarely that they sing at any other time. Mr. Fred Corey, who has spent some time in studying these birds during the present year, writes me that he, too, has heard them singing, and thus adds his testimony in favor of the wonderful singing abilities of Phainopepla nitens.—B. W. Everman.

What Others Think of Us.—We often get words of encouragement for our little magazine, showing that our ideas of simple English as applied to the life histories of our birds is fully appreciated. The two following extracts we take from two English letters received by the same mail:

Leeds. England. Sept. 22.—"In reference to your paper, I cannot speak too highly of it, and I shall most certainly renew my subscription when the time comes; in fact, I look forward with great eagerness when the times approaches for its becoming due."

Stone, England.—"I cannot tell you how much I enjoy your splendid little magazine. We have nothing like it in England."

We have never received but kind words, and yet our circulation is not what it should be, probably because we have not advertised it, being edited merely as a pastime. If our present subscribers will put their shoulder to the wheel and ask their friends to subscribe, we will try our best to give them a better volume next year. Volume VII will close with the year I882 by publishing an extra number.

Volume VI.—After this date the numbers of Volume VI. 1881, will be \$2.00.

-AND-

OÖLOGIST.

A MONTHLY MAGAZINE DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, EDITOR,

With the co-operation of able Ornithological Writers and Collectors.

Subscription—\$1,00 per annum. Foreign subscription \$1,25—including postage. Specimen Copies Ten Cents.

JOS. M. WADE, Boston, Mass.

Edwin Sheppard, the Artist.

In C. H. M's. able review of Gentry's Nests and Eggs in Bull. Nutt. Orn. Club, the above artist comes in for a share of criticism, and justly, from a stranger's standpoint. We have privately called the attention of Mr. Sheppard to the defects of the plates as they have progressed, and we believe that they can hardly be charged to him, certainly not the coloring. The nests are bad, but why did Gentry accept them? Why did he not take the artist out into the fields and show him the nests as built? Why did he not bring him fine specimens to draw from? We give it up, unless his whole mind was centered on that portrait which was to accompany the last number of his work, free of extra charge. We made Mr. Sheppard's acquaintance through the kindness of Mr. Robert Ridgeway. He drew for us the four Fish Hawk and Bald Eagle scenes which have appeared on the cover of the O. and O.; also the Pigmy Owl, which accompanied Dr. Wood's article, and the pair of Great-horned Owls in small circular cut which has appeared in our advertising column. We also employed him to copy three of Audubon's largest paintings, two in New York and one at Morestown, N. J. They were of course reduced for book work. He gave us perfect satisfaction. He was recommended to us by Mr. Ridgeway as the best artist he knew to paint birds in motion. We know him to be one of our best artists and a thorough gentleman. Unfortunately he has too little of what Mr. Gentry has too much.

Bull. Nutt. Orn. Club.

The October number of the Bulletin is before us, and it contains two papers which are of great interest to us and should be to all ornithologists. We allude to the review of Dr. Coues' New Check List from the standpoint of a scientist by W. B., and Gentry's Nests and Eggs of Birds of the United States by C. H. M. Poor Gentry, if he can stand the quotations made from his own book by this writer, he is proof against anything. We regret that we have not space to quote these two able reviews entire, but will give the closing paragraph of one of them.

"Enough has been said to show that instead of becoming an authority worthy of place amongst the standard works on N. A. Ornithology, Mr. Gentry's book on nests and eggs must inevitably find its level alongside such unreliable and worthless productions as Jasper's Birds of "North America" and similar trash. In other words, instead of a work of scientific value, we have a popular picture book, well adapted for the amusement of children."

This was crowded out of our November number.

On Time, 10-12-'82.—Chas. E Bellows, Ph. G., writes: "Enclosed find \$1.00 for the next volume of the O. and O. I would not be without it, and hope you will have a large increase of subscribers for your next volume. Everything is so *Original* that it is worth twice the price you ask for it." We receive lots of good words of this kind, and as it is a volunteer magazine, we ask our readers to spend a little time in trying to induce *one* more subscriber. We regret to have to say that the present volume has not paid its own cash outlay.

Brief Newsy Notes.

Common Dove.—C. A. Thompson, Melrose, Conn., shot a common dove that was feeding with the fowls, Feb. 20, 1882. About the same time a specimen was brought to our office dead. An M. D. had picked it up in a snow drift while driving his rounds. The cold was severe.

S. F. Rathbone of Auburn, N. Y., has been making a visit among his Eastern friends, and we had the pleasure of his company for a few hours in our home sanctum.

Chippie's nest on the top of a post about twenty feet from the ground. A beam rested on the edge and a couple of strips were nailed on either side and a board projected over them, making a sort of box. The nest was built like any other Chippie's and about half finished when found.—

Philo W. Smith, St. Louis, Mo.

Golden Eagle's Nest.—I went to a nest of Aquila chrysætus canadensis about April 1st. I could look into the nest and see the eggs from the bluff. It was in a large tree and could not possibly reach it. I shot the female, and a fine one it is: could not get a shot at the male. Was told that he has another mate and already at work again, (April 15th.) One of my neighbors near the nest states that they have built there for eight years. A boy found the nest and informed me of it. Will go and interview them again.—C. A. Allen, Cal.

Water Ousel and Canada Jay.—Oct. 16. I shot a Water Ousel which was sporting in an open place in the ice on a small lake near Hancock, Colorado. This is the second one I have ever seen in this country. It was very late in the season for birds, as the snow had been on the ground for over two weeks and was snowing at the time. The Canada Jays have become so tame about camp that they will come and take bread out of my hand, sometimes alighting on my arm to do so.—D. D. Stone.

Crows and Jays.—J. M. W., while ont in the woods at Norwich, Ct., saw two erows eating a nest of Jays' eggs. Dog eat dog.

Swamp Sparrow.—In the O. and O. for June, 1882, W. P. Tarrant of Saratoga, N. Y., says that the latest he has ever taken the eggs of this bird was on June 15th. July 17, 1882, in the town of Livonia, N. Y.. I took a set of four. There was also one egg of the Cow Bird in the nest. The eggs were badly incubated. One parent was taken, so the identification is positive.—C. H. Wilder, Syracuse, N. Y.

Albino Crow.—J. M. W. reports seeing an Albino Crow at Norwich, Ct., with brown or drab body and both wings white.

Cow Birds.—Edgar A. Small wrote April 5th: The Cow Birds are mating. I was watching them this morning in the yard. There were two females and one male, and the females flew after the male and seemed to make all the advances.

Correction. — In No. 22, Page 171, "Thrushes" should have been signed Chas. Edw. Prior. Jewett City, Conn.—Page 174 "Common Crows" and "Humming Birds" should have been signed M. B. Griffing, Shelter Island, N. Y. E. A. S. should be Edgar A. Small, Hagerstown, Md.

Wanted to Know why J. M. W. don't tell us about that Marsh Hawk's nest with seven well marked eggs, and other Hawks?

Why birds that take thirty days to incubate only breed once, while those incubating in three weeks breed twice, and those incubating in two weeks or less breed two to four times?

Why the Red-headed Woodpecker bred in Conn. and Long Island the past year?

What has become of Captain Bendire? by many of our readers. After reaching Fort Klamah. Captain Bendire wrote: It is the loveliest place in Summer that I have seen in twenty-seven years' travel, and it certainly must be a grand place for both the sportsman and the naturalist. From report, I had made up my mind that it must be a beautiful place, but I had no idea

of its beauties as they really are. And such a place for pinicoline birds as well as others. We will know more about them before I get away from here. Late as the season is for eggs I picked up a good many since I struck the pine timber, which I did about 150 miles east of here, and among them some very excellent things, at least two species new to me. I shall have more to say in the future, after I get properly settled down. I am satisfied that I can spend at least two years here with profit to myself and others as well. I will write up my observations made on the trip before a great while.

What has become of J. N. Clark; and—Dr. Wm. Wood? It was hard for the Dr. to give up the familiar numbers of the 1859 catalogue. 'Twas a general upsetting to many.

KEY TO N. A. BIRDS—D. Elliott Coues is hard at work on his new edition of the "Key to North American Birds." and is in hopes that it will be ready in time for the collector in early Spring.

"THE VERTEBRATES OF THE ADIRONDACK Region, North Eastern New York, by Chinton Hart Meriam, M. D., of Locust Grove. N. Y.: 106 pp. Royal Octavo, paper cover, wide margin. We have been favored with a copy of this work from which we have derived a pleasure that nothing equal to a good book on Natural Science can give. Mr. Meriam uses the English language "for all it is worth," and what he does not know about a region he has studied is hardly worthy of investigation. Like Wilson and Audubon, he writes for the million and not specially for the handful of scientists. Self is entirely forgotten and there are scientific terms enough but not one to spare. The naturalist will never tire of reading it.

But let us not forget the printer, L. S. Foster, 35 Pine St., N. Y., who in this work has turned off one of the best paper bound pamphlets we have ever seen devoted to any subject.

Eggs in a Set.

While out collecting this season found a Pewee's nest in a culvert, three feet by two, and about eight feet from the entrance. I passed the culvert a number of times, but the last time I threw a stone in, and what was my surprise to see a Pewee fly out. On entering I found the nest, which contained four fresh Pewee's eggs and two eggs of the Cow Bird. Is not this a queer place for the Cow Bird to lay? Also found a Black-throated Bunting's nest with three eggs, fresh, and four Cow Bird's eggs. Two of the Cow Bird's eggs were exactly alike in color and markings and shape, and but very little difference in size. There is not the least doubt in my mind but what two of the eggs were laid by the same bird. Found some twenty nests of the Rose-breasted Grosbeak, and in every instance but four, found the full set to be five. Also Wood Pewee's nests, with four and five eggs in a set. I also got twenty-three eggs from one pair of Bewick's Wrens this season—two sets of seven each, one set of five, and one set of four. The birds laid once more, but I was ashamed to rob them, so I let them raise their brood of six. Also found a nest of the Nashville Warbler, with five fresh eggs. The nest was on the ground at the foot of a blackberry stalk and was very large for the size of the bird, being very much larger than the Indigo's. The bottom was leaves, the nest was made of dried rotten grasses, weeds, etc., and was lined with grass and a few horse hairs. The eggs are of a pinkish tinge, with a few purplish and reddish spots scattered over the whole egg. The eggs are the smallest I have ever seen, except those of the Humming Bird, being somewhat smaller than the Gold Finches'. As my eggs are arranged for the fair, I can't take measurements. -Philo Smith, Jr., St. Louis, Mo.

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The Great American Egg-hog.

This appellation, decidedly more deserved than elegant, is, I am sorry to say, a name applicable to a great many socalled oologists. Many collectors, especially the more youthful members of the brotherhood, seem to lose sight of what, at least, should be their ultimate object the advancement of the science with the least possible injury to the welfare and happiness of the birds. Of course a good, complete series of all the rarer eggs of your region, and, in the rarest species, perhaps as many as possible would always be desirable; but to accumulate great numbers of the commoner eggs, even if well kept in sets, is entirely useless and out of place. A typical clutch or two, with whatever marked variations may come under your notice, should be sufficient. In the case of the Song Sparrow (Melospiza fasciata, which I mention on account of its abundance and the great variety of its egg-markings,) a few commonly marked sets, and some showing the extremes, would for all ordinary purposes be adequate, except in case an individual should be working up the oology of the Fringillida, or something of a similar plan.

On entering a new region—ornithologically new. I mean—it would undoubtedly be advisable to collect (I was going to say as many sets as possible) at least enough to be able to stock your own cabinet, and to present your oological friends with a few good examples of all the species you may fall in with, not to mention a donation to some public museum. Again, specimens of the same species from various localities are often very desirable, especially if there be any great difference in latitude or altitude between the places. But in the case of some of our Waders, the Herodiones for example, where vast numbers breed in a comparatively restricted area, it is very different. The eggs as a rule, present no notable variation in either

size, color, or shape, and rarely in num ber. To enter one of these "Heronries" and to deliberately gather as many eggs as can conveniently be carried away in a basket, is conduct which could hardly be surpassed by the vagabond and ruffian, and which certainly " is not becoming of a gentleman and a naturalist." Of course I understand that the plea for such behavior is always "exchange." but nine men out of ten prefer to collect their own specimens when possible, and in our commoner Eastern species, I am sorry to say the "exchange" is only too often for "filthy lucre."—Louis A. Zerega, 3 East 72d Street, New York City.

Curious Nesting Places.

A few years ago a pair of Pewees built their nest on a brace under the guards of the steam ferry boat running between Portland and Middletown, Conn., the boat making trips every ten minutes. They seemed to claim Middletown as their home, as they appeared to collect their building material on that side of the river. When the boat was on this side they would wait patiently, sitting on the piles until she came into the slip, although I have occasionally seen them fly out and meet the boat in the middle of the river. "John," the veteran collector, (he has been on this ferry thirty years.) took quite an interest in them and did what I doubt he never did before—let anything cross on this boat without collecting the fare. The birds did well and we watched them until the young left the nest.

I have a bad habit of waking up about four o'clock mornings, and in Summer to keep out of mischief I "pot" around the garden until breakfast time. One morning last Spring I noticed a Bluebird flying towards the house with her bill full of dried grass. I watched her, and you would never gness where she went with it—right into the kitchen chimney. The chimney has a flat stone on top, with openings beneath. I sat down and watched the pair work most

lively until the cook came down and started the fire, when, as the smoke poured out, the birds left. Well, thinks I, you have given that up as a bad job; but next morning they were at work as hard as ever. I waited for about ten days when the cook complained that the fire did not seem to work right. "It didn't draw," she said. I went on the roof and took off the stone and looked in. The chimney is not a straight one, but has what the masons call a "draw off" in it. On that ledge, as you might say, they had begun their nest and had finally nearly filled up the whole space in the chimney. In one corner was the nest as natural as life. I took a long wooden rake and carefully brought up and out the whole structure, and, if you will believe me, there was material enough to fill a half-bushel measure.

I notice your remarks on "Coe's Strain" in October number. Had the usual luck this Spring. Although I have had little time, I have managed to take the Greathorned and Barred Owls, a beautiful set of Sparrow Hawks, Red-headed Woodpecker, fine nest of White-bellied Nut Hatches, and a few others of less account.

Took a Chipping Sparrow's nest with one of her eggs and one Cow Bunting's in it. The Sparrow had built over the top of the nest a perfect net work of horse hair, same as the lining of the nest, and so nicely that although one could see the eggs plainly it could be turned "bottom side up" and the eggs not fall out. I never saw this before in Chipping Sparrows' nests. "I put 'em in the bag" with the rest. Have a fine specimen of a chicken which I mounted a few days ago—perfect in every way except that he has four legs. What a sweet thing he would be in an early garden. I have a Martin box on a pole some fifteen feet high. The Martins came in the Spring and stayed a few days and then for some reason best known to themselves left. A pair of Robins at once took possession and built a nest in one of the young birds, at the same time.

compartments, and when finished the old lady sat (?) set (?) sot (?) with her head out of the front window, showing that she was "at home."

But the sweetest of all this year is this: When I built an addition to my horse barn I was obliged to cut down an old cherry tree, which I did, leaving a stump some six feet high, into which I placed a ring to hitch my horses to. One morning I noticed a pair of Chickadees at work on the stump, and I gave them my closest attention. My man hitched the horses to this stump every morning as he cleaned them off, and although the horses' heads were within a foot of their hole they kept at work and finally laid their eggs and brought forth the young in good order. By the aid of a mirror I threw the light into the hole, so that I could see all that was going on. They began work April 27th, carried in nesting material May 10th, began setting May 17th, hatched May 26th, and the young flew June 12th. What I notice in this as singular is the fact that we usually find these birds breeding in the thickest of swamps and almost always in white birch stumps: and that they should come into the open and so close to the house, and more: they worked most systematically, each working and taking out chips. One would carry away the chip that he (or she) had pecked out and fly to a pear tree near by and "wipe" it off her bill, when the other would at once go in and go to work. They did it so regularly that, as one went out of the hole the other met it about half way between the pear and cherry tree.— W. W. Coe. Portland, Ct.

August Eggs.-W. F. Baker, Savanah, Ga., reports finding a fresh egg of the Mourning Dove, Aug. 31st.

SEPTEMBER Eggs. - Sandford Ritchie, White's Corner, Me., reports finding five fresh eggs of the American Goldfinch, Sept. 5th.

BLACK-BILLED CUCKOO'S Nest. with two

-AND-

OÖLOGIST.

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No. 24.

The Wood-thrushes (Hylocichla) of New Brunswick.

This Province can lay claim to but three members of this sub-genus of the Turdida, the Tawny, also called "Wilson's Thrush," and "Veery," the Olive-backed and the Hermit, for the Wood Thrush does not come so far north on the Atlantic seaboard, rarely occurring beyond Massachusetts and never reaching the northern limit of the Alleghanian faunal area, while its gray-cheeked congener, though probably passing through the country en-route to its breeding ground in the far North, has not as yet been taken within our boundaries. The Hermit and the Olive-backed are abundant throughout the Province and the Tawny is much too common to be called They usually reach the vicinity of rare. St. John during the first half of May, the Hermit arriving first, followed within a few days by the Tawny and in some two weeks by the Olive-backed. They leave here about the middle of September. These species have a general appearance when in the field so similar that none but experts can distinguish them, though, upon a close examination, the characteristics of each are found to be marked with sufficient distinctness to leave no doubt of their identification. In the field all three have the same outline from beak to tail, the same russet coloring above the same dull white breasts, more or less spotted; but lay examples of each side by side and it will prove that the Tawny was correctly named. for his russet plumes have a reddish tint in marked contrast with the greenish shade

of the Olive-backed, while the Hermit is distinguished by his tawny tail which changes to olive above the rump. But the actions of these birds are more nearly identical than either form or color, for whether seen hopping along the ground or perched upon a tree, feeding or flying, it is impossible to detect any difference in them.

Much has been written about these same manners that is not warranted by what is observed of them during their visit to this country. While here they appear neither timid nor shy, and I doubt if they ever vield to such plebian weaknesses. These birds are patricians, the premier genus of the arian aristocracy on Mr. Ridgway's roll, and true to the instincts and traditions of "the first families" are modest and retiring, and prefer the calm repose of the forest to the glare and bustle of the field and roadside. They are courageous and composed under excitement, but never quarrelsome, and are happy without being noisy. In short, they display the good breeding and refined manners of the thoroughbreds that they are. They cannot be ealled gregarious but they are not solitary —Hermit Thrush is a positive misnomer. They do not commingle as socially as do the species of some other families; indeed, they never appear as companions, yet it is not unusual to find a number of the same species frequenting one grove. I have seen as many as thirty Hermits within an area of a hundred yards square. In nidifi cation our three species exhibit a marked difference; the nests are differently constructed and placed in different situations. Their eggs also differ in shape, size and

color, and their songs differ—differ in tone. compass, volume, theme and duration.

The Tawny and the Hermit always build on the ground in this country, and though their nests and its location are quite similar yet they are not identical; both nests are loosely and roughly put together, but Veery's is the most compact and the neatest. They are usually placed in an indenture, either natural or formed by the birds, and screened by an overlanging branch, but while the Veery prefers a dry knoll in a damp spot, within a wood, the Hermit usually selects the margin of a grove or a patch of trees in a dry and partially overgrown open; neither build in a dense thicket of trees or shrubbery. Under the nests is placed a cushion or platform composed of dried grass or moss. The nest proper is built of dried grass and small twigs, unmixed with mud, and is lined with fine grass; sometimes fine fibrous roots and vines are added to the lining.

The Olive-backed builds in a tree, and, like all tree-builders, makes a substantial structure. It is usually placed in the crotch of a limb some six or eight feet from the ground, generally in a moist place. and occasionally in a really wet swamp. In a specimen of this nest before me coarse grass is the predominating material in the external parts, but in the walls twigs of spruce, bits of lichens and dried leaves are mixed with the grass and all are woven into a solid mass, very firm and strong. The lining is formed by a layer of fine grass interwoven with pieces of a black. vine-like root, all neatly laid; over these, at the bottom, is a layer of skeleton leaves. The measurements are: Depth, inside, 15 inches; width at mouth, $2\frac{3}{4}$ inches; outside the diameter is irregular, varying from 4½ to 5 inches. Mr. J. W. Banks tells me that of some fifty nests of the Olive-backed Thrush that he has examined all were lined with skeleton leaves; but Mr. Harold Gilbert found one in 1878 that was lined with moose hair. This nest was built in a garden, in the suburbs of St. John, within twenty feet of the house and but an armslength from one of the main walks. The moose hair was furnished by a tame animal kept on the grounds. The three species usually lay four eggs, but it is Mr. Banks' opinion that in extremely wet or cold seasons three more frequently complete the clutch. So eminent and excellent an authority as Dr. Coues gives four and five as the number of eggs, but we have never seen more than four in any nest obtained in this country.

The Tawny and the Hermit lay immaculate eggs of a greenish-blue color, but the eggs of the Hermit are much the paler and are also the longer and more pear-shaped. The eggs of the Olive-backed are of a bright greenish-blue ground color, not so dark as the Veery's, and irregularly marked with purplish-brown spots. In some examples these spots are so large and numerous they almost entirely hide the ground color. The average measurements of the eggs are: Tawny, .86×.67; Olive-backed, $.92 \times .69$; Hermit, $.89 \times .64$. Few of our country-people are acquainted with the appearance of these birds but are familiar with their songs which they attribute to one species called by them the "Swamp Robin:" for as in their appearance so in their song, there is to some degree a superficial resemblance; all have peculiar metallie voices and sing somewhat similar melodies. Their songs resemble each other much more than they resemble that of any other species. The Tawny ranks first in classification but the Hermit takes precedence as a vocalist. His song is the grandest: it is the finest musical composition and displays the most artistic execution, as well as the greatest compass and power of voice.

One is surprised to find so little about the songs of these Thrushes in the writings of the older ornithologists. Wilson says the Tawny has "no song" and calls the Hermit "a silent bird." Audubon never heard the song of the Hermit, and Nuttall does it but scanty justice. To my ear it is by far the finest song we hear in these Northern woods, and fully deserves the seemingly exaggerated title of "glorious," given it by some modern writers. The Winter Wren is his nearest rival and he startles the listener into admiration by the perfect torrent of sweet harmonies, of brilliant passages and marvellously executed trills, he hurls upon the stillness of the forest solitude in which he delights to roam; but, beautiful and joyous as his song is, in comparison with the song of the Hermit Thrush it sounds mechanical, and more like an air from a music box. The music of the Hermit never startles you; it is in such perfect harmony with the surroundings it is often passed by unnoticed, but it steals upon the sense of an appreciative listener like the quiet beauty of the sunset. Very few persons have heard him at his best. To accomplish this you must steal up close to his forest sanctuary when the day is done, and listen to the vesper hymn that flows so gently out upon the hushed air of the gathering twilight. You must be very close to the singer or you will lose the sweetest and most tender and pathetic passages, so low are they rendered—in the merest whispers. I cannot, however, agree with Mr. Burroughs that he is more of an evening than a morning songster, for I have often observed that the birds in any given locality will sing more frequently and for a longer period in the morning than in the evening. I prefer to hear him in the evening, for there is a difference; the song in the morning is more sprightly-a musician would say "has greater brilliancy of expression" and lacks the extreme tenderness of the evening song, yet both have much the same notes and the same "hymn-like serenity." The birds frequently render their matinal hymns in concert and the dwellers in a grove will burst out together in one full chorus, forming a grander Te Deum-more thrilling-than is voiced by surpliced choir within cathedral walls. On one occasion an Indian hunter after listening to one of these choruses for a time said to me, "That makes me feel queer." It was no slight influence moved this red-skinned stoic of the forest to such a speech. The song of the Olive-backed ranks second in composition but he has the sweetest and most mellow voice of the three. The Veery displays the least musical ability yet his simple strain is exceedingly pleasant to the ear and his beautiful voice exhibits most strongly that peculiar resonant metallictone which is characteristic of the genus.

I have not attempted to represent these songs by words or notes, for all such experiments as I have seen, appear to me to be failures. Neither the words of Dr. Brewer or Mr. Samuels, nor the syllables used by Mr. Ridgway or Mr. Gentry convey to my mind the idea of the songs of the birds that is impressed on mymemory: and after a patient rehearsal of the notes of Mr. Horsford's score on piano, violin and flute I fail to recognize the melodies he has attempted to write. Perhaps Mr. Horsford will say that, as I do not live in "a white pine country," I can know nothing about these Thrushes, and I certainly do not if his article in Forest and Stream* is to be taken as evidence of what is correct. Besides their songs the three species have eall notes and two or three minor notes, used chiefly when a mated pair are together. The alarm note of the Olive-backed, which Mr. Minot thinks sounds like "whit," and which he calls "the ordinary note" of the bird, is seldom used except the bird has a nest near the intruder. I think the sound would be better represented by "kwnt" very abruptly and quickly uttered, with a peculiar emphatic intonation. But the songs and notes of all birds must be heard to be understood and appreciated.—M. Chamberlain, St. John, N. B.

^{*}Prof. Horsford's writings on our Thrushes first appeared in **Familiar Science" published by us. We also engraved the music. Other of our articles appeared in Forest and Stream as original.

-AND-

OÖLOGIST.

A MONTHLY MAGAZINE DEVOTED TO THE STUDY OF BIRDS, THEIR NESTS AND EGGS.

JOS. M. WADE, EDITOR,

With the co-operation of able Ornithological Writers and Collectors,

Subscription—\$1.00 per annum. Foreign subscription \$1.25—including postage. Specimen Copies Ten Cents.

JOS. M. WADE, Boston, Mass.

Rare Books.—We have just sold to Dr. G. W. Russell, 490 Main street, Hartford. Conn., and now travelling in Europe a copy of Audubon's Quadrupeds, Royal Folio, 150 plates, bound in three volumes, half Red Morocco, a perfect copy. Price \$200. The Dr. also owns the Robert Havell copy of Audubon's Birds, double Elephant Folio. This copy eost \$1150, and the table and roller drawers in which to keep it. \$100 more. Some years ago we presented the Dr. a letter from Robert Havell to one of Audubon's sons stating that every plate of his copy was carefully selected as he was coloring the work, making it one of the best, if not the best copy known. The Doctor's library also contains Audubon's seven volume octavo edition, also the three volume edition of Quadrupeds, Fanna Borcali Americana, and a large quantity of other rare ornithological works, making it one of the rarest Ornithological libraries in the State. May the Dr. live long to enjoy his rare books and through them render enjoyment to his friends. Some time ago we sold a copy of Fanna Boreali Americana, Vol. 2, Birds, in the original leather binding, to Rev. C. M. Jones, Eastford, Conn. This work is now very scaree.

Orioles are very common in Kent Co., and not rare in London, Ontario, he knows nothing of them further east.

Close of Volume VII.

With this number Vol. VII closes. We started it with hopes of a larger circulation which has not been realized. We receive application for large numbers of sample copies, but few subs. in proportion. We presume they weigh it in the scales against such trash as the N. Y. Weekly and find it light. It is judged by its size and not by its contents. We hope our readers will renew promptly, and when possible, solicit some one to join them. Every subscription except four expires with this number, and one of those is paid up to 1886. It will be noticed that we have gained two extra numbers so as to close with the year. Our readers must understand that where full addresses are given we virtually give away our advertising space, except to dealers, so that from that source there is no income.

Brief Newsy Notes.

Wood Pewees seem to breed only in Locust trees. Orchard Orioles in Apple trees in Orchards. Goldfinches have a preference for Silver Poplars.

Baltimore Orioles—Usually in Elms, but one in an Apple tree in an orehard and one in a Hickory tree in the deep woods.

Crow Blackbirds mostly in orehards or isolated Apple trees and Cedars.

Carolina Doves anywhere from the ground to the top of a stump or fence post. A good many breed in Cedars, but mostly in Orchards near houses. Nests generally not more than twenty-five feet from the ground.

Song Sparrows seem for preference to build in Honeysuckle vines against the sides of houses in town.—E. A. Small, Hagarstown, Md.

Wanted to Know why the eggs of Sandpipers and Plovers are so much larger in proportion to the size of the bird than the eggs of other birds?

Why the Bull. Nutt. Orn Club is advertised as "the only periodical publication in

America devoted to general ornithology?"

TUFTED TITMOUSE.—Had the good fortune to capture a fine specimen of the Tufted Titmouse, on the 6th inst. What I know of this rare bird is as follows:

1871, April 30.—Saw two: was without my gun, it being on Sunday; was within about thirty feet of them. 1881, April 12.
—Shot one; no others seen. 1882, April 6.—Shot one; no others seen.—H. A. Atkins, M. D., Locke, Mich.

Cuckoos.—One very singular find of mine this season was a nest containing a set each of Black-billed and Yellowbilled Cuckoos. It was in a young oak sapling in a crotch about nine feet up. There were two eggs of each variety, very distinct in size and color—no one seeing them would question the distinction. Incubation had commenced but was about equally advanced, showing they were laid at about the same time. The old Yellowbill had "nine points of law" in her favor -"possession." It was late in the season for that species to be breeding, the 24th of July. Mentioning this circumstance to J. N. Stannis, he remarked that he was glad I found it, for he once found one similarly situated but had never been able to convince anybody of the fact. It was not in such situations as I have usually found the Yellow-bills, but the bird was very tame and demonstrative and I could not be mistaken in the species.

Great White Egret (Herodias alba egretta.—One of my neighbors procured specimen August 11th, nearly two miles from the seashore. It was following up a mill stream and he shot it from his door as it flew past. It was pure white, in young plumage, a long-legged, long-necked, stilty looking bird. The same person shot one of these birds in 1878, the 2d of August. These are the only birds of the species that I ever saw.—J. N. Clark, Old Saybrook, Ct.

Rep-shouldered Hawk.—I captured a beautiful specimen of a Red-shouldered

Hawk, a male, in mature plumage, a few days ago. It seemed to have adopted the range of the creek passing near by for its Winter hunting ground as early as October, and he included our immediate vicinity in his daily excursions. Perhaps I was unjust by him, but I imputed the cause of my diminishing poultry to him, but with no positive proof. However that might be, I had an earnest desire for his skin, and kept my gun specially prepared for him, and have returned from many a fruitless effort only to wish I could get a little nearer. There was a solitary tree on the bank where he rested almost every day as he took his excursion up the creek, and a thought struck me, if I only had a rabbit—well, I got one, and the day after Thanksgiving I fied it to a spring and set a steel trap on a large branch under itbut I saw the hawk rest no more on that tree. He seemed to entertain suspicions that something was wrong till the 17th of January, looking that way, I had the satisfaction of seeing my coveted bird standing there with a foot securely fastened in the trap. The Winter has been pretty severe on the birds and they have almost entirely deserted us. but I had the satisfaction of securing one thing new to my collection a few days ago—a Purple Sandpiper captured on the jetty off the mouth of the river.-J. N. Clark, Old Saybrook, Conn.

Olive-sided Flycatcher.

A bird by no means common in this locality, arriving from the 10th to 20th of May. Having observed a pair of them frequenting a large and isolated orehard. I was confident of finding their nest; but eareful and repeated search failed to reveal it. Leaving the orchard June 16th, 1882, and entering a piece of young growth among which were a few large hemlock trees, I suddenly noticed one of them (probably the male) flying toward me. It was very much annoyed by my presence

and was constantly flying toward me and snapping its bill. Here was new light. As the bird would frequently fly to the top of a particular hemlock and then dart back toward me, I began to feel sure of finding its nest. I retreated a short distance and watched the movements of my new acquaintance, who perched upon the top of the tree, seemingly to act as guard. A striped squirrel ventured part way up the tree, but when spied by the bird was instantly driven down. After earefully searching the tree for two hours, I noticed something near the top which I thought must be the long-sought nest. striking the tree with my axe I had the satisfaction of seeing a bird fly away and immediately return. A hard climb of sixty-five feet brought me to the nest. was saddled upon a horizontal limb, six feet from the trunk, and was closely concealed by the small boughs. It was composed of moss, (Usnea barbata,) and dry hemlock twigs. These were interwoven into a loose, clumsy nest, the only lining being about a dozen pieces of fine, dry grass. I think this is the poorest piece of bird architecture that I have ever found. but the three fresh eggs which the nest contained were indeed beauties, their color being a delicate creamy-white, marked with large blotches and spots of brownishred, lavender and lilac, and fine spatters of lilac. On one are a few black dots. Their dimensions are, 95×64 , 92×64 , 91×65 , respectively. Both birds resented my presence with great courage, and while I was in the tree were constantly darting at me in a decidedly vicious manner, snapping their bills and uttering their loud notes with such vigor that a general commotion was raised among all the feathered tribe who were within hearing.

A few weeks after finding this nest I found another, within a few rods of the first. This was also in a large hemlock tree. As it contained young, I allowed it to remain. It doubtless belonged to the

same pair of birds that I robbed earlier in the season. In his Birds of New England, Samuels says of this bird: "It has been found breeding in Vermont; and Dr. Thompson, in his work on the birds of that State, gives a description of the nest and eggs. Three nests have been found in Massachusetts within two years, two in West Roxbury and one in Dorchester. These were all built in forked twigs of apple trees in old, neglected orchards, facing to the southward, and were constructed of the same material that the Kingbird uses in its nest. In fact, they were almost exactly like the Kingbird's nest, but were a little smaller."

Samuels' description and my own observation had led me to believe that it selected an apple tree in which to build its nest, but my experience of the past Summer goes to convince me that it breeds more commonly than is usually supposed.—C. O. Tracy, Taftsville, Vt.

The Cærulean Warbler.

I discharge both loads from my doublebarrel and bring down a pair of Warblers, male and female, from the top of a tall maple. They are fine specimens of the Dendræca cærulea. Have they just dropped down from the skies, and brought the pure azure with them? Except the dusky wings and tail, dark wing-crests and centers of many of the feathers, and white underparts, the epithet Carulean, sky-blue, is certainly applicable to the male, particularly to his head, back, and collar just above the breast. Excepting her lighter markings, less dusky wings and tail, missing collar, and greenish tint over the head and back, the female is the same as the male. This species has the streaks along the sides, and the white marks in the outer tail feathers, in common with the rest of the Dendræca.

The Cærulean Warbler, apparently belonging to the Mississippi valley, and scarcely a casual visitor on the Atlantic

coast, like certain other species of its locality, finds its way around the Alleghany Mountains for a short distance, and is very common throughout the Summer in western New York. Indeed it is not uncommon as a Summer resident in the central parts of the State. I have had every opportunity of observing its habits; and, as no writer has given it a full record, I bear it a special accountability.

It is a bird of the woods, everywhere associated with the beautiful tall forests of the more northern counties of Western New York, sometimes found in the open woods of pasture-lands, and quite partial to hardwood trees. In its flitting motions in search of insect-prey, and in the jerking curves of its more prolonged flight, as also in structure, it is a genuine Wood Warbler, and keeps, for the most part, to what Thorean calls "the upper story" of its sylvan domain. Its song, which is frequent, and may be heard for some distance, may be imitated by the syllables rheet, rheet, rheet, rheet, ridi, idi, e-e-e-e-e-e; beginning with several soft, warbling notes, and ending in a rather prolonged but quite musical squeak. The latter and more rapid part of the strain, which is given in the upward slide, approaches an insect quality of tone which is more or less peculiar to all blue Warblers. This song is so common here as to be a universal characteristic of our tall forests.

The bird is shy when started from the nest, and has the sharp chipping alarm note common to the family. The nest is saddled on a horizontal limb of considerable size, some distance from the tree, and some forty or fifty feet from the ground. Small, and very neatly and compactly built, somewhat after the style of the Redstart, it consists outwardly of fine dried grasses, bits of wasp's nests and gray lichen, and more especially of old and weathered woody fibres, making it look quite gray and waspy; while the lining is fine dried grasses, or shreds of the wild grape-

vine, thus giving the inside a rich brown appearance in contrast with the gray exterior.

The eggs, 4 or 5, some .60×47, are grayish or greenish white, pretty well spotted, or specked, or even blotched, especially about the large end, with brown and deep lilac. They do not possess that delicate appearance common to the oological gems of most of the Warblers.—J. II. Langille, Buffalo, N. Y.

Notes from Colorado.

My time to devote to birds is very limited, but I send you a few notes taken about camp, at an elevation of about 11,400 feet. Canada Jays are plentiful and make themselves as much at home as tame Pigeons, coming at meal time for bits of food that I throw to them, sometimes alighting within two or three feet of me. At other times they busy themselves hopping about the trees, either singly or in small flocks of four or five, pecking off insects and crooning to themselves like an old woman at her spinning wheel. They have as great a variety of notes as the Mocking Bird. often uttering shrill screams that would easily be mistaken for those of a Hawk.

Stellar's Jay, Arctic Blue Bird, and Black-billed Magpies are abundant up to an elevation of 9.500 feet. Have never seen but one pair of Louisiana Tanagers higher than 10.000 feet. They are quite common from 9.500 feet down to the Plains.

Andubon's Warblers are quite plenty 500 or 600 feet lower down, and Hummers are abundant and are occasionally seen about camp, but as all of my shooting irons are forty-five calibre I cannot take any specimens to identify them. Red-shafted Flicker and Robins are common.

July 17 I saw for the first and only time one male and two female Pine Grosbeaks. Purple Finches are occasionally seen.

Yellow-crowned Kinglets and Brown Creepers are quite plentiful, and Titmice —"The woods are full of 'em." Whitecrowned Sparrows are plentiful in the dense willow thickets that cover the flat, marshy benches of mountains and in willows along the creek bottom at the foot of the mountain. July 24 I found, accidentally, one of their nests with four young birds about a week old. The nest was placed upon some horizontal willow twigs on a steep bank of the creek. It was about thirty inches from the ground, composed outwardly of coarse, dried grasses and weed stalks lined with fine soft grass and a small quantity of cow's hair. Outside heighth 3 inches, breadth 64 inches, inside depth 14 inches, width 3 inches.

Oregon? Snow birds are abundant throughout the mountains. Of this bird I have taken five sets of eggs. Four of the nests were in small cavities, under overhanging clods of earth, in the bank of the wagon-road. The fifth was on the ground by the side of a large rock on a hill side. The nests are large for the size of the bird. The outer part is of coarse grass and weed stalks, and small roots loosely placed together, with a thick lining of soft grass. Outside height 23 inches, breadth 6 inches, inside depth 1½ inches, width 3½ inches. The first three sets taken June 20 contained four fresh eggs.

June 26.—The fourth set with three fresh eggs and the fifth one with four eggs containing large embryos. The average measurement of the whole five set is 84×62 . Ground color very pale bluish green, with spots and dashes of dark lilac blended together about the larger end, forming quite a distinct circle, with a few lighter markings on the rest of the surface. While I was taking the eggs the parent birds were hopping about a short distance away, uttering loud "chips" but offering no resistance.

Mountain Mocking Birds are quite plentiful in the open places, but are seldom seen in the timber.

June 20.—Took two sets of four eggs. *II. Salvin in*—one fresh and the other containing large | don, England.

embryos. The nests are a large bulky affair, and were placed under a overhanging rock in a deep railroad cut. Composed outwardly of dead twigs loosely laid together and lined with fine dry grass and weeds. Dimensions outside: height $4\frac{1}{2}$ inches, width 9 inches, inside depth 2 inches, breadth 4 inches.

June 25.—Found a nest under a rock in an old prospect hole far above timber line containing four fresh eggs. The parent bird when on the nest will allow itself to be nearly touched by the hand when it will slip off the nest and out of sight. The eggs average .68×.95. Ground color impure white, with splashes of umber and a few small spots of pale lilac blended together, covering the whole of the larger end, the remaining surface being covered by small and separate markings of the same colors in a little lighter shade.—D. D. Stone, Hancock, Colorado.

CORMORANTS BREEDING IN CAPTIVITY .--Many readers of Land and Water, and especially those of the ornithological type, will be interested to hear something about my Cormorants, which bred for the first time in captivity in the Zoological Gardens, Regent's Park, last Spring, whilst being there on "deposit." I think it is pretty well known that out of three eggs two were hatched and reared. Of these, one was presented to the Zoological Gardens, whilst the other bird I removed and trained. Probably the "Water Nymph," for such is the name I have given this young one, has derived great instruction from old "Kao-wang," its mother, whose experience over nearly twenty years must be great, for she has turned out a most wonderful fisher. She has been fishing in Yorkshire with the old one, and their score in three weeks is two hundred and twenty-six fish. All kinds of fish were taken, but they consisted chiefly of trout.—F. H. Salvin in Land and Water, Lon-







