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No. 1.

A Trip to Seven-Mile Beach, New Jersey.

The birds are being rapidly driven from the chain of island beaches which extend along the Atlantic coast of lower New Jersey. These islands have one by one been converted into pleasure grounds for the summer visitor, and all the beauties of wildest Nature, here so prodigally bestowed, have been completely obliterated to make way for the demands of a latter day civilization. Noble cedars, red-berried holly, grand pines, most of which have endured the gales of a century, are forced to give way before the woodman's relentless axe. The towering sand hills are lowered and used to fill in the marsh and meadow lands on the south side of the beaches, and what was once considered matchless ground for collecting is now the site of permanent and summer cities.

To the one island which has resisted the advance of society, and which with the exception of a new settlement on the northern end, is still in a primitive state of wild disorder, I made two visits this past season to become familiar with the habits and manners of the birds, and make some needed additions in series of eggs for my collection.

The American Osprey (*Pandion haliaetus carolinensis*) was the noblest of the birds. Of these species there was probably breeding at the time of my first visit about fifty pairs. Their nests are the most conspicuous of all objects, some of them having evidently been tenanted for many years, and with their annual additions of material are enormous, and the contents difficult of access. The nest trees are generally dead, though not invariably, and I am satisfied that the ordure and garbage which the birds drop all over and around the trees have nothing whatever to do with killing them. One pair of birds who were robbed on my first visit, and nest torn down, immediately went to building on a neighboring tree

which had been dead for years. Besides this, the place abounds in dead trees, and being either pine or cedar become well seasoned with saline matter and salt air, so that the dead trees are as strong as the living ones, and I think the Osprey selects them in preference to the others. A fisherman who lives on this place assured me that one particular living tree from which I took a Landsome clutch of three eggs on May 23, had been occupied by the same pair of birds for at least ten years to his certain knowledge, and the tree is as green and prosperous now as ever.

Old birds build higher in the trees than young ones, and often select larger and more difficult trees to climb. The largest nests, I reasoned, belong to the older birds, who have added to their fagot homes for years, and such nests invariably contained sets of three heavily marked eggs. The small and new nests were always occupied by a youthful pair, and were built either on low trees or on some portion of uprooted trunks, of which there are a great many.

When I saw one of these low, small nests, I thought to myself, here is a lightly marked set of two, and such proved to be the case always. "Lookout nest," the most magnificent eyrie of the entire colony was built on the top of a mammoth pine exactly ninety feet from the ground, on a piece of higher land than the surrounding meadows and beach, and I was well repaid for a bruising and tiresome climb by a peerless set of four fresh eggs of the brightest red hue, as well as the commanding view of ocean and woodland for miles around. Nests so situated are rare, and the oologist will find most nests easy to reach, though sets of four sometimes come high, and of a large and striking series of eggs taken this was the only set of that number.

An inexperienced set of Ospreys had built their nest upon an overturned tree upon a portion of the meadow land very difficult of ac-

cess by reason of the creeks which encircled the little plat on all sides. I knew full well the nest contained a lightly marked set, because of its lowly nature and undersize, and so after having undressed and crossed the water I was not surprised to find a set of two, one of which is pure white unmarked, in shape oblong oval; the other richly marked about the greater end with umber, the major portion of this specimen being also unmarked, and well rounded in shape.

These birds will not always lay a second clutch after having been robbed of the first. This was a point to which I paid especial attention, making note and sketches of trees containing nests robbed in May, and on being revisited late in June it was determined that just thirteen per cent. of the birds had laid second sets, and they were in every case the younger birds. Some of the eggs of the second layings were wonderfully colored. One set of undersized eggs were almost devoid of any marking, presenting a washed out appearance. Another set contained one egg in which lilac was the predominating color. An egg in another set bears a close resemblance to an example of Red-tailed Hawk (*Buteo borealis*) being well rounded and white, the ground color sparingly splashed with reddish-brown blotches. The majority of the previously robbed nests had, at the time of my second visit, been filled up with rubbish, dung, sods, etc., so that the top of the nests were heaped up just as they would be in the Fall before leaving for the south, thus conclusively proving that they did not intend raising a brood for this season.

I shall not soon forget my first introduction to the herony on this island. It was on the first bright day we had after three days of heavy northeast storm, and the fourth day of my visit, that I started out from the miserable hut in which I had found shelter for the night, with my men, to explore a portion of the tract hitherto neglected by us.

Immediately in the lee of the sand-hill is a stagnant pool of dank, bad-smelling water, maybe one half mile long by from one hundred to five hundred feet in width. From out this lake grows a tall, nodding green plant, and on its bank the holly and cedar grow in all their native luxuriance; the former trees are used exclusively by the Green Heron (*Butorides virescens*) for their nests. Everything was covered with moisture and the early morning sun shining over the sand-hill tops reflected a million gems from every moss-decked tree. Taken with other surroundings I came to believe a

herony not such a dismal, filthy place after all.

Probably two hundred and fifty pairs of this species were breeding on this ground. They are a shy bird, and fly away with a discordant squawk on the approach of man. Nests are generally twenty feet or upwards from the ground, and at the time of my visit were egg laden. I spent a pleasant morning in climbing to the nests, which are frail looking platforms placed without apparent care on the horizontal limbs, and so sparingly made of sticks that it is an easy matter to determine from below whether they contained eggs.

Five eggs was the largest number found in any set, and four was as often encountered. When fresh, with the morning sun shining through the leaves, it is a rare sight from a treetop to look around and below at the great number of eggs on every tree. I took a good assortment of clean fresh sets of four and five eggs, and there is considerable difference both in size and intensity of coloring.

The Snowy Herons (*Garzetta candidissima*) have been almost exterminated, though formerly very abundant, one ornithologist having recently shot seventy-three birds in one day. I found one Snowy at home sitting on four eggs and one chick. The Black-crowned Night Herons (*Nycticorax grisea novera*) of which there are about a dozen pairs, had their nests a little further down the swamp, but as their place was very foul and the only nest climbed to had well feathered young I did not pursue my investigations further.

The Great Blue Herons (*Ardea herodias*) were about, but knowing it to be too late for their eggs I did not hunt up their quarters.

The birds which possessed the greatest interest for me were the Fish Crows (*Corvus ossifragus*), they were the most abundant of all species occupying the island, and scarcely a coniferous tree but has one of their nests. They build alike on the coast and meadow trees and their hoarse *caw, caw* is continuous while one is in their territory. Though my visit was at too late a day to secure many of their eggs, I managed to take an elongated set of three from a deserted nest, and one incubated set of four which I saved with care.

The trees upon which they build are readily climbed, the nests are generally near the tops and seem to be better made structures than those of our American Crow (*Corvus frugitorus*), being warmly lined with the fur of the wild cattle which until lately were very abundant on this place. The eggs are exact miniatures of

the American Crow's, and could be easily identified by their smaller size alone.

The birds become very noisy when their nests are examined, and it is not an uncommon thing for the robber to find the entire community flying boisterously overhead. As the coniferous trees are numerous, and the fish supply inexhaustible, it is not probable that this island will be deserted by them for a long time, even in the face of improvement. The old resident fisherman told me that some of these birds remained all winter, seeking shelter at night in the giant evergreens just in the wake of the sand dunes, where he has seen as many as fifty birds huddled together on one tree in the winter twilight. I found four young in most nests examined May 25, and some nests deserted by the young. The eggs are probably deposited by April 15 to 25, and the oologist who would visit this island at that time could make a rich collection of these eggs.

I was greatly disappointed in the yield of the Piping Plover (*Egialitis meloda*) and Clapper Rail (*Rallus longirostris crepitans*). A furious northeast storm prevailed for eight days in the latter part of May, causing unprecedented high tides, and flooding the beach and meadows alike as they had not been before in the spring for years. This caused great destruction to the ground breeders and my man and I picked up scores of broken egg shells of the Rails which had been washed to high water mark.

Three eggs of the Piping Plover were shown me by a fisherman which had been thrown up high on the beach and cracked. These plovers are very abundant and I spent an entire morning on my second visit in trying to mark down a nest. It was only after lying flat on the burning sandy beach for a quarter of an hour that I noticed one alight, and after a series of short runs finally settle down on its nest and contents. This was the only nest I found.

The Clapper Rails build in the high grass along the creeks on south side of the island. The surrounding meadows are so frequently overflowed that progression and search for their nests is extremely laborious on account of the yielding nature of the black mucky soil. The grass is always somewhat twisted about directly over their nests and this is how the natives find their eggs, which are highly esteemed as an article of diet. It is surprising to one who, after having tramped over the salt meadows all day without having seen a single Rail, will go after sundown to some outlying secluded

spot to hear their clapping all over the marshes on every side.

The Seaside Sparrow (*Ammodramus maritimus*) and Sharp-tailed Sparrow (*A. caudacutus*) both breed abundantly all over the place in suitable spots, and I saw a series of twenty-three sets of the former and seven of the latter which had been taken on contiguous meadow. I failed to find a set of the latter, but of the former took some fresh clutches on May 24, of four and five eggs. These birds are so easily flushed that when the collector is yet fifty yards distant they will rise and fly quietly away, and the young man who took the large series above referred to told me that the only way he could find their nest was to wear a pair of rubber boots and creep stealthily and noiselessly along the beach paths, thus surprising the birds on the nest and readily finding the eggs. The nests of a Seaside Finch are well and strongly made of the salt marsh grass and reeds and are placed on the ground above reach of high water.

In every dead tree in which there is an opening or cavity, one may safely expect to find the nest of the White-bellied Swallow (*Tachycineta bicolor*). On my visit I examined a great many nests and five eggs seem to be the complement. These beautiful little swallows are so playful and confiding that one hates to demolish the tree in which they have their homes and rob the nest. Upon hitting the base of the tree in which they are supposed to have nests, the female, if at home, will thrust her head just out the aperture above and calmly look around, then drop back in the nest. I caught one of them in my hand, so tame are they, or rather slow to leave their eggs. The Barn Swallow (*Chelidon erythrogaster*) and Cliff Swallow (*Petrochelidon lunifrons*) are sole tenants of the one dilapidated barn and some cattle and boat sheds of which the island boasts.

The Kingbird (*Tyrannus carolinensis*) is distributed about one pair to every furlong of wooded land and their nests are beautiful, being almost wholly made of usnea moss, placed on the lower limbs of trees near the trunk (generally some of the evergreens), thus being essentially different from their mode of placing them in orchards at home. I took several fresh sets of these eggs as well as the nests June 16.

The Parula Warbler (*Compsothlypis americana*) builds and breeds there in great numbers, I am sure, as they are encountered on every side in that part of the island where the moss covers the trees and limbs, but the mosquitoes are a dreadful drawback in securing their eggs, their

nests being found, so far as I am aware, only by watching the birds.

The Wood Pewee (*Contopus virens*), Crested Flyeatecher (*Myiarchus crinitus*), Chat (*Icteria virens*), Catbird (*Galeoscoptes carolinensis*), Brown Thrasher (*Turdus rufus*) Flicker (*Colaptes auratus*), and in fact all those species belonging to adjacent shores of New Jersey are here found in great numbers. They are at least ten days later in breeding, however, than the same species on mainland only four miles across the sound.

Of sea birds the most numerous is the Least Tern (*Sterna antillarum*). I was walking slowly along the beach on a burning hot morning thinking entirely of the Piping Plovers, and marvelling at their wonderful power of secreting their nests, when my attention was attracted by about 30 pairs of these birds flying about overhead directly over a large pile of shells which had in some unaccountable way been made just above the shingle of the beach. On closer examination I found a number of sets of eggs all around the base of the pile, in no case more than two eggs in a set, and frequently one, well set on. No two sets are alike in primary color and they make a beautiful series. To be taken fresh they should be collected about June 10.

The Laughing Gull (*Larus atricilla*) builds its nest on the meadows where it is difficult for man to venture, generally depositing three eggs, and although I did not take my sets myself I had a dozen sets sent to me by a man I had employed to look them up after my departure. The Common Tern (*Sterna hirundo*) is abundant and nests side by side with the Least Terns. The Roseate Tern (*S. dougallii*) formerly lived here in numbers but have been driven away by the persistent persecution of gunners.

This island is a very rich one in bird life now, but its future history is easily predicted, and before many years its rich collecting ground will be the scene of recreation and revelry, and its avian fauna transferred to other shores.

H. A. R.

A Visit to a Relative of Alexander Wilson.

About a mile from the little village of South Lyon, Oakland County, Michigan, in a fine farming country, stands the residence of James Duncan, the only surviving son of Alexander Duncan, who was a nephew of Alexander Wil-

son, the great ornithologist, and who is often spoken of in his biography. We found Mr. Duncan at home, who gave us a hearty welcome. He is tall and slim in stature, with long curly hair that hangs upon his shoulders, and a keen piercing eye, like that of his noted ancestor. He has a large farm of eight hundred acres of good farming land, beside a beautiful body of water known as Silver Lake, which abounds in fish, and on its bank he keeps a tent fitted up with a stove, cooking utensils, fishing tackle, etc., for the accommodation of his friends, who come to visit him. He is a fine cook, and if some of my ornithological friends could be at his camp and eat some of the fish that he cooks himself, they would need no other proof. His father and mother are buried on a little spot of ground, laid out for that purpose on the farm, and, having no wife or children, he hires all of his domestic help, for like Wilson, he is a bachelor. He does not seem to be overly interested in birds, but he is a noted hunter, and keeps a bountiful supply of guns and dogs, and makes his annual tour to the northern woods of Michigan in pursuit of deer, which is his favorite game.

Believing that a great majority of the ornithologists and oologists of America are not aware of the existence of a relative of the great Alexander Wilson, and feeling that it might be interesting, I was prompted to write this little sketch.

James B. Purdy.

Nesting of the Mourning Warbler.

About the year 1877, in the early days of June, as I was nest-hunting in a piece of swampy woods near the railway track, about a mile south of this town, and while I was cautiously moving through a clump of low, second growth underwood, chiefly composed of swamp maple, my attention was arrested by a series of sharp chipping bird notes, and gazing in the direction from whence the sounds came, I saw that the author was a small bird, whose plumage I then took to be of a uniform dusty brown hue. A little more research discovered that the cause of her solicitude was a partly composed nest, placed on the horizontal branch of a small cedar, a little over a foot off the ground. Her notes of displeasure soon brought her mate on the scene, and he, flitting among the newly acquired foliage of the shrubbery, added his notes in sympathy with hers, but from the glimpses that I then got of both birds, I did not discover any variation in their plumage.

I soon withdrew, leaving them to settle their little business, but intending to return in the course of a week or so, which I did, and on my approach, saw the bird seated on her nest, from which she flushed, and I found that it contained four eggs. These, with the nest, I removed, but on my way homeward threw the latter away, not knowing the prize I had in hand. These eggs have since remained in my collection, and, until lately, were labelled "Dusty Warbler." Referring to some notes, which I soon afterwards made, I find the following regarding this species: Its color is a dusty brown hue, with an olive tinge. Its common notes are a simple "eep," peculiar, too, and varying but little in the warblers. Its habitat is the outskirts of soft-wood timber lands, where there is low, thick underwood, in some thicket of which, sometimes on the branch of a small cedar or other evergreen, the nest is placed. This complicated structure is formed of dry stalks, fine strips of bark, and other woody matter, lined with fine hair. The eggs (four to the set) are white, with a sprinkling of reddish spots towards the large end.

Years passed away, and I saw no more of this species, or its nest; but during the season of 1887 some more links were added to the chain of my knowledge regarding it, and finally to its identity. On the 31st of May, of that year, I noticed coming out from among the willows, and other soft underwood, that grew on some low land adjoining my farm, the peculiar song notes of some small bird, which I did not remember to have previously heard. Desirous of becoming more acquainted with the little stranger, I approached in order to have a nearer interview. But the active little fellow, suspicious of my intentions, rapidly flitted from bush to bush, keeping himself well concealed among the leaves, near the tops of the underwoods, all the while, however, emitting his "Whit-a-dee, whit-a-dee, whit-a-dee" song. At length I got a good view of his plumage, and especially noticed his brown coat, yellow vest, and black throat.

I hunted in the vicinity for some time, but failed to discover any others of the species, or any appearance of a nest, except an old one that had been occupied the previous year, and may have belonged to this species. Some days afterwards I again searched the vicinity where my new found friend was still warbling his ditty, but failed to discover any nest, and as other work was pressing, I soon abandoned nest-seeking for the season, but almost daily,

when near that vicinity, I heard the little songster until the hay-making was in progress.

On the 4th of October, of the same season, when on my way to the Falls of Niagara, I called on Mr. Thomas McIlwraith, in the city of Hamilton, and among other specimens of mounted warblers in that gentleman's splendid collection, I noticed one which he informed me was the Mourning Warbler (*Geothlypis philadelphica*). Afterwards referring to my notes, and reading the description of this species in his work, *The Birds of Ontario*, I became certain that the strange bird noted in the early summer was the Mourning Warbler, and that the nest above noted belonged to that species, and this conclusion has been confirmed by my observation of this species during the past season.

Now, viewing the set of eggs in my collection, I note that the ground color is a clearer white, and that the dotting over the surface and the coloration towards the larger end is more of a brownish hue than the coloring of the eggs of the more familiar Blaek and White Warbler (*Mniotilla varia*), but in size and form there is scarcely any difference.

Early in May, of the past year, some pairs of this species made their appearance in some low places on "Wildwood," and for some days their pleasing songs, intermingled with those of the Water Thrushes and other warblers, enlivened the vicinity, but as June advanced their shifting about from place to place showed that they had not settled down to nesting, and towards the middle of the month they disappeared altogether.

William L. Kells.

Listowel, Ontario.

Occurrence of the Evening Grosbeak, Pine Crossbill, and Northern Waxwing in Illinois.

Among the birds whose habits are shifting and uncertain in any locality are, most notable, the Evening Grosbeak (*Hesperiphona vespertina*), Pine Crossbill (*Loxia curvirostra americana*), and Northern Waxwing (*Ampelis garrulus*), and while there are other stragglers from the north which are driven down by severe weather, their occurrence is more or less regular. For many years past the Crossbills have visited this locality in greater or less numbers each year.

In 1886 they were excessively common, being first noted in mid-winter, about the middle of January. They remained in large numbers as

late as the first of April, after which date no more were seen until August, when small numbers were observed flying overhead and well identified by their manner of flying and peculiar sharp note, something like that of a young chicken in fright.

Early in the spring of 1887 a single specimen in the flesh was handed me by a friend, who found it dead. This specimen (a male in very poor plumage) proved to be the only record for 1887. This winter there will doubtless be an abundance of them as I have already seen a number of small flocks of from eight to a dozen.

Out of a large series which I have collected or examined, all the specimens from this state are much brighter, especially the red phase, than those received from the east.

I wish also to record the occurrence in this state and the northern Missouri of the Evening Grosbeak. This species has been reported from neighboring States, Iowa, Missouri, and Kentucky in the winter of 1887, and it is therefore not surprising that it should have occurred here. I found them in some numbers at that time in the eastern suburbs of this city and just across the river in Missouri where several small flocks remained for some time. Specimens of this species in the flesh were brought me from other neighboring localities, and most of them proved to be females.

The Northern Waxwing has not been personally known to occur here, but a friend of mine, a German taxidermist of many years' experience, in the year 1870, shot and mounted several dozens of them. Large flocks remained during the winter in the bottoms and fed on a small red berry which grows abundantly in all the lower lands and below the city.

Otho C. Poling.

Quincy, Ill.

The Retention of Eggs.

The reason that the bird whose nest is invaded by the Cowbird goes to brooding as soon as ever the Cowbird's egg is laid is because the Cowbird's egg being large fills up the nest and makes the laying bird feel that she has her usual complement. As to what becomes of the rest of the eggs in the ovary, they turn black, and slough off, and if anybody in dissecting an old hen finds some rough uneven substances floating around loose in the abdominal cavity he may set them down as blasted embryo eggs that had all or part of the yolk formed and there stopped. Any egg that has once entered the oviduct and

has the shell partly formed will be laid sometime. It is laid as a soft-shelled egg, and the hen eats it.

Hens do not want food for three days, generally, after they begin to set. This doing without food helps to dry up the egg supply on hand, and to keep others from forming. As to the bird that only raises one brood, being deprived of her eggs and then laying again, it is instinct, pure instinct, she is built that way and cannot help it. She has a feeling that her race of birds will soon be extinct if she does not exert herself, so she eats some hot berries or peppery worms (this, too, by instinct) and goes to laying again in a week or ten days.

As to Walter Hoxie's old hen in the tub with the hard egg in her for a week, I would like to ask him how he knows that was the same hard egg that she laid when she escaped from her owner's coop? She most probably laid the hard egg that the little Irish boy felt and ate and matured another after that, the food supply being cut off, the other lacking nutriment, would slough off and go to waste. And I, too, think it often happens that one egg is laid after the Cowbird's egg is deposited. If it was already in the oviduct it is sure to be either as a hard-shelled egg when it is hatched with the rest, or a soft-shell, when it is thrown out of the nest or eaten. These are my thoughts.

Mahala B. Chaddock.

Vermont, Fulton Co., Ill.

A List of the Birds of Colorado.

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101. *Columba fasciata* (Say.). Band-tailed pigeon. A rare summer visitant in extreme western portion of the state. Most abundant in the southwestern part, in districts covered with a growth of scrub-oak, feeding principally upon acorns, which are swallowed whole. The nest is placed upon the ground, or in the oak bushes in high altitudes, but lower down where reptiles are abundant, it breeds from 12 to 30 feet from the ground. One egg is most commonly found, but two are sometimes deposited. They are pure glossy white, averaging 1.63 by 1.09. According to Drew it breeds from 5,000 up to 8,000 feet. I find no record of *E. migratorius* occurring in the state.

102. *Zenaidura macroura* (Linn.). Mourning Dove. Very abundant summer visitant. Breeds everywhere, upon the ground or in bushes and trees. Eggs, two, sometimes three.

103. *Melopelia leucoptera* (Linn.). White-winged Dove. Summer visitant; not common. There is no record of its nest and eggs having been taken in the state. Found up to 11,500 feet. (Drew).

104. *Cathartes aura* (Linn.). Turkey Vulture. Summer visitant, common. Breeds up to 12,000 feet. Found one nest at this altitude in La Plata Mts. It was placed in the cleft of a large broken boulder upon the mountain's side. The eggs were two, of a dirty white color, blotched with different shades of reddish brown. They were deposited in a slight hollow, in which dirt had been washed, and the ground color was somewhat discolored from contact with it. They measured 2.73 by 1.95, and 2.70 by 1.91. The vicinity of this nest was dirty and loathsome, the stench being something terrible.

105. *Circus hudsonius* (Linn.). Marsh Hawk. Summer visitant; common. May be found in winter in southern portions of the state. The number of eggs to a clutch of this species has caused some argument in past years, as high as twelve and thirteen having been given, (see Brewer's North American Oology, p. 115, Smithsonian, 1858), but it is safe to put it at from three to six. Extreme sets of seven have been taken, and upon good authority. They are, when freshly laid, of a greenish-blue, but change in the nest to a dirty white, which is generally supposed to be the true color. They are usually plain, but sometimes spotted and blotched with purplish brown. Nest is on the ground always, but not to be described, as I never yet saw any so near alike as to warrant a description that would be characteristic. Sometimes the eggs are simply deposited in a hollow in dry moss or grass. More often, however, a nest is made of grass, with a slight foundation of sticks, or twigs, all very loosely thrown together.

106. *Accipiter velox* (Wils.). Sharp-shinned Hawk. A resident as far north as Fort Collins. Tolerably common. This species is far more common than is generally supposed, but for some reason seems to be easily overlooked. Even Dr. Hayden did not observe it during the Warren explorations, in a country where it is very common. It is most abundant in Colorado in the mountainous portions, and I have many quotations from such localities. It breeds up to 9,500 feet. It builds a nest of small twigs, with but scanty lining; it also uses old magpies' nests that are in ruins, and deposits its eggs upon the dome, which has fallen upon the nest proper. Their eggs vary

greatly in coloration, and it would take a large series to describe them fully.*

107. *Accipiter cooperi* (Bonap.). Cooper's Hawk. Summer visitant (?) in northern portions; resident in the south; common. Breeds in trees, or upon rocky ledges of the canyons, and the immense "wash-outs" of the prairie. It preys upon Grouse, Hares and reptiles. Its fondness for the ranchman's poultry is very nearly paid for by the insects it eats; both this and the preceding, adding grasshoppers and bugs to its bill of fare. Eggs are pinkish-white, sometimes faintly spotted with light brown. These spots or blotches are often nearly obsolete. Three or four are the number to a clutch, with extreme sets of five. I will say here that the farmer and ranchmen of the West will find this and *A. velox* more their friends than enemies, although in the East where its natural prey is scarce, this can hardly be said, as its frequent descents into the poultry yard will attest.

108. *Accipiter atricapillus striatulus* (Ridgw.). Western Goshawk. Resident in mountainous portions of the state. Tolerably common. Breeds at 10,000 feet. This is the handsomest bird of its family, but of a far more ferocious nature than the two preceding species, although their general habits are much the same. Eggs much like *A. cooperi*, but of larger size.

109. *Buteo borealis calurus* (Cass.). Western Red-tail. Resident; common. Breeds throughout the state on plains and in mountainous districts. Its habits are the same as *borealis* proper, but it nests in the West upon ledges throughout the plains district, and in the mountains will often select quite low sites for its nest-making. It is much easier work to secure its eggs than in the heavy woods of New England. Eggs, generally three, but too well known to require a description here. Ranges up to 13,500 feet in autumn.

110. *Buteo harlani* (Aud.). Harlan's Hawk. Winter visitant; rare. Reported by Captain Thorne from eastern Colorado.

112. *Buteo swainsoni* (Bonap.). Swainson's Hawk. Resident; tolerably common. Most often found in the timber fringing the streams. Nest is a very bulky affair, and from 12 to 50 and 60 feet from the ground. I found a nest in Wyoming on September 12, 1884, in a dwarfed cottonwood. It was very large, and had a good-sized platform on one side, sitting upon which was a single young bird, just

* Mr. J. Parker Norris has done this. See O. & O., pp. 75-77, May, 1888.

ready to leave the nest. Perhaps a second set, or an uncommon case of late breeding. I took this bird home and kept it until December of that year, keeping it in a hen-coop; but I was called upon so often to extricate small boys' hands from the grasp of its sharp claws that I got tired of the domesticating process, especially as small boys' fathers had vowed vengeance on both my pet and myself. However, the taming process was not a success; instead, my bird got more savage every day upon its fare of Dusky and Sage Grouse. Its appetite was amazing, and considering I had one Red-tail, three Great-horned, and four Long-eared Owls to feed, it kept me pretty busy to supply the demand for fresh meat. I kept both the hawks in one coop, and they got on remarkably well in their own respective corners, but there was trouble when either one wandered too near the other's retreat. Feathers would then fly, but the wanderer always took the quickest route back, and quiet would reign again. In the fall grasshoppers form the principal diet of this species, although gophers and small birds also are fed upon. Eggs, one to five; soiled bluish-white, speckled, spotted, blotched or splashed with dark reddish brown.

113. *Archibuteo lagopus sancti-johannis* (Gmel.). Reported by Drew and Anthony as a winter visitant, and by Bremninger as a resident. This is no doubt a mistake, and further notes from Bremninger would be acceptable. However, it might be found as a resident in mountainous districts. It is supposed to breed north of the United States. I have seen it in late summer in Wyoming, but this is no evidence of its breeding. Nest of sticks, twigs, etc., in high trees or on ledges of almost inaccessible cliffs. Eggs, three, of dull white to creamy, sometimes plain, but when marked are blotched with several shades of brown, with now and then nearly obsolete spots or blotches of purplish.

114. *Archibuteo ferrugineus* (Licht.). Ferruginous Rough-leg. Reported by Bremninger as "resident"; common. Habits somewhat similar to the preceding, but more a bird of the plains, preferring the ledges of the deep "wash-outs" to the high cliffs of the mountains. Nesting similar, but the eggs pass through even more variation of coloring than the preceding. Eggs, three, sometimes four, and seldom two.

115. *Aquila chrysaëtos* (Linn.). Golden Eagle. Resident. It seems to be rare in some portions, but from the number of quotations and my own experience, I should judge it tol-

erably common, as it surely is on the western slope of the mountains. I have taken four sets of its eggs in different localities in the La Plata mountains. This species may build its nests in trees in California, but not in the region of the Rocky Mountains. In Colorado it chooses ledges and niches of the rugged and perpendicular cliffs, and the taking of its eggs is a very dangerous undertaking, and in many cases nearly impossible. The same nest is used year after year. I know of one nest that has been used ten consecutive years. The old nest is added to, in such cases, until it often assumes enormous proportions, nearly filling the large niches in the lime-stone cliffs and towering high in air when placed on ledges. The eggs are no longer a rarity, a large number of the eggs now in collections coming from California. Found on the plains in winter, though a few breed on the ledges of the largest "wash-outs" of the prairie in both Colorado and Nebraska.

The nest spoken of above as having been occupied ten years is in Clear Creek Canyon, Wyoming, near Fort McKinney. The taking of two young from this nest nearly cost me my life in '84. I could not reach the nest from the bottom of the cliff, so took a detail of five soldiers mounted on good horses, with plenty of rope and a windlass. By making a detour of a few miles south of the canyon, I reached the top of the cliff, and spent the afternoon in shipping my windlass ready for use the following morning. Winding up my rope to the end, I built what a sailor calls a "bos'n's brig," that is, a triangular affair of boards, upon which I sat and lashed! a small bucket for the eggs; my gun I slung over my shoulder. At sunrise I sent one man round to the bottom of the cliff with my horse, and when he reached there I was ready to be lowered to the nest. I had rope enough to reach to the bottom, and instead of being drawn back to the top (as it would be impossible to make a land,) I calculated to be lowered to the bottom. I reached the nest safely and, instead of eggs, found two very fierce-looking young, who resented my intrusion upon their domain in a very ugly manner. The old birds also caused me quite an amount of anxiety, as they came into by far too close quarters. I finally shot the female or rather winged her and, falling to the ground below, made things very lively for my companion awaiting me there.

I finally succeeded in dislodging the young and sent them to the ground and, giving the signal to "lower away," I was soon on my way

to terra firma myself, which I reached in a very unceremonious manner. I had not calculated rightly upon the weight of my rope and the result was that when I had got within about thirty feet or more of the ground the rope broke of its own weight. Luckily for me the cliff was of sandstone and the rains and snows of years had washed the sand off so that, instead of striking a rocky flat bottom, I found myself suddenly shot from the high sandy bank (upon which I sat so hard) out nearly at right angles with the cliff, and after performing many unheard of acrobatic performances, I finally dropped softly (?) into a pile of rocks, and knew—nothing. Clear Creek was not far away, and my friend soon brought me to my senses, and I awoke to see my young eagles "lariated" out to stakes, while Jim, my companion, was busy rubbing my wrists and performing all the things known by him to bring a person stunned to their senses. Every bone in my body was sore, but none broken, and after several weeks I was once more on my feet. However, I lost the best of the collecting season that year, and I seldom climb a high tree or ledge that I do not think of two young eagles and a sand-stone cliff, in Clear Creek Canyon.

(To be continued.)

Charles F. Morrison.

Nesting of the Canada Grouse in Captivity.

As it is almost impossible to find eggs of the Canada Grouse (*Cuniculus canadensis*) in their native haunts, and being determined to obtain some, I concluded to overcome the difficulty by capturing and domesticating some of these birds. With this idea I built an enclosure about thirty feet square, and of sufficient height to allow me to walk about inside of it. I built this of strips of boards three inches in width, with two-inch spaces between them for the admission of light. Having cut spruce tree-tops, I placed them in different parts of the enclosure, which gave it the appearance of a natural forest, and also served the birds for roosting places. These spruces I renewed from time to time to keep them fresh.

I placed birds in this enclosure as rapidly as I could obtain them, but for a long time they died so fast that I, at any one time, never possessed more than four. I have lost, in this way, twelve or fifteen birds.

These birds are found scattered through the

central ridge of the province running east and west. They are confined to this region for two reasons, first, because in this out of the way district they are more out of the reach of hunters, and second because the nature of the bird renders this lonely region the most suitable abode for them.

I imagine that their absence from the haunts of the Ruffed Grouse (*Bonasa umbellus*) is to be accounted for by their extraordinary tameness—a tameness which precludes the possibility of escape from extermination in even moderately populated districts. In fact, they have been exterminated, except in places which are not frequented to any great extent by the sportsman.

The manner of their capture is as follows: One who knows their haunts and is familiar with their habits takes a slim pole, from twelve to fourteen feet in length, to the end of this pole he attaches a snare made of soft twine. Armed with this weapon, he approaches the bird who is probably perched on a spruce limb; slowly and cautiously, step by step, he advances, holding the pole ready; the bird eyes him curiously; nearer and nearer the noose approaches; suddenly, with an almost imperceptible movement, the fatal noose descends over the head of the doomed victim; a slight jerk, and the captive is brought struggling and fluttering to the ground. The noose is then loosened from its neck, and the captive is deposited in a covered basket carried for the purpose.

The operation I have described is a delicate one, and requires good judgment and careful management. It is not every one who starts out with a pole and noose who brings back his bird, for the least awkwardness or abrupt movement, or a little mismanagement, and the bird is gone. And, in this case, as he cleaves the air with rapid pinion, distance fails to lend enchantment to the view.

These rapidly recurring deaths taught me that if I was going to succeed it was necessary for me to ascertain, by a careful examination, what conditions were necessary to the health of the birds, what was their proper food, etc. I began to examine and study the contents of the crops of birds sent to me to be mounted. In this way, and by introducing different varieties of food, I learned what was most suitable for them, and so completely was I successful that for the last ten months I have not lost a single bird. In fact, they are in better condition than the wild ones, having now (Ang. 4) almost completed their new suits, while

those in a wild state will not be further advanced in moulting by the end of September.

Through the latter part of the winter of 1888, and when the nesting season began, I had six hens and one cock. When first caught and placed in this enclosure, the birds were quite shy and kept themselves out of sight most of the time, hiding under the limbs of the spruce trees. After a few weeks, however, they became tame, and would come and eat their food quite fearlessly when brought to them. Indeed, I have had three or four of them get upon my knees at the same time and eat from my hands. They are perfectly contented in their new home and do not exhibit the least appearance of uneasiness, nor any desire to obtain their freedom. When I go in they will often come up to me and look for food in the same manner as domestic fowls.

It is very interesting to watch the male bird strutting. His performances appear laughable to one looking on, and in this attitude he has the appearance of an entirely different bird. The tail stands nearly erect, the wings are slightly raised from the body and a little drooped, the head well up, and the feathers of the throat and breast raised and standing straight out in regular rows, which press the feathers of the nape and hind neck well back, forming a smooth kind of cape on the back of the neck.

This smooth cape contrasts beautifully with the ruffled black and white feathers of the throat and forebreast. The red comb over each eye is enlarged until the two nearly meet over the top of the head. This comb the bird has the power of enlarging or reducing at will, and, while he is strutting, the expanded tail is moved from side to side, regularly with each step, and this movement of the tail produces a distinct and peculiar rustling like that of silk. In this attitude he may be seen almost any time from the middle of March to the middle of July. During this period, if I should happen to go to the pen when he is not strutting it is an easy matter to make him do so.

He will sometimes sit with his breast almost touching the earth and his feathers erect as in strutting, and making peculiar nodding and circular motions of the head, from side to side; he will remain in this position for two or three minutes at a time. He is a most beautiful bird, and shows by his actions that he is perfectly acquainted with the fact.

The females, in the nesting season, are very quarrelsome. They seem to wish to get away by themselves, and it is seldom that more than

two or three can be kept in the same pen. When the nesting is over, the social instinct asserts itself and they become again on friendly terms, and orderly members of a well regulated establishment, and may all be kept in one pen without difficulty.

As the nesting season approaches, I prepare suitable places by putting spruce limbs in such a way as to form a cosy little shelter, in which a bird may form a nest. They pay no attention to this until they want to lay. When that time comes they select a spot and, after making a depression in the ground, they deposit in it the egg.

During the time a hen is on the nest laying she utters, continually, a kind of cooing sound which I have never heard on any other occasion. If there should be grasses and leaves at hand, in sufficient quantity, she will sometimes cover up the egg, but not in all cases. No nesting material is taken to the nest by the bird until three or four eggs are laid. After having deposited this number, the hen, every time she leaves the nest after laying, picks up straws, leaves, grasses and whatever else she requires, and throws the material thus selected back behind her as she walks away from the nest. She does not carry these things to the nest nor pay any further attention to them, beyond throwing them behind her until another egg is laid, when the same performance is repeated, and, by the time the clutch is completed quite a quantity of material has been gathered up near the nest. While sitting on the eggs she will then reach around and draw in whatever she requires that is within her reach, sometimes stepping up on the edge of the nest and picking up a quantity of straws; she will then back down gently with it and deposit them around her. I have never seen the birds carrying material to the nest, nor proceeding in any other manner than that described.

As the coloring of the eggs is entirely on the surface I removed them from the nest as soon as laid to prevent them getting soiled or the spots blurred, leaving only the nest egg. In this way I have been able to secure the most perfect specimens that can possibly be obtained. I have been very careful to keep the eggs of each bird separate, and also the date upon which each egg was laid. The dates corresponding to the eggs laid are as follows:

Hen No. 1, May 2d, 5th, 7th, 10th, 12th, 15th, 17th, 20th, 22d, 24th, 26th, June 3d, 6th, 8th, 11th, 14th. Total, 16.

Hen No. 2, May 3d, 7th, 12th, 17th, 19th, 21st, 23d, June 3d. Total, 8.

Hen No. 3, May 8th, 10th, 12th, 14th, 16th, 18th, 20th, 22d, 25th, 27th, 30th, June 1st, 3d, 6th, 8th. Total, 15.

Hen No. 4, May 9th, 12th, 14th, 16th, 18th, 21st, 23d, 25th, 27th, 29th, 31st, June 3d, 5th. Total, 13.

Hen No. 5, May 15th, 17th, 19th, 21st, 24th, 25th, 27th, 29th, 31st, June 2d, 4th, 7th, 9th. Total, 13.

Hen No. 6, May 16th, 18th, 20th, 22d, 24th, 26th, 28th, 30th, June 1st, 3d, 6th. Total, 11.

All the above eggs have perfect shells, while last year, out of nineteen eggs from three hens, I had two which had imperfect shells, and they had not the full thickness. I have learned among other things the proper food required for the formation of perfect shells. I do not, however, in the present article, intend to communicate the results of my experimental investigations in the matter of feeding. It is knowledge which has been the result of hard work, and, in simple justice to myself, I think I am right in reserving, at least for the present, the information for which I have toiled.

Watson Bishop.

[Two sets of eggs of this species are now before me. They were both laid, in captivity, by two of Mr. Bishop's birds, and may be thus described:

Set I. Laid by hen No. 2, on May 3, 7, 12, 17, 19, 21, 23, and June 3, 1888. Eight eggs, ovate in shape; ground color hazel, speckled and spotted with chestnut. On most of the eggs there are spots of a lighter tint than the ground color, as if a portion of the latter had been rubbed off in these places: 1.74x1.24; 1.68x1.22; 1.64x1.24; 1.74x1.25; 1.64x1.27; 1.73x1.25; 1.75x1.23; 1.72x1.25.

Set II. Laid by hen No. 4, on May 9, 12, 14, 16, 18, 21, 23, 25, 27, 29, 31, June 3, and 5. Thirteen eggs, ovate, but less pointed than Set No. I. Ground color vinaceous-cinnamon, spotted with chestnut: 1.66x1.24; 1.59x1.28; 1.61x1.25; 1.60x1.21; 1.58x1.25; 1.60x1.25; 1.60x1.27; 1.65x1.32; 1.65x1.23; 1.60x1.27; 1.71x1.22; 1.69x1.25; 1.62x1.26. What makes this set especially interesting is the fact that

Bishop marked each egg in the order that they were laid, as he removed them; and egg No. 1 has the fewest markings on it, while the spots gradually increase in number and size on the others, so that egg No. 13 is the most heavily marked of all. Now, this is directly in opposition to the generally received theory that the first laid eggs in a set have the heaviest

markings, while the last are the lightest marked. But theories must yield to facts.

Mr. Bishop is to be congratulated on his wonderful success in getting these birds to lay in captivity. His experiment would seem to lead to the conclusion that they could be easily domesticated.—J. P. N.]

Wanderings.

It was my good fortune, in the latter part of February last, to spend a few days in the sparsely populated section of Plymouth county, Mass., my object being a raid upon the nests of the Great Horned Owl. The trip proved unsuccessful, although a set of eggs was taken two weeks later by my *camarade au pied*, from one of the nests visited, but from observations taken then, I was led to believe that the locality would prove fruitful later on, when the small birds made their appearance.

Accordingly, about the first of June, in company with my friend, Mr. E. A. Lewis, I visited the place again, and spent about ten days in thoroughly exploring the locality.

We made our headquarters with Mr. M. V. B. Douglass, at a farm-house, which is situated on the banks of Half-way Pond, the source of the Agawam River; and to his kindness and advice, as to the lay of the land, was due much of our success, although Mr. Lewis was quite well acquainted.

This pond, fed principally by springs, is located nearly on the water-shed between the Atlantic Ocean and the Vineyard Sound. The country about it, from its geological position, being the end of the glacial territory of Massachusetts, is much diversified by hills and valleys, water courses, and small ponds, and situated as it is, eleven miles from the railroad terminus at Plymouth Rock, is very little settled, and affords fine opportunity for the nesting places of such birds as tend to avoid the presence of man. In fact, the absence of the more common birds, like the Brown Thrushes, Blackbirds, etc., was particularly noticeable, and but one or two Robins were seen during the trip, their place being occupied by the rarer Warblers, the Hawks, and the Owls.

The principal objects of search were the nests of the Blue yellow-back Warblers (*Parula americana*), which are rarely, if ever, taken within twenty-five miles of Boston, and it was here that my first nest of this bird was seen.

It was in the morning of our first trip, as we were pushing our way through the thick scrub on a hillside, at the foot of which flowed the

river; suddenly, one of these birds attracted my attention, and, as I stood watching her motions, I saw what seemed to be an unusual looking clump of the long moss which hangs upon nearly every dead tree, and many of the live ones near by. Examination disclosed a nest about five feet above the ground, apparently hollowed out of the moss, with the entrance on the side, and containing four fresh, beautifully marked eggs. The nest was devoid of lining, which was true of every nest found, with the exception of one, which bore a few horse hairs.

We continued our course down the river, and while examining some promising looking clumps of bushes, I heard my friend's "whoopee," and, approaching, found him bending over a curious specimen of "bird eccentricity."

A pair of Chickadees (*Parus atricapillus*) had taken, as a home, a hole in a decayed stump, which was not over 18 inches high, and in a cleft in the very top of the stump, about a foot deep, lay the nest, composed, as usual, of rabbits' hair, swamp moss, and feathers, with its full complement of six young.

Neither of us had ever seen nor heard of such a nest, and I have not since been able to hear of a parallel case, and we felt fully repaid for our trip by this one "find."

A little farther on we discovered the hole of a Kingfisher, in the bank of a pit used to "sand a bog," and the bugle notes of the male as he flew over our heads betokened that madam was at home. Procuring a long-handled shovel from the "boggers'" camp near by, we soon had the orifice sufficiently enlarged to see its occupants, and were disgusted to find that it contained seven gaping young, and the "old lady" was huddled away in the farthest corner of the burrow. It would hardly be polite to quote what was said. Such is life.

We next went to Fawn Pond, a beautiful sheet of water three-fourths of a mile in diameter, and while quenching our thirst with its sparkling contents a shadow struck the water, and directly over our heads appeared a fine adult specimen of the Bald Eagle, with its pure white head and tail glistening in the sunlight, not fifty feet away.

He was truly "monarch of all he surveyed," for my gun was at the farm-house, five miles away.

We then retraced our steps, arriving just in time to sit down to a dinner such as only our hostess can produce.

The afternoon was spent in a tramp around Half-way Pond, finding no eggs of any particular note. We saw some Parula and Pine-creeping Warblers, but failed to locate their nests. Upon a strip of high woodland between Half-way and Long ponds, the trees fairly teemed with Vireos, but it was too early for their eggs, as we found after climbing several trees.

Long Pond, mentioned above, presents a rather peculiar state of affairs. It is over a mile long, and about one-half a mile wide, completely surrounded by land, without any visible outlet, except an artificial canal, or rather tunnel, built to flood a cranberry bog, connecting it with Half-way Pond, which is only about 900 feet distant, and whose waters are about 9 feet lower than those of Long Pond.

The next day was of little moment, as little was done, my friend being called away upon business, and I did little but explore the woods near by. But upon the following day we started in the morning to explore an island which is located in the middle of Half-way Pond. This island is thickly wooded, not having been cut off for many years, and protected from the forest fires which have burned off so much of the surrounding country. Here, bird life reigned supreme. Parulas, Red-starts, Downy Woodpeckers, Vireos, etc., were in abundance, and we found the nest of a Cooper's Hawk with two eggs, which were then left for a complete set. (We visited it again in three days, but no more eggs having been laid in the meantime, we appropriated them.) After spending three hours here, we started for White Island Pond, about 7 miles away. Here there were Parulas "galore," and we found several nests, one set seen being very peculiar in shape, which was almost pyriform, like some of the sea-birds. A Barred Owl was started from his meal of fish here.

While descending a steep bluff to the water's edge, and clinging with both hands and feet, to keep from "going by the run," a small bird started from directly beneath my feet, and disappeared in the thick underbrush before I could get a good look at her. Not daring to move, I called Mr. Lewis to try and identify it, but no bird was in sight; however, we found the nest just under my uplifted foot, built under the arch of a root, and containing a set of eggs, referable to the Black and White Creeper. We went away for a short distance, and busied ourselves for a time, and upon returning found our suspicions con-

firmed, for Mrs. Creeper sat upon the nest. This was the first time we had ever found one, and only a "crank" can imagine our feelings.

We reached home about dark, after a 25-mile tramp over sandy roads and through scrub oaks and underbrush. O! how good that supper tasted, after an enforced fast of over eleven hours. We propose to revisit this locality next year, and expect to find new things of which our readers may expect to be informed.

Frank A. Bates.

Unusual Numbers of Goshawks and Barred Owls.

The Goshawk is considered a somewhat rare winter visitor for this section, and I had not seen one for over a dozen years until this fall, when our taxidermist called me in to see a "new species of hawk." This was about the first of November, and, in about two weeks' time, four more specimens in fine plumage were brought to the same place. I also shot one in Nelson county, Dakota, about the 20th of October. Four specimens of the Barred Owl have also been brought in. This is also an unusual number, as only one specimen has been received here in the last six years. Mr. Pierson, the taxidermist above mentioned, and myself being the only 'dermists in town, all work of this kind would come to our notice. We have just set up a splendid specimen of the "Snowy Owl"—rather early in the season for these northern visitors.

H. L. Skemlan.

Janesville, Wis., Dec. 18, 1888.

Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

Well, here we are again, with ink on our pen hardly dry from closing Vol. XIII., we open Vol. XIV. As we glance back over our five years' connection with the O. & O., for the instant, it barely seems more than that between the two issues, but when we contemplate the changes, we are more fully impressed with the reality.

Should any of the early subscribers who ceased their interest when the control fell to our lot, take a copy of to-day and scan its pages, what would most forcibly rivet their attention would be the absence of the familiar names of those who used to contribute, and the question would arise, where are they?

A number have joined the ranks with the immortal Audubon, Wilson, and Nuttall. They were not widely known, but were dear to many of us.

Each star, no matter how faintly
It twinkles in far off space,
Is a part of a great constellation,
No other can fill its place.

Others have retired from the field, as the pressure of business has fastened its iron grip upon them,—for such we feel a pity. We believe the time devoted to the study as a recreation would more than compensate. Others have outgrown the O. & O., soared to a more ethereal atmosphere, and are wearing crowns of glory in the scientific strata. A few remain firm and their kind words are received with pleasure. But the sinews of war are found in the young, and the O. & O. looks for its principal support to those who are entering upon the field.

The position that it occupies, which is second to none, and in which it will continue, is due to its representing their interests. Controlled by no special organizations, its columns open to all, it is more general than it would otherwise be. We have repeatedly called the attention of its readers to the desirability of increasing the regular subscription list (the spasmodic circulation is luxuriant). We are continually called upon to furnish names of ornithologists of various sections, when systematic observations are to be made, or there are important announcements; then it is that the regular list is of utmost importance. *To-day there is no medium through which hardly more than a corporal's guard of our working ornithologists can be regularly reached!* Let our readers consider the matter and make an effort to increase the circulation. We do not ask it from a selfish motive, but from a firm belief that a great benefit may be derived.

Unhinge Those Gates.

It is a pitiful sight to see men, who believe themselves to be in the full enjoyment of American liberties, crawl on their hands and knees under a gate to board a train on the Old Colony Railroad. We hope that the public will take steps to put an end to this nuisance.

Volume XIV., O. & O., will be printed by Randall & Langley, proprietors of the Hyde Park (Mass.) Times.

Brief Notes.

A set of two eggs of the Canada Goose was taken about the last of April at Lexington, Mass. The geese were noticed flying every morning at break of day, regularly, to a certain locality, which attracted attention. Upon investigation the goose was discovered on a nest, which was a hollow, at the foot of a large pine, about four feet from the water, and about five rods from an ice-house, on the land of Henry Simonds. The finder placed the eggs under a hen, but they failed to hatch. The geese disappeared after the nest was disturbed.

C. G. Somers reports a White Owl at North Weymouth, Mass., about December 15.

"The Killdeers are flying around yet, but not quite so plentiful as they were after the hard storm. You could see them most anywhere. I have not seen any before since I was a boy (about 35 years); then they used to be here all summer, and were found in pairs. They nested in the old mossy field."—R. S. Young, Chatham, Mass., December 17, 1888.

A Killdeer Plover shot December 25, on Charles River, just out of Boston, by W. P. Coues.

Harry Austen shot a Night Heron in young plumage; also received a Florida Gallinule that some boys killed with stones, both at Halifax, N. S., about November 18. He also received from a friend in Kentville, an Albino Woodcock. No use, Canada must be annexed.

A ♂ Mallard was shot at Chatham, Mass., December 14, by Rufus F. Nickerson.

A correspondent asks: "Where do the Gulls roost at night, that come up the Delaware River?"

Captain N. E. Gould, whose notes are occasionally seen in the O. & O., it may be interesting to our readers to know, has charge of the Life Saving station at Chatham. This we believe to be one of the most dangerous localities on the coast. After any severe storm we are sure to see accounts of vessels in distress, under Chatham localities. Capt. Tuttle, of Monomoy Island station, is in the same locality. We have kind remembrances of his acts of courtesy extended to us during our visit to the island last season.

Should any of our readers ever have the misfortune to be shipwrecked, our best wishes would be that they would fall into the hands of such men.

We may be permitted to suggest that a Western publisher of a "Petite Journal" appears a trifle fresh when he denounces other publishers because they run their own affairs.

We notice that others, besides our correspondents, are not quite satisfied with Mr. Ballard's patronizing puffs.

Recently, in the afternoon of one of our pleasant early December days, a garrulous Bluejay flew into a house through an open door, undoubtedly tempted to the unheard of proceeding by the sight of a mounted Short-eared Owl on a stand in the centre of the room. The jay made a great outcry, quickly receiving answering screams from his mates outside. He flew at the owl, but was wary about getting too close. The appearance of a person in the room caused a hasty exit of the highly excited bird, or it would be hard to tell what the result would have been. Kalamazoo, Mich.

We understand that Mr. George G. Cantwell of Minneapolis, Minn., is desirous of obtaining a list of all Minnesota ornithologists for the purpose of preparing a list of birds of that state. We recommend him to the tender mercies of our subscribers.

WHAT IS IT? At Washington, recently, John Hezelton found a partridge nearly eaten, which had been caught in a trap. He reset the trap and returning in a short time found a large bird of the hawk species caught by the toes. The bird was different from anything he had ever seen. It had red eyes and a plumage of various colors, red, blue, green, etc., and is quite an enigma of the feathered tribe.—[Manchester (N. H.) Union, December 22.]

An exchange calls upon us to give them a little light upon the "Mugwump," which certain Massachusetts politicians, during the last campaign, have styled an "Eastern Bird." We should describe it as a bird that lays addled eggs.

We have seen many specimens of what is known as Mexican featherwork, but never any that appeared so artistic to our ornithological eye as one that we received from German G. Pedrozo. It represents a humming-bird, life size, hovering over a cactus in full bloom. It is made by arranging the feathers one by one. Mr. Pedrozo is at present located at Worcester, Mass.

New Publications.

Maynard's Nests and Eggs of North American Birds. In this work, of which we have received the advance sheets, full descriptions of the eggs of North American birds are given, together with the breeding range, time of nesting, number of eggs deposited, and description of nests. The arrangement is that of the check-list of the A. O. U. and the nomenclature is the same as far as is there given, but as all species recently described are given, either in the body of the work, or in an appendix, the present work contains more species than any hitherto published.

The work is peculiar, inasmuch as the descriptions given are comparative, the comparisons being made either with some well known species or with a figured type, of which there are about eighty occupying ten plates, carefully drawn on stone by the author and colored by hand.

Mr. Maynard's well known experience in oology, extending over a period of thirty years, during which time he has not only collected largely, but in his former capacity as a dealer has had many thousands of specimens pass through his hands, is a guarantee for the accuracy of the work.

The work is advertised to appear in eight parts, one or two plates to accompany each part, three parts now being ready and the entire work to be completed by the first of May, 1889.

Names and Portraits of Birds, by Gordon Trumbull, a recent publication of Harper & Brothers, is a work that is especially intended to benefit the local gunner and enable sportsmen from different sections to understandingly discuss the merits of their favorite grounds.

That our game birds are endowed with a kaleidoscopic nomenclature, to an extent that in a visit to a new field one finds great difficulty in obtaining intelligible information from the natives, is admitted, and it is high time that this was remedied. That no successful effort in this direction has been made by our leading sporting publications is by no means flattering to them as being of practical benefit to their readers, and it is hoped that they may yet turn their attention to it. The work in question is a good step in the right direction.

The author, to use his own words, has presented "Those birds which particularly interest gunners, including, however, only those species which are found in the eastern half of the United States, and again only those birds which bear aliases to a confusing degree." Beginning with the Goose, followed by the Ducks, Rails, Grouse, and ending with the Snipe and Bay birds, each individual is numbered, and scientific name given, then a brief practical description. Next the common name (*accepted*) and as many *locals* as the writer has been able to obtain, and to crown all a fine illustration which we can endorse by again quoting from the author, "*A good picture is worth more for the purpose of identification than all the descriptions ever written.*"

In some instances we seem hardly better off than the aborigines. Under the head of No. 31, *Erismatura rubida*, Ruddy Duck, Mr. Trumbull finds it known as "Blue-bill, Broad-bill, Broad-bill Dipper, Hard-headed Broad-bill, Sleepy Broad-bill, Dipper, Dopper, Dapper, Mud Dipper, Bumblebee Coot, Creek Coot, Coot, Spoon-bill, Spoon-billed Butter-ball, Butter-ball, Butter-duck, Butter-bowle, Batter-seoot, Blather-seoot, Blatherskite, Bladder-seoot, Sleepy-head, Sleepy-duck, Sleepy Coot, Sleepy Brother, Fool-duck, Deaf-duck, Shot-pouch, Bull-neck, Stub-and-twist, Daub-duck, Goose Widgeon, Widgeon Coot, Widgeon, Hard-head, Tough-head, Booby, Booby Coot, Salt water Teal, Brown Diving Teal, Stiff-tail, Quill-tail Coot, Pin-tail, Bristle-tail, Heavy-tailed Duck, Stick-tail, Spine-tail, Dip-tail Diver, Dun Diver, Ruddy Diver, Dun bird, Hickory-head, Greaser, Water-partridge, Steel-head, Rook, Paddy, Noddy, Light-wood Knot, Paddy-whack, Dinkey, Dickey, Leather-baek, Dumpling-duck, and Hard-tack."

With such a bewildering array, and each as much a matter of fact in its locality as the scientific name to the student, the value of this work of reference can be readily comprehended.

Mr. Oliver Davie's new edition of *Nests and Eggs of North American Birds*, will soon be ready, we have received the advance sheets for examination. Mr. Davie has adopted the A. O. U. nomenclature, and much has been added to the general description of nestings, localities, and measurements. We should judge that it will be about double the size of the previous edition, and shows a marked advance. In this edition Mr. Davie has received valuable assistance from J. Parker Norris, Esq., Oological editor of the O. & O., which insures great care in the details of its make-up. This is Mr. Davie's third revision and undoubtedly by the time this is exhausted there will be still further information to be incorporated. We suggest that when any fact is noted at variance with, or that has been overlooked, Mr. Davie's attention be called to it, which will aid him in his efforts to supply us with the *very latest*.

We are in receipt of a copy of Eberhart's *Key to the Families of Insects*. This work fills a long vacant space in entomological bibliography and deserves the support of every student of this science. It is especially adapted to the beginner, being both comprehensive and complete.

Key to the Families of Insects, by Noble M. Eberhart, B. S., 8 pp., with plate. Popular Publishing Co., Chicago Lawn, Ill.

We have received the first number of W. H. Foote's (Pittsfield, Mass.) publication. It is a fifty-page semi-annual, devoted to ornithology and oology. In typographical appearance it is excellent. We wish Mr. Foote success in his undertaking, but regret that he should have selected a name that is of confusing resemblance to the one that we have used for many years.

Correspondence.

Editor O. & O.:

Have just returned from South Florida. If you have any friends tell them never to go there till after mosquito time. They are just a holy terror, and that about half expresses it. Found quite a bunch of O. & Os. awaiting me at the post-office.

But I had a lovely time in the interior north of Okeechobee, and send you a specimen of Seminole ornithological lingo that may be interesting. I did not find the language very hard to learn, and can jabber it quite fluently. The grammar, when you get the hang of it, is

quite easy, and the numerals simply perfection, for one hundred is "Tillipahlin pahlin tillipahlin hurnkin," that is, nine tens, nine and one. I shall have lots of interesting material for your pages this winter if I can only get time to write up my notes. Very truly yours,

Walter Hoxie.

SEMINOLE NAMES OF BIRDS.

Opah',	<i>Barred Owl.</i>
Sneek hah',	<i>Red-shouldered Hawk.</i>
Cha ham is'kah,	<i>Towhee.</i>
Tsan tso ka wa',	<i>Red-bellied Woodpecker.</i>
Talpa na'ni,	<i>Golden-winged Woodpecker.</i>
Tas ko'ka,	<i>Red Cockaded Woodpecker.</i>
Fas ta no'ki,	<i>Red-poll Warbler.</i>
Yo his'ka,	<i>Bluebird.</i>
Tash'ka,	<i>Bluejay.</i>
Quo a chay',	<i>Quail.</i>
Tap la ko chee',	<i>House Wren.</i>
Han at' See lo',	<i>Meadow Lark.</i>
Chu lee go wa',	<i>Sparrow Hawk.</i>
Puz zi la nee',	<i>Parakeet.</i>
Kas e pa ko',	<i>Loggerhead Shrike.</i>
Ossi ha wa',	<i>Common Crow.</i>
Wat a la',	<i>Whooping Crane.</i>
Piume wa',	<i>Turkey.</i>
So lay',	<i>Black Vulture.</i>
Chu lee',	<i>Turkey Vulture.</i>
Fo tihow',	<i>Black Duck.</i>
Fo sit ka',	<i>White Heron.</i>
Fo sit ka chee',	<i>Snowy Heron.</i>
Tee chee',	<i>Brown-headed Nuthatch.</i>

Huskee Hadki.

Editor of O. & O.:

I have intended writing you for some time, but the evenings in camp are so noisy and we are all having such a boisterous time that one hardly knows which end he is standing on. I came direct to Portland, Oregon, and stopped there a week, then came to Farmington and took mule teams to our camp on the west side of the mountains. We are on the east side now, in a secluded valley called Congar Springs. Plenty of game here. We see Deer every day, Cougar, and Bear occasionally. We, Bob Cook and I, followed up an immense trail of a big buck we have seen around here, but we did not get him, but will try again soon. Next month is the dandy month for shooting here. We saw four deer near camp yesterday. We changed camps last week; snowed all day, and we did not get up the last two tents until after 7 P.M., and then had to shovel out the snow. Immense forest here below timber line. I will send you notes soon and will write again. I would be greatly

pleased if you would send me the last two or three months of the O. & O., I have not seen any since I was in Boston that day before I came out. I expect to make some great finds in the spring. Raptore in abundance out here, Oregon Juncos, Kinglets, Grouse, Prairie Hens, Cranes, Eagles, Warblers, big Woodpeckers, Pileated and some I don't know. At the lake three miles from us Ducks, Geese, Pelicans breed. I must close, as Tom is tuning up his banjo. We have had cold weather here and snow besides. With best wishes, I am, yours sincerely,

F. W. A.

A Dream.

He sat in his study smoking,
And scratched his old bald head;
On pet themes fondly thinking,
While the rest were all in bed.

The clock it ticked quite loudly,
And the light it grew more dim,
His mind it wandered lightly,
As was the habit with him.

A quiet stole o'er his feelings,
And his head on his bosom drooped;
When, like a flash, with brain reeling,
He shook, before monsters grouped.

There, crowded right around him,
Were forms of fantastic shape;
They glowered and glared upon him,
In a way that made him quake.

One, more fearful than others,
With eyes of dazzling hue,
Seemed to be a leader
Of the terrible ghostly crew.

"Am I mad?" he cried out faintly,
"Surely my account must be given,
Such forms are not known on earth,
And they never could come from heaven."

"Oh speak out, ye demons before me,
And make what demand ye will,
And I pledge you, the word of mortal,
That with life I will struggle to fill."

Then the forms they moved quickly,
And around him they seemed to fly,
While he who was the leader
Uttered a loud and angry cry.

"Your work is a joke on nature,
As can be seen by every eye,
We have taken counsel together,
And determined that you should die.

"You have daily, hauled and mauled us,
And twisted our forms askew,
And now the birds you've been stulting
Will proceed to try it on you."

With a yell and a jump he started,
Kicked over the table and chair,
Then desperately sprang to his feet
And vacantly round did stare.

It was with quite an effort
He refrained from uttering howls,
When his eye caught the key to his vision,
OLD BOURBON and his case of STUFFED OWLS.

XX.

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—AND—

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No. 2.

The Summer Birds of Buncombe County, North Carolina.

Botaurus lentiginosus. American Bittern. Have taken specimens every month from April until October. Have never found it breeding.

Ardea herodias. Great Blue Heron. Have never found their nests, but I think they breed here, as the young are common in June and July along the French Broad River. It goes by the name of Blue Crane.

Ardea caerulea. Little Blue Heron. The young are very common in June and July in the white plumage. It is called the White Crane.

Ardea virescens. Green Heron. Breeds in pairs, generally erecting their domicile in a cluster of thick pines.

Rallus elegans. King Rail. Specimen shot and another one seen on July 8.

Porzana jamaicensis. Black Rail. Summer visitor. From what I can learn from the farmers this bird is frequently seen in their meadows. A nest and four eggs was brought to me about the middle of July, 1887. It was found in a small swamp, located near a heavy growth of timber. It was placed in a large bunch of grass, and was composed of rushes and coarse grasses, and was about four inches above the water. The bird was flushed from the nest, but would not fly more than a few feet at a time.

Philohela minor. American Woodcock. Resident, and common; but oftener heard than seen. Breeds early in April.

Actitis macularia. Spotted Sandpiper. Rare in summer. Have never found their nests.

Egialitis vocifera. Killdeer. Seen occasionally in summer. Breeds.

Colinus virginianus. Bob-white. An abundant resident. Two and three broods are raised each season. I have frequently caught young birds as late as the fifteenth of October.

Both male and female assist in incubation; in fact, I believe the male does the most of it, as I have found them on the nest a great deal more than I have the female.

Bonasa umbellus. Ruffed Grouse. Rare in this vicinity, but common on the higher mountains. I found it very abundant among the firs on Black Mountain last September. Breeds from two thousand feet upward, and usually in May.

Meleagris gallopavo. Wild Turkey. Common, and resident on the mountains. Birds shot on the Black and Craggy Mountains seem to be larger and darker colored than those found in the valleys. They breed from the first of May until the middle of June. Eight to twelve eggs are the usual number.

Zenaidura macroura. Mourning Dove. Resident, and common. Breeds anywhere. I have found their nests fully fifty feet up in a tree, and again not twelve inches from the ground.

Cathartes aura. Turkey Vulture. Resident, and abundant. Breeds in May and June, usually in a cliff of rocks. This bird gets the name of being very filthy while breeding. Such has not been my experience. Have examined a number of nests and have always found them very clean. However, such may not be the case when the nests contain young birds, as I have never had the pleasure of examining them then.

Cathartes atrata. Black Vulture. Very irregular and uncertain in its occurrence. Sometimes seen in large flocks and again not seen for months. Have never found their nests.

Elanoides forficatus. Swallow-tailed Kite. Seen occasionally in August.

Circus hudsonius. Marsh Hawk. Seen occasionally along the valley of the French Broad River. Have never heard of their nesting here.

Accipiter velox. Sharp-shinned Hawk. Resident, but rather rare. A few breed here, usually appropriating an old crow's nest. Four

eggs are the usual number. Called Sparrow Hawk. Breeds from the fifteenth of May until the twentieth of June.

Accipiter cooperi. Cooper's Hawk. Resident, and common. Breeds usually early in May. They are very wild and wary, building their nests in the tops of the tallest trees. Called Blue-tailed Hen Hawk.

Buteo borealis. Red-tailed Hawk. Common, and resident, breeding from the fifteenth of March until the end of April. Have never found over two eggs in a nest. Called Mountain Hawk.

Buteo latissimus. Broad-winged Hawk. Summer visitor; common. Arrive here about the end of March, and commence to build their nests usually the fifteenth of April. Three eggs are the usual number, although I have found four, and sometimes only two are found. The average height of their nests found in this vicinity has been forty feet; twenty-five feet has been the lowest, and sixty feet the highest. This is one of the most unsuspecting of hawks, and is shot on every occasion by the farmers, as all the depredation done in the poultry yard by Cooper's Hawk is laid at its door.

Aquila chrysaetos. Golden Eagle. Seen occasionally on the higher mountains. While camping on Black Mountain September 12, 1886, a splendid bird of this species was observed perched on the top of a dead tree, within a few yards of our camp. My companion seized a Remington, and fired, but unfortunately the sight of an eagle was too much for his nerves, or else his conscience must have pricked him for shooting on Sunday. At any rate the bullet went wide of the mark, and away went our eagle. Of course, it was the rifle's fault.

Haliaeetus leucocephalus. Bald Eagle. Resident; rare. It formerly nested on several of the mountains near here, and I have examined quite a number of old nests. The last record I can find is, that a nest and two young birds were found about twenty miles from here, in Henderson County, and brought to Asheville in June, 1886.

Falco peregrinus anatum. Duck Hawk. Seen occasionally during the summer months. The only one seen this year was near Asheville on June 10th, and it will be some time before I forget the scrape I got into over it. I had stopped in front of a house, and had been watching it for nearly half an hour, when the bird suddenly swooped down and carried off a chicken. Out came the lady of the house in a great rage, and, as the hawk was out of sight

by that time, she turned the full force of her wrath on me, and demanded if I had nothing else to do but stand there and watch that "Hen Hawk" carry off her chickens. I tried to get out of it the best way I could, and told her that it was a rare hawk that I had been watching, and that it was not a Chicken Hawk, but a Duck Hawk. This only made things worse, for she screamed out at the top of her voice, "Do you call that a Duck Hawk you fool, you? Do you call that a duck it carried off?" That was the last time that I have stopped at that house, and am always in a hurry when I pass there.

Falco sparverius. Sparrow Hawk. Resident; common. Breeds in April and May. Four or five eggs are the usual number.

Pandion haliaetus carolinensis. American Osprey. Seen occasionally during the summer, but have never found them breeding.

Syrnium nebulosum. Barred Owl. Resident; rare. Breeds here, but I never found but one nest. It was in a large hollow tree, and contained three young birds.

Megascops asio. Screech Owl. Resident; common. Breeds in April.

Bubo virginianus. Great Horned Owl. Resident; common. Breeds from the fifteenth of January until the end of February. Its nests are very hard to find, as there are so many hollow trees in this locality.

Coccyzus americanus. Yellow-billed Cuckoo. Summer visitor; abundant. Breeds from the middle of May until June and July. Strange as it may seem this bird was very rare until the past two years. Since then it has been one of our most common summer birds. The average height of their nests, which I have found during the past two years, has been eight feet.

Coccyzus erythrophthalmus. Black-billed Cuckoo. Summer visitor; common. The same may be said about it as the Yellow-billed species, though it has not appeared in such numbers. One nest found last year contained one fresh egg, one egg nearly ready to hatch, and a good sized young bird.

Ceryle alcyon. Belted Kingfisher. Rare; summer visitor. Breeds in May.

Dryobates villosus. Hairy Woodpecker. Seen occasionally on the higher mountains. Breeds on Craggy Mountain.

Dryobates villosus auduboni. Southern Hairy Woodpecker. Resident; common on the lower mountains. Breeds in April.

Dryobates pubescens. Downy Woodpecker. Resident; common. Breeds later in the season than *D. villosus*.

Sphyrapicus varius. Yellow-bellied Sapsucker. Resident; common amongst the heavy timber. Breeds in April.

Ceophlaeus pileatus. Pileated Woodpecker. Common in the mountains. Very wild and wary. Breeds in April, but the collector soon finds out that finding a nest and obtaining the eggs are two very different things, at least such has been my experience, and I have only discovered one nest from which I could get the eggs, and I might add that I nearly broke my neck over them.

Melanerpes erythrocephalus. Red-headed Woodpecker. Resident; common. Breeds in May.

Melanerpes carolinus. Red-bellied Woodpecker. Resident; common. Breeds on Craggy Mountain; nesting in May. I found them in the valleys in winter.

Colaptes auratus. Flicker. Resident; common. Breeds from the end of May until the end of June. From one nest I took twelve eggs during the past season.

Antrostomus vociferus. Whip-poor-Will. Summer visitor; common in suitable localities. It seems to prefer a growth of mixed timber. It arrives here about the first of April. Have taken their eggs as early as the twenty-third of that month, but that is an exception, as about the fifteenth of May is their usual time to breed. Their eggs are generally placed in a clear place in the woods. Two eggs, sometimes only one.

Chordeiles virginianus. Night Hawk. Summer resident. Common, but not as numerous as the Whip-poor-will. Very abundant in July and August. Breeds at the same time as the former.

Chaetura pelasgica. Chimney Swift. Summer visitor; common. Breeds in the chimney, but I think it also breeds in hollow trees, as I have frequently observed them passing in and out of holes in the trees, although I never could find their eggs in such places. They arrive early in April and stay until the middle of October.

Trochilus columbris. Ruby-throated Hummer. Summer visitor; very common. Arrives usually about the twentieth of April, and begins to breed about May 15th. Nests are very easily found by watching the bird. I think the males depart for the south in July, as they are rarely seen after that date, although the females and young fairly swarm from then until the middle of September. Ranges over the tops of the highest mountains.

Tyrannus tyrannus. King Bird. Summer resident; common. It has always been a mystery to me why this bird was called King Bird, for I have seen the little Ruby-throated Hummer in full chase of him often. Somehow I never thought much of this bird, and they always seem to me to be trying to show off all the time, and to put on airs.

Myiarchus crinitus. Crested Flycatcher. Summer visitor; common. Arrives generally the fourth or fifth of April. Breeds rather later than the King Bird. This species has always been a favorite of mine, and his jolly whistle does not seem to have anything stuck up about it, like the predecessor.

Sayornis phaeo. Phoebe or Pewee. Resident; common. Returns each year to its former nesting place, no matter what the difficulties are. No matter where you go, you will always find this little bird there, waiting to give you a welcome. I have found them at the highest point of the Black Mountains.

Contopus borealis. Olive-sided Flycatcher. Rare in summer. Have seen but a few specimens; one on Craggy Mountain, and one was shot about half way up the Black Mountain.

Contopus virens. Wood Pewee. Summer visitor; very common. Arrives very late in the season. Breeds in June.

Empidonax acadicus. Acadian Flycatcher. Summer visitor; abundant. Breeds in May and June. Have never found over three eggs in a nest.

Empidonax minimus. Least Flycatcher. Summer visitor; rare. I have seen but one pair, and found their nest. It was placed in the fork of a Persimmon tree, twenty feet from the ground, and was composed of fibres, etc., neatly put together. It contained four fresh eggs.

Cyanocitta cristata. Blue Jay. Resident; common. A noisy, restless fellow. Breeds in April.

Corvus corax sinuatus. American Raven. A few pairs are seen each season on the mountains. Have never found their nests, but I think they must breed during the latter part of March, as the young are on the wing early in May. I once thought I was fortunate, for a mountaineer living in the Black Mountains informed me that eagles, hawks, owls and ravens nested abundantly in the cliffs near where he lived. Of course I engaged his services at once for the coming season, and when the time came around I was loaded down with cartridges and empty boxes to hold the eggs I was to get. I started, but not an egg did I

obtain, and the old saying, that "there's many a slip between the cup and the lip," came painfully true.

Corvus americanus. American Crow. Resident; abundant. Shot on every occasion by the farmers, and their nest destroyed. Still *Corvus* seems to hold his own, and rapidly increases. I can't say that I have much sympathy for him, either, for I have frequently caught him in the act of eating young birds and eggs.

Agelaius phoeniceus. Red-winged Blackbird. Nearly a resident. Common along the French Broad River.

Sturnella magna. Meadow Lark. Rare in summer. Have observed but one pair during the last five years. They were nesting in a small meadow. The nest contained four eggs.

Icterus spurius. Orchard Oriole. Summer visitor; rather rare. Breeds, returning each year to its old nesting site.

Icterus galbula. Baltimore Oriole. Summer visitor. Common in Asheville and vicinity. A few pairs breed in Weaverville.

Quiscalus quiscula. Purple Grackle. I observed what I took to be young birds of this species on June 5th, 1888, near Asheville.

Loxia curvirostris minor. American Crossbill. Resident. I found them at Black Mountain in summer.

Spinus tristis. American Goldfinch. Resident; abundant. Breeds in July and August.

Spinus pinus. Pine Siskin. Resident; common on Black Mountains in summer.

Pooecetes gramineus. Vesper Sparrow. Resident; common. Usually found on high pasture land. Commences to breed the fifteenth of April.

Anomodramus savannarum passerinus. Grasshopper Sparrow. Yellow-winged Sparrow. Summer visitor; rather rare. A friend was telling me about a peculiar sparrow's nest that he had found. Thinking it might be of this species, I requested him to take me to it. On going there, I found that the bird had deserted the nest, but I had no doubt that it belonged to the Yellow-wing. Two weeks later I found another nest near where the first one had been built, and secured the bird.

Spizella socialis. Chipping Sparrow. Very common. On June 1st I counted eight tenanted nests placed in the trees along our mill race, all within the distance of a stone's throw.

Spizella pusilla. Field Sparrow. Resident; common. Breeds from the first of May until August.

Junco hyemalis carolinensis. Carolina Junco.

Resident; abundant on the higher mountains in summer. Breeds from early April until August. Have found nests under logs, rocks, sometimes in a bush, and frequently the nest is placed on the vertical side of a cliff, after the manner of a Pewee's. A great favorite of mine, as there is something in its clear, metallic voice that sounds very sweet.

Pipilo erythrophthalmus. Towhee. Resident; common. Breeds from the middle of April until the end of June.

Cardinalis cardinalis. Cardinal. Resident; common. Breeds from the end of May until August, and I once found a nest on the twenty-fifth of September.

Habia fuscicauda. Rose-breasted Grosbeak. Summer visitor. Common from 4,000 feet upwards. Breeds in May. Have found four nests, one in a small bush, forty inches from the ground; one in a Haw tree, twenty feet up, and the other two were placed in saplings, one seven feet and one nine feet up. One nest contained two eggs, the second, third and the other two nests had four each. Incubation had commenced in all.

Guiraca caerulea. Blue Grosbeak. One male seen June 10th, 1888.

Passerina cyanea. Indigo Bunting. Summer visitor; common. The latest breeder we have. Ranges over 6,000 feet on the mountains.

Piranga erythromelas. Scarlet Tanager. Summer visitor; rather common. It frequents the lower mountains, being rarely found in the valleys. Breeds in May.

Piranga rubra. Summer Tanager. Common in the woodlands of the lower valleys. Breeds later in the season than *P. erythromelas*.

Progne subis. Purple Martin. Common in the towns. Abundant near Asheville.

Clicicola riparia. Bank Swallow. Summer visitor; rare.

Stelgidopteryx serripennis. Rough-winged Swallow. Summer visitor; rather common.

Anguis cedrorum. Cedar Waxwing. Resident; common. Breeds in June.

Vireo olivaceus. Red-eyed Vireo. Summer visitor; common in this locality. Breeds abundantly in June. Average height of nests is seven feet.

Vireo gilvus. Warbling Vireo. Summer visitor; rather rare. Breeds in May.

Vireo flavifrons. Yellow-throated Vireo. Summer visitor; uncommon. Usually found along the streams. Breeds in May and June.

Vireo solitarius altilolu. Mountain Solitary Vireo. Nearly if not a resident throughout the whole year. Two broods are raised each season.

Nests found here are usually covered on the outside with grayish lichens. In song it somewhat resembles that of the Red-eyed Vireo, but its notes are much fuller and richer. A peculiar habit of this bird is to remain motionless when disturbed. I have seen them sit quiet for half an hour at a time. This used to bother me a great deal, for I would always think the bird had flown away, and would be in a great haste to reach the place where another was singing, only to hear the same one again, near where I had just left. But I soon found out its habits. Their nests are built much higher from the ground than any other Vireo that breeds here.

Vireo noveboracensis. White-eyed Vireo. Summer visitor. Very common along the French Broad River near Asheville. Nests later in the season than the Red-eyed Vireo.

Mniotilla varia. Black and White Warbler. Summer visitor; common in hard wood timber up to 5,000 feet.

Helmintherus vermivorus. Worm-eating Warbler. Summer visitor; rare. Have found but one nest, July 1st, 1886. It was placed on a steep hillside, and contained four young birds, nearly ready to fly. They range 4,000 feet up.

Helminthophila chrysopetra. Golden-winged Warbler. Summer visitor; rather rare. Breeds in June. Range about 3,500 feet up. Have found but one nest.

Helminthophila pinus. Blue-winged Warbler. Summer visitor; not common. Breeds.

Compsothlypis americana. Parula Warbler. Summer visitor; common. Breeds in March and June. Average height of nests has been twenty-five feet, but I have found them as low as five feet and again as high as sixty. Arrives here about the first of April and stays until the end of October. Four eggs are the usual number.

Dendroica aestiva. Yellow Warbler. Summer visitor; very common. Up to 3,500 feet. Departs for the south in August. Breeds in May and June.

Dendroica pennsylvanica. Chestnut-sided Warbler. Summer visitor; uncommon. I have found but one nest: May 25th, 1887, on Craggy Mountain.

Dendroica blackburniae. Blackburnian Warbler. Summer visitor; rare. Have taken the young, but could never find their eggs. Have never observed them higher than 3,500 feet.

Dendroica dominica. Yellow-throated Warbler. Summer visitor; more common than the preceding. Have found several nests containing young birds. Ranges about 2,500 feet up. Usually nests in a pine tree.

Dendroica caeruleocincta. Black-throated Warbler. Summer visitor; common on Black Mountain. I found it as low as 3,000 feet. Strange as it may seem, I have never observed it on Craggy Mountain. Breeds in May, as I found the young birds very common on June 24th, 1887. Found one nest with young birds nearly ready to fly on the same date.

Dendroica virens. Black-throated Green Warbler. I found this Warbler very abundant while going up the north side of Mount Mitchell on June 23d, 1887. The first seen must have been as low as 3,500 feet. It was some time before I could identify this Warbler, as it frequented the tops of the tallest trees, and I had to fire several shots before I secured a specimen. I found the young birds very plentiful on the edge of the firs on Black Mountain.

Dendroica vigorsii. Pine Warbler. Resident; rather common. Frequents the old pine growth fields. Breeds early in May.

Seiurus aurocapillus. Oven Bird. Summer visitor; very common in woodland. Ranges up to 6,000 feet on Craggy Mountain. Breeds in May and June.

Seiurus noveboracensis. Water Thrush. Rare at all times. Specimens taken early in August, 1886.

Seiurus motacilla. Louisiana Water Thrush. Nearly every small stream has its pair of birds. Found them nearly at the tops of the Black Mountains. A pair have nested each year in succession for the last five years within fifty feet of where I work every day. How many times I have hunted in vain for their nest I am ashamed to say. At any rate, I have had to give it up, so far, though it seemed to me that I must have moved every leaf on the hillside.

Geothlypis formosa. Kentucky Warbler. Common on the lower mountains. Have never found it over 4,000 feet up. The only nest I ever found was on June 15th, 1886. It was placed in a small open glade on the side of a steep mountain, and contained four fresh eggs. The nest was composed chiefly of strips of grape-vine bark, and lined with fine black rootlets. It was eight inches from the ground.

Geothlypis trichas. Maryland Yellow-throat. Very common in the meadows and along the smaller streams. Breeds in May and June.

Icteria virens. Yellow-breasted Chat. Nearly every briar patch has its pair. Breeds in May and June. Arrives early in April, and departs in August. Called Mockingbird here.

Sylvania mitrata. Hooded Warbler. Common along the streams in the woodland. Arrives the first of April. Breeds from the

tenth of May until the end of June. Average height of nests has been four feet. Have never found over four eggs in a nest.

Syleania canadensis. Canadian Warbler. Very common on the Black Mountains. Ranges fully 6,000 feet up. Have never taken their eggs, but have found several nests with young birds.

Setophaga ruticilla. American Redstart. Summer visitor; rare. Breeds sparingly on the French Broad River.

Minus polyglottus. Mocking-Bird. Summer visitor; not common. Have seen eight or ten pairs in Asheville, and one pair nested in Weaverville.

Galeoscoptes catolinensis. Catbird. Very common; arrives here usually by the middle of April and stays until October. Range over 6,000 feet.

Harporrynchus rufus. Brown Thrasher. Summer visitor; common. Arrives here generally on the third or fourth of April, nesting in that month. Called Mocking-bird by the farmers. A great many are shot each spring by the farmers who say that they pull up their corn. Catbirds and Towhees also share the same fate.

Thryothorus bewickii. Bewick's Wren. Common in the mountains, also in the towns. I found it abundant on Craggy Mountain where it ranges over the highest points. Have never found it as high on the Black Mountain. Arrives usually on fifteenth or sixteenth of March. Nests early in April. Builds under logs, in hollow stumps and barns and old houses.

Thryothorus ludovicianus. Carolina Wren. Resident, very common up to 400 feet. Nests from April until July, sometimes later than that, as I once flushed a bird from her nest on the ninth of October. Where all the young that are hatched go, I could never tell, for the birds are very prolific. A pair have nested in our barn the past three summers. In 1886 they raised fifteen young ones, seventeen in 1887, and sixteen in 1888, but still there are only the one pair there.

Troglodytes hiemalis. Winter Wren. Resident, on Black Mountains in summer.

Certhia familiaris americana. Brown Creeper. Resident, and common, on the higher mountains in summer. Breeds usually in May, nesting in knot holes and natural cavities. Five and six eggs are the usual number found in this locality.

Sitta carolinensis. White-breasted Nuthatch. Resident; very common. Nests early in April. Range 6,000 feet on Craggy Moun-

tains, but does not range so high on the Black Mountains.

Sitta caudensis. Red-breasted Nut-hatch Resident; common on Black Mountains. Have found but two nests of this bird, one in 1886 on the 10th of May and the other on the 15th of May, 1885. The first was in a dead stub 20 feet up, and the other was in a stump six feet up. Each nest contained four fresh eggs. They were much more heavily marked than those of the White-breasted Nuthatch.

Parus bicolor. Tufted Titmouse. Resident; common in this vicinity. This is one of my favorites and I have spent a great deal of time studying their habits, and have found out a great many curions things about them. Usually about the middle of April they begin to hunt for a nesting site, and sometimes they are very hard to please. When the tree has been chosen the female begins at once to clean it out and to gather material for the nest. Leaves, moss and hair form the main part of the nest. The female does all the building, while the male provides the food. A very peculiar trait they have is to carry nesting material to the nest after the female has been incubating. I have observed them on several occasions carrying moss and hair into their nests and on examination I found that incubation was well along.

If their eggs are disturbed they will at once remove them. The eggs are always neatly covered up, and they are quite skilful in the art of hiding them. Often have I had a hard climb up some old giant of the forest only to find a few acorn shells in the bottom of the cavity, nor could I find the eggs even when I knew they were near.

The usual number of eggs found in a set has been five and six although sometimes seven and eight are found. The average height taking from one hundred nests has been nearly thirty-five feet. The lowest was five feet up and the highest sixty-seven feet.

Parus atricapillus. Chickadee. Resident, common on Black Mountains above 5,000 feet.

Parus carolinensis. Carolina Chickadee. Resident; abundant up to 6,000 feet on Craggy Mountain. I have never found it above the line of firs on the Black Monntain. Breeds early in May, six and seven eggs are the usual number.

Regulus satrapa. Golden-crowned Kinglet. Resident; common. Black Mountains in summer. I found young just out of the nest on June 24th, 1887.

Polioptila caerulea. Blue-gray Gnatcatcher. Summer visitor; common. Nest from the fifteenth of May until the end of June. Arrives usually the first or second of April.

Turdus mustelinus. Wood Thrush. Summer visitor; common. Arrives early in April. Nests usually the 1st or 2d week in May. Range about 5,000 feet up.

Turdus fuscescens. Wilson's Thrush. Summer visitor; common above 3,500 feet. Nests early in May.

Turdus aliciae bicknelli. Bicknell's Thrush. Specimen shot at Black Mountain in August 1885 or 1886; am not sure as I can not find the date.

Merula migratoria. American Robin. Resident; breeds abundantly on the higher mountains.

Sialia sialis. Bluebird. Resident; abundant. Range 6,000 feet, on Craggy Mountain. Nests as early as the fifteenth of March.

John S. Cairns.

A Series of Eggs of Bendire's Thrasher.

The eggs of Bendire's Thrasher (*Harporrynchus bendirei*) are very odd in their coloring, and the only species whose eggs they resemble is the St. Lucas Thrasher (*H. ciuereus*). It is believed that the present series, now before me, exhibits all the variations in size and markings to which they are subject:

Set I. June 4th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca, on the Rillito, near Fort Lowell. Three eggs, fresh, greenish-white, spotted with eern drab; 1.03 x .75; 1.00 x .76; 1.02 x .75.

Set II. June 4th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca, lined with fibrous roots and wool. Three eggs, fresh, greenish-white, marked all over with very faint spots of eern drab; 1.04 x .74; 1.03 x .75; 1.03 x .76.

Set III. May 29th, 1887. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, east of Tucson. Three eggs, greenish-white, marked with longitudinal spots of eern drab; 1.01 x .73; 1.04 x .71; 1.03 x .72.

Set IV. March 27th, 1886. Pima Indian Agency, Pinal County, Arizona. Collected for R. S. Wheeler. Nest a layer of twigs, etc., lined with coarse grasses, placed in a cholla cactus, about four feet from the ground. Three eggs, fresh, greenish-white, marked all over with longitudinal spots of eern drab; 1.01 x .76; .98 x .71; .98 x .69.

Set V. June 1st, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest taken from estecila on the Rillito, three miles north of Tucson. Three eggs, incubation slight, greenish-white, spotted with eern drab. On one of the eggs the markings are all over the surface, but on the other two they are principally grouped near the larger ends: 1.04 x .74; 1.03 x .75; .98 x .73.

Set VI. April 5th, 1885. Near Tucson, Arizona. Collected by Herbert Brown. Nest in low bushy cholla near the Fort Lowell road, about one mile east of Tucson. Three eggs, greenish-white, spotted with eern drab: .95 x .74; .96 x .75; .99 x .74.

Set VII. April 3d, 1886. Pima Indian Agency, Pinal County, Arizona. Collected by Roswell S. Wheeler. Nest a large platform of twigs, lined with grasses, placed in a thicket, about four feet from the ground. Three eggs, fresh, greenish-white, marked with longitudinal spots of eern drab: 1.13 x .77; 1.08 x .78; 1.06 x .79.

Set VIII. June 7th, 1872. Tucson, Arizona. This set possesses peculiar interest as it was collected by Captain Charles E. Bendire, U. S. A., who discovered this Thrasher, and after whom it was named by Dr. Cones. I copy from the data accompanying the set, which is in Captain Bendire's handwriting: "Nest placed in a thick mesquite bush, about two and a half feet from the ground, near Rillito Creek, Tucson, Arizona, June 7th, 1872. The nest resembles those of the balance of *Harporrynchi*, and is large for the size of the bird. The egg of *H. ciuereus* (Xantus) from Cape St. Lucas resembles these. Three eggs are the usual number found in a nest. This set has been sat on for a week or ten days. Found by myself." Greenish-white, marked with small longitudinal spots of eern drab: .99 x .72; 1.03 x .73; 1.03 x .73.

Set IX. March 25th, 1888. On Mesa east of Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca cholla, four feet from ground. External diameter of top seven inches, depth four inches. Cavity, top three and a half inches, bottom two and a half inches, depth two and a half inches. Three eggs, incubation partial. Greenish-white, spotted with eern drab, and a few traces of lavender-gray: .97 x .73; .92 x .70; .93 x .71.

Set X. April 22d, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca cholla three and a half feet above the ground. Made of twigs, and lined with dried grass. Outside, top five and three quarter inches.

depth five inches. Inside, top three and a half inches, depth three and a quarter inches. Bottom rounded. Four eggs, incubation slight. Greenish-white, spotted with ecrû drab and fawn color. The spots are much closer and heavier near the larger ends: 1.05 x .74; 1.07 x .74; 1.06 x .74; 1.02 x .73.

Set XI. April 2d, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in top of cholla, two feet above the ground. Made of dried grass, lined with bark. Four eggs, fresh, greenish-white, spotted with ecrû drab: 1.06 x .76; 1.04 x .75; 1.07 x .76; 1.07 x .76.

Set XII. May 12th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest placed in Tasaca cholla, forty inches from ground. Diameter across top seven inches, depth six inches. Top of cavity three and three-quarter inches, bottom three inches. Lined with grass, hair and wool. Four eggs, fresh, greenish-white, marked with large spots (for this species). The markings are of ecrû drab and fawn color and are much further apart than usual on eggs of this bird: 1.04 x .77; 1.02 x .76; 1.03 x .76; 1.02 x .76.

Set XIII. June 4th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca, on the north side of Rillito, four miles from Fort Lowell. Made of sticks, lined with grass. Three eggs, incubation partial. Greenish-white, spotted with lavender-gray, ecrû drab, and fawn color. Two of the eggs are much more heavily marked than the third: 1.05 x .78; 1.05 x .77; 1.07 x .76.

Set XIV. March 25th, 1888. Tucson, Arizona. Nest in Tasaca, three and a half feet from the ground. Made of sticks, lined with grass and hair. Two eggs, incubation partial. Greenish-white, spotted with ecrû drab and fawn color: 1.02 x .76; .98 x .73.

Set XV. May 27th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca, on plain east of Tucson. (This nest is now in the Smithsonian Institution, Washington, D.C., to which it was presented by Mr. Brown.) Four eggs, incubation slight. Greenish-white, spotted (almost at the larger ends) with fawn color and lavender-gray. The ground color of this set is of a much deeper tint of greenish white than that of any other eggs in the series: .96 x .75; .96 x .76; .94 x .78; .92 x .76 (a short, blunt, set).

Set XVI. April 20th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest taken from the south side of cholla. Better made than common, the twigs used in its construction being of uniform length. Four eggs,

incubation light. Greenish-white (a much more decided greenish than common for this species), spotted with fawn color and lavender-gray: 1.07 x .78; 1.09 x .78; 1.05 x .77; 1.09 x .77. (Next to set XV these eggs have the greenest ground color of any in the series.)

Set XVII. May 21st, 1887. Near Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca, about seven miles north of Tucson. Poorly constructed. Three eggs, greenish-white, spotted with ecrû drab: 1.03 x .78; 1.04 x .78; 1.06 x .79.

Set XVIII. March 18th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca. Outside made of Jediondia twigs, lined with feathers, horse hair, and grass. Three eggs, fresh, greenish-white, spotted with ecrû drab, fawn color, and lavender-gray: 1.02 x .76; 1.01 x .76; 1.03 x .75.

Set XIX. March 18th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca; made of dead thorn twigs, lined with grass, etc. Three eggs, incubation light. Greenish-white, spotted with lavender-gray, ecrû drab, and fawn color: 1.06 x .77; 1.05 x .77; 1.06 x .79.

Set XX. April 10th, 1887. Tucson, Arizona. Collected by Herbert Brown. Nest in red cholla. Made of coarse thorn twigs and lined with grass, and one hawk's feather in the bottom. Three eggs, partly incubated. Greenish-white, marked with large longitudinal spots of lavender-gray and fawn color. There is more lavender-gray on this set of eggs than any on others of the series, and the spots are larger: 1.01 x .74; 1.01 x .74; .99 x .72.

Set XXI. March 27th, 1886. Pima Indian Agency, Pinal County, Arizona. Collected for R. S. Wheeler. Nest a mass of twigs forming a platform in a cholla cactus, about four feet from the ground, and lined with grasses, etc. Two eggs, greenish-white, spotted with lavender-gray and fawn color: .97 x .75; 1.02 x .74.

Set XXII. April 2d, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla four feet from the ground. Made of dead twigs and dried grass. External diameter, top six inches, depth five inches. Inside cavity, top three and a half inches, depth two and a half inches. Three eggs, greenish-white, heavily spotted (for this species) with lavender-gray, fawn color and russet: 1.07 x .76; 1.06 x .75; 1.06 x .75.

Set XXIII. April 20th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest on limb of mesquite tree, about eight feet from the ground. Made of thorn twigs lined with

weeds. Four eggs, fresh, greenish-white, spotted with lavender-gray, earth drab, and fawn color: 1.06 x .78; 1.08 x .78; .98 x .75; 1.04 x .76.

Set XXIV. May 12, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest in Tasaca, made of dead twigs, and lined with shredded baling rope. Outside, top six and a half inches, depth four inches. Inside, top three and a half inches; bottom rounded, depth two and a quarter inches. Three eggs, greenish-white, spotted with lavender-gray, and russet. The markings are small longitudinal spots, but very sharply defined: 1.11 x .79; 1.05 x .78; 1.06 x .77.

Set XXV. March 16th, 1886. Pima Indian Agency, Pinal County, Arizona. Collected by Roswell S. Wheeler. Nest of twigs and grasses, lined with hair, situated in a cholla cactus. Two eggs, greenish-white, but the ground color is almost wholly obscured with the markings, which are of lavender-gray and fawn color: 1.11 x .75; 1.06 x .75.

Set XXVI. May 12th, 1888. Tucson, Arizona. Collected by Herbert Brown. Nest fragile in construction. Made of weeds and lined with fibrous bark. Four eggs, incubation light. Greenish-white, very heavily marked with longitudinal spots of lavender-gray and fawn color. On some of the eggs the markings are very peculiar, the lines almost appearing as if they were drawn with a pen: .97 x .74; .99 x .74; .99 x .71; 1.03 x .72.

Set XXVII. March 9th, 1886. Saeaton, Pinal County, Arizona. Collected for R. S. Wheeler. Nest in a pilo verde tree about six feet from the ground. Composed of twigs, lined with grass and hair. Three eggs, fresh, greenish-white, spotted (so heavily as to obscure the ground color) with fawn color: 1.10 x .75; 1.08 x .71; 1.07 x .73.

Set XXVIII. May 15th, 1887. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, three feet from the ground. Made of coarse twigs and lined with dried grass. Three eggs, incubation slight. Greenish-white, heavily spotted, principally at the larger ends, with lavender-gray, and fawn color: .98 x .75; 1.00 x .77; .97 x .78.

Set XXIX. April 10th, 1887. Tucson, Arizona. Collected by Herbert Brown. Nest in cholla, two feet from the ground. Made of Jediondia twigs, and lined with fibrous bark of dead cholla. Three eggs, fresh, greenish-white, heavily spotted with lavender-gray and russet: 1.06 x .78; 1.04 x .78; 1.03 x .78.

J. P. N.

English Sparrow.

That little enemy of eastern bird life, the English sparrow, has made its appearance in the Zenith City, a single pair surviving an unusually low temperature, even for Duluth, last winter, and this winter finds a small colony contentedly domiciled in the cornices of a business block, attesting to the hardiness of the little adventurers, who must have passed through nearly 100 miles of uninhabited wilderness before reaching here, although the trip was doubtless made via rail in grain cars where they do considerable foraging after seeds, etc., and are often accidentally entrapped and transported.

It will be interesting to note from year to year what effect this vigorous climate has upon the little colony.

Frank S. Daggett,

Duluth, Minn.

Golden Eagle in Montana.

A Golden Eagle (*Aquila chrysaetos* [Linn.]) was shot here on Dec. 8th by one of our own Indian scouts. This bird had captured and killed a good sized Black-tail Deer, and was shot while sitting upon its body, although unable to "fly to its eyrie!" with its heavy prey. I think this case comes as near the wonderful stories of this bird's powers as lies within the bounds of truth. The skin was ruined in skinning, the scout laying it upon its back and slashing the skin off in much the way he would that of the deer. The entire skin was thickly lined with fat, showing that it had not wanted for food this winter. Considerable discussion took place in the post trader's store as to the "kind of eagle," but as it was feathered to the toes there was no doubt in the mind of an ornithologist.

C. F. Morrison.

Addition to the Bristol County List.

A gentleman residing at Taunton, Mass., shot in the outskirts of the city an Owl, which from his description conforms exactly to that of the Great Gray Owl (*Ula cinerea*) in size, shape and coloration. It is impossible to mistake the Great Gray for the Barred or Great Horned Owl, as this gentleman has shot a number of each of the last two. Unfortunately the owl was not considered rare and he did not have it preserved.

John C. Cahoon.

The Food Habits of the Shrikes.

The *Lanius borealis* is the true bird of the north wind. With the thermometer two figures below zero I have found him on the Illinois prairies perched on the topmost twig of some low tree facing the keen north wind, the very picture of daring, hardihood and energy. He fears nothing that wears wings, and will give battle to any feathered intruder that dares to come near his haunts. Even man he scarcely avoids, and seems rather to seek his presence than otherwise. As a winter resident in Central Illinois his food is small birds and mice, and he exhibits the utmost daring and intrepidity in the pursuit of them. Of late winters they have commended themselves to the good graces of many persons by entering the towns and preying upon that intolerable nuisance, the English sparrow. Nature seems to have provided every living thing with an enemy or parasite to prevent its overproduction, and it has fondly been hoped that the Great Northern Shrike would solve the problem of the English Sparrow, but alas! their number would have to be legion.

One warm day in Feb. 1888, from a window in my office I was watching a Shrike dashing right and left after some English Sparrows that were in the bushes of the back yard. Catching sight of a cage containing canaries in an open window near by it made a dash for it, and did its utmost to get at the birds, clinging to the side of the cage, and leaving very reluctantly when the mistress of the house came to the rescue of her pets. The window was closed and the cage hung against it on the inside, when the Shrike again returned and flew against the window with much force.

A few days ago I saw one in hot pursuit of a Song Sparrow. Around and around through the thick brush and trees they went, the sparrow turning, twisting and doubling in its efforts to shake off its relentless pursuer but without avail. Finally it dashed into a brush pile almost at my horse's feet. But even here the Shrike with open mouth and flashing eye regardless of my presence still pursued it, and in a few moments they passed out on the other side and disappeared in the woods. The appearance and every action of the bird strongly reminded me of a Cooper's Hawk getting down into the grass and weeds to flush a concealed quail.

Not long since a young farmer invited me out to his field near town where he was husking shock corn, to see a "Mouse Hawk," as he

called it, catch mice. On coming to where he was at work I looked about for the Shrike but did not see it until he pointed to a tree two hundred yards away where it sat on the topmost twig. Pretty soon a mouse ran from the shock, when it came almost with the rapidity of an arrow, and seizing the mouse in its bill flew away with it to the woods across the river, but in a short time it was back again at its perch on the tree where it did not remain long until another mouse ran out from the shock. In order to test the bird's boldness I pursued this mouse, but undaunted it flew almost between my feet and secured it, and apparently not liking its hold it alighted a few rods away and hammered the mouse on the frozen ground, and then tossing it in the air caught it by the throat as it came down. He then again flew off to the woods. This proceeding the farmer assured me would be repeated many times in the course of the day, and that every mouse would be carried to the strip of woods just over the river. Subsequently a chopper told me that he had found a honey locust tree in this woods that had mice stuck all over it on the thorns.

The White-rumped Shrike is preëminently a summer resident and it leaves for the south as soon as the leaves begin to fall. It differs from the *borealis* in being almost exclusively insectivorous in its habits. Beetles and grasshoppers it is especially fond of, and hundreds of these insects can be seen sticking on the hedge thorns and barbed wire fences of the prairies. They have a strong affection for their young and remain with them after leaving the nest, hunting as a family. It is a very interesting sight indeed to see five or six chubby little fellows perched along a fence or hedge taking lessons from their parents in grasshopper catching.

I have written this article on the Shrikes to follow H. G. Smith's excellent article on the same subject in the Nov. O. & O. This subject might be profitably continued if some observer in the far south would describe the food habits, etc., of the Logger-head Shrike.

W. S. Strode.

Bernadotte, Ill.

What the Birds Think.

One sunny day in January I walked down to the river for the purpose of seeing some of my friends, the birds.

The fields seemed everywhere thronged with sparrows, while flocks of carolling blackbirds

in the trees by the road-side pied with the meadow larks in joyful songs of praise for the beautiful day.

After a brisk walk of twenty minutes I reached the river, the King's River it is called, and finding a grassy nook in the sunlight by the bank, I rested. It was a pleasant place to be; no sounds save the rippling murmur of the stream and the multifarious noises of the bird world.

I fell to musing and soon was almost asleep when a queer sound struck my ear; it was like a fairy laugh, "Ho—ho—ho! ha, ha, ha, ha!"

"Who are you?" I said, as I glanced around me in astonishment.

"A *Dendroica*" answered the voice, and I perceived a tiny, yellow bird skipping about among the willow twigs.

"I have just arrived from Boston," continued the bird, (for such it proved to be): "they used to call me Yellow Warbler, but they say I am one of the Westerners now," and again I heard that silvery, mocking laugh. This is truly astounding, I thought, as I rubbed my eyes. Just then a hummingbird buzzed over my head, flew around for a few seconds and settled on a limb to my right. It was followed by another hummer which alighted close by. I had no more than noticed this when, wonderful to relate, the two began talking:

"Don't you look at me," said the first comer sharply, "you're not what you pretend to be, you're a Rufous, and you know it and you've got a notch in your tail which *proves* it. You said you belonged to an old Allen family. I'll just get a divorce!" and she flaunted out of sight, while the poor *pseudo-alleni* darted off in the opposite direction. Before I could recover from the amazement in which this last occurrence had left me I noticed a shrike, staring at me curiously from a tree near by, and pretty soon he ruffled up his feathers and said,

"Are you an ornithologist?" "Amateur," said I, timidly. "Oh, it's all right then, you won't know me; I'm traveling *incognito*, visiting some of the *exhibitoriles*. They don't speak to us now, since Mr. Ridgway said we were different, so I have to pretend I'm one of them. I suppose you would call me the White-rumped, the amateurs nearly all do; in fact I've layed six sets of eggs under that name, but now I'm the California Shrike."

"Caw, caw!" cried a harsh voice in a eyeamore behind me, "and I'm the California Crow, ho, ho, ho!" and he flapped his wings derisively and flew away.

By this time I concluded it would be well to

start for home, and I, picking up my cane, hurried away through the woods, meditating of the glad time when I might hope to be something more than an amateur myself, when I might, in fact, be able to cause dissension among the Western Meadow Larks or perchance divide or re-name the Blinking Burrowing Owls.

H. R. Taylor.

Notes on the Anatomical Structure of the Crowned Crane.

In dissecting the body of a Crowned Crane, kindly given to me by Mr. Frank B. Webster, I was somewhat surprised to find the trachea perfectly straight, thus differing greatly from many species in the family to which the bird in hand belongs. Usually the anterior portion of the keel of the sternum is projected forward, widened and hollowed to receive a fold of the trachea, which is thus bent on itself in being pushed into this cavity. As the inferior larynx is simple, being provided with two pairs of vocal muscles only, the sterno-trachialis, and bronchialis, this latter muscle in most species being reduced to a mere strip which is nearly functionless, and as there are only a single pair of vibratory membranes, the tympaniforms, the loud cries emitted by the majority of Cranes is produced by the bent trachea, aided of course by the muscles mentioned. The Crowned Crane, therefore, without being absolutely voiceless, could not produce the resonant cries given by many others of the family. Another peculiarity observed in the specimen which I have, is seen in the terminal portion of the intestine, immediately preceding the coeca. Here the intestine has made a bend directly upon itself for at least two inches, and as one of the coeca is laid directly across this fold and is fastened to the intestine by tissues, the bend is permanent. In all probability, this peculiarity, which I have never seen before, is wholly individual, yet it clearly points to the origin of a coecum, which could have become evolved from some similar accidental, partial obstruction of the course of the partly digested matter in the intestine, which by increasing the length of the digestive surface would be beneficial to the animal.

C. J. Maynard.

Newtonville, Mass., Dec., 1888.

N. B.—For a figure of this singular modification see No. 2, Vol. 1, Maynard's Contributions to Science.

Cardinal Grosbeak.

A Cardinal Grosbeak (*Cardinalis cardinalis*) was shot in Wellesley, Mass., Nov. 4, 1888, by R. W. Denton. The bird, which is now in my possession, is an adult male. The feathers of the wings and tail are in good condition, not being worn as would likely be the case were the bird an escaped specimen from some cage. It was shy and with some difficulty was approached near enough to be shot. This is the first instance so far as I know of the Cardinal Grosbeak having been taken in Wellesley, although one was seen a few years ago by a local collector.

S. W. Denton.

Occurrence of Forster's Tern (*Sterna forsteri*) on Cape Cod, Mass.

While examining a number of terns collected on Monomoy island, Mass., Oct. 2d, 1888, the peculiar plumage of one at once attracted my attention, and I laid it aside with the intention of examining it more carefully when I had the time to spare. I have recently examined this bird and find it to be without doubt a Forster's Tern (*Sterna forsteri*) in the young plumage. It was shot in company with *S. hirundo* and *S. dougalli*.

John C. Cahoon.

The American Egret in Maine.

A specimen of the American Egret (*Ardea egretta*) was shot at Matinicus Island, Maine, during the latter part of June or first of July of the past year, 1888. I have one of the wings in my possession, and there is no doubt about the identity of the bird.

John C. Cahoon.

Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

We call the attention of the gunners on the Cape to the attempt of the town of Chatham, under the inspiring spirit of a few local schemers, to interfere with their rights. By their town reports they intend to get control to the exclusion of all others and again repeat their *clan grab game*. Let the people of Harwich, Dennis, and neighboring localities WATCH. Also let the state legislature have their eyes open to any petition that may be presented. There are others outside of Chatham who have rights. The state laws are for the benefit of

all citizens, and the state legislature are in duty bound, and will consider the interests of all. Gentlemen of Chatham will understand that we are informed of their intention. We propose to publish full detail of the proceedings against John C. Cahoon, including an attempt to force him to *pay dividends* a year since. Perhaps the sheriff would like to make statement why he discontinued the case, if so we will gladly give him space. We think their reference to the case now before the court, in bad taste, but believe it will have little influence on men of average common sense.

The purpose of the O. & O. is to publish the records of collectors, both old and *young*, and such facts as come to the notice of ornithologists, the editorial duties being confined to presenting the communications with as little change as possible, consistent with producing them in a legible form. While there is a general supervision to prevent errors it is not proposed to devote our entire time in investigations. Each article being given with the author's name and address, facility is afforded to those who desire to.

Our columns are always open to inquiry, suggestions and correction, when made with a view of obtaining and giving information.

We especially wish to encourage the young, and the publication of their efforts often leads to important development. We know of several instances where the development has been such that influence has been brought to bear to induce our correspondents to transfer their donations to another publication. In fact, one writer told us personally that he "had received orders to discontinue." The O. & O. should at least receive the credit of affording a good foraging ground. The management expects that its correspondents will exercise great care to be accurate and believes that they do. They have our sympathy in the fineness of some points that they have to contend with.

The course that has been adopted appears to be practical, and till we are convinced of a desired change or are *subsidised* continue in it we shall.

Considerable interest is manifested by our subscribers in the Bird Law Legislation. We have received many allusions to their unfairness to the interests of naturalists. It is the result of failure to present their case by an organized movement. We have endeavored to arouse their attention, and are ready to assist them in carrying out any plan that may be considered advisable.

Brief Notes.

We are in receipt of the December number of the *Ornithologist and Oologist*, published by Frank B. Webster of Boston. It is handsomely printed and otherwise well got up, while the contents are bright and highly entertaining and instructive. We are pleased to notice that Mr. Frank A. Bates, son of our Town Clerk, is one of the associate editors.—[Braintree (Mass.) Observer.

A ♂ Swainson's Rosy Finch (*Leucosticte tephrocotis*) was secured near this city, Jan. 3. Bluebirds, taking advantage of the mild weather, paid frequent visits during the holidays. Geo. G. Cantwell, Minneapolis, Minn.

"Line" Daniels of Portland, Me., is a regular combination of guide, taxidermist and Yankee. Owen, Moore & Co., a firm in his city, wishing to create a sensation, secured the services of the "Professor." He proenred a large stuffed bear, and, removing the interior make-up, by padding and ingenious manipulations, he arranged for the introduction of animation in the form of a vigorous boy. When Christmas week came, Bruin was on hand, and under control of a keeper was assigned a prominent position. Then the racket began. Surprise, pleasure, disgust, and fear manifested itself in the visiting patrons, "according as they were built." One lady thought it was an outrage, "The number of people made it close enough," she could smell the bear the minute she opened the door; while another suggested that the least they could do should be to keep the thing clean, and so it went on. Meantime the graceful manner in which the bear scooped in the nickles and stood on his ear for half dollars will be a legend of the future. The proceeds were donated to an orphan asylum, and the story of Line's bear is now a nursery song of the Portland infant.

A white-throated sparrow taken at Arlington Heights, Mass., Jan. 8. W. F. Hadley.

Blanks are now being sent out by the U. S. Department of Agriculture for the use of those who intend to observe the bird migration. Those who are interested should apply to the department.

Prof. L. L. Dyche, Lawrence, Kansas, writes that he has just returned from a trip to No Man's Land, Texas. He succeeded in securing eleven fine buffalo. These will be preserved for scientific use, and it is a matter of congratulation that they fell into his hands instead of those of the "skin hunter." The day has now come when all we have practically left of this interesting species is a few preserved specimens—thanks to the taxidermists. He also secured four great gray wolves, two coyotes, two lynxes, three swifts, several antelope and a number of smaller objects of interest.

I have been a subscriber to the O. & O. since it was commenced by Willard.—[Jerome Trombley.

That is the support that gives us encouragement.

Henry Hales, whose articles occasionally appear in the O. & O., in addition to being an ornithologist is quite a poultry fancier. He took 16 premiums on 16 birds (Silver Gray and Colored Dorkings) at the International Poultry Show at Buffalo last month.

THE OWL HAD EATEN PORCUPINE.—Charles R. Coombs, taxidermist, of this city, in preparing to mount a Great Horned Owl last week found the owl's body full of porcupine quills. The flesh was literally packed full of them, as well as the roof of the mouth. The owl evidently had dined on hedgehog.—[Belfast Journal.

The owl was shot at Castine, Me. I found the flesh full of quills, some of them over two inches in length; I do not see how the bird could live.—[Chas. R. Coombs.

A fine ♂ specimen of the Swallow-tailed Kite was shot June 2, and a ♀ Black-throated Green Warbler Dec. 25, 1888, both at Hamilton, Ohio. George Harbron.

Marcus N. Baker shot a Killdeer Plover at Scituate, Mass., Dec. 31, 1888; length 10, wing 6.25, extent 20, tail 4, tarsus 1.40, bill .80; a splendid specimen, the pectoral half ring unusually broad. H. D. Eastman, Framingham, Mass.

A Golden Eagle, freshly killed, was placed in the cold storage of the Mechanical Refrigerating company two years ago. We took it out a few days since and mounted it. It had remained frozen solid during the time; upon thawing, the feet and head were found to be somewhat dry, but otherwise it appeared the same as if it had only been in a short time.

The last of January without having any snow to speak of, has caused poor business for the taxidermists of this section. Northern birds have failed to put in an appearance in the usual numbers.

I saw in our market (Buffalo, N. Y.) an Albino Chipmunk ♀, pink eyes and pure white body, three faint dirty concealed stripes down the back. Why would it not be a good scheme for our friend in December number of the O. & O. to purchase it and go into the stock raising? G. E. H.

AN EXTINCT FOOD BIRD.—In the American Museum of Natural History there are four specimens of the Labrador Duck, according to the New York Times. Two are adult males, one an adult female, and one a young male. Fifteen or twenty years ago these ducks were very plentiful, and were sold in Fulton market for food at very moderate prices. Now they are entirely extinct, and only five specimens are known to be in this country, the fifth having formerly belonged to the museum collection, but being now at the Smithsonian Institution. In all the museums of Europe there are only seven. The adult male is quite black, excepting on the wings, head and neck, which are perfectly white, the crown of the head being topped with black. The female is of a grayish dove color, the young male being exactly the same in appearance, except that the head and neck are somewhat larger than those of the female. The bill and foot are very similar to those of the Mallard Duck, and the size is about the same as that of the ordinary canvas back.—[Boston Herald.

At a meeting of ornithologists held in San Francisco, Cal., Feb. 9, 1889, a "California Ornithological Club" was organized, for the study and advancement of the ornithology of the Pacific coast. The following officers were elected for the year 1889: President, Mr. Walter E. Bryant; vice-president, Mr. Harry R. Taylor; secretary and treasurer, Mr. W. Otto Emerson.

The advance guard of migration appeared at Haywards, Cal., Feb. 11. A weary traveller, "Trocilius rufus" (made tired by carrying its name), was received by the blooming flowers, and a temperature of 85° in the shade. "Rufus" says hundreds are coming this way, brother Jonathan, as the honey is sweeter.—[Squib.

Reports 6 and 7 of the Colorado Biological Association now ready.

During the last three years we have had reported a noticeable number of instances where the Acadian Owl has been found dead during the winter. Why is it?

Rumor says the organ of the Audubon Society has become non est. We allus tot dat chile be sicklie.

We have received three stereoscopic views taken from a pair of buffalo, stuffed by Professor Dyche for the Kansas State University in 1888. Placed on the grounds when photographed the appearance is so life-like and easy that we cannot detect the artificial. We congratulate the Professor on the high standard of his work.

A specimen of the Richardson Owl was found dead in Peabody, Feb. 2. Geo. O. Welch.

Kingfisher seen near Salem, Jan. 31. Geo. O. Welch.

Blue Quail, probably from Texas, offered for sale in Boston market, Feb. 7; not in fit condition for scientific use, but in a stage immensely suitable for game association dinners.

JACK IS DEAD, AGED 11 YEARS, 7 MONTHS.

A life well spent, without a sin,
Now rest in peace, a scientific skin.

New Publications.

U. S. Department of Agriculture, Division of Economic Ornithology. Bulletin No. 2, 8vo, pp. 313. *Report on Bird Migration* by Prof. W. W. Cooke, assisted by Mr. Otto Widmann and Prof. D. E. Lantz. Revised by Dr. C. Hart Merriam. Part first, introducing with a history of the first efforts, the author proceeds to theoretically consider migration. In brief, his idea is, that migration at first was very limited and an intelligent movement, which through repetition became habitual, and was transmitted from parent to offspring, till it has become, as we see it now, a governing impulse of bird life. In considering the cause, he gives "a love of home and familiar scenes of the previous summer as an impulse for a northward movement, in the sleet and cold of the spring, and a scarcity of food in the approach of winter for the return south." To this Dr. Merriam takes exceptions and notes. "I cannot concur with Prof. Cooke in the belief that love of the nesting ground . . . is foundation of the desire for migration. In a lecture on bird migration which it was my privilege to deliver in the U. S. National Museum, April 3, 1886, I said, 'some ornithologists of note have laid special stress upon the strong home affection' which prompts birds to leave the south and return to their breeding grounds. To me this explanation is forced and unnecessary. Birds desert their winter houses because the food supply fails, because the climatic conditions become unsuited to their needs, because the approach of the breeding season gives rise to physiological restlessness; and because they inherit an irresistible impulse to move at this particular time of the year."

Next is considered the speed at which they migrate, the relation of migration to barometric pressure, and the temperature, etc.

Part second, a systematic report of observations of the Mississippi Valley migration in 1884-85.

Our readers will remember the interest taken by the O. & O. in Professor Cooke's early labors (Vol. viii, ix, x), at which time we were impressed with its importance. We are indebted to Dr. Merriam for the copy.

A NEW MAGAZINE.—"Greeley," a journal of natural science, monthly, \$1.50 per annum, published by Jos. M. Wade, Boston. The first number printed on tinted paper, and bearing a startling resemblance to the O. & O. in its general make-up, has just reached us. It contains sixteen pages brim full of interesting matter. Just as we expected the first article that catches our eye is an ornithological article on protection. Wade's name is a guarantee that it will be a first-class publication, and we wish it success. Jos. M. Wade for a number of years published the Ornithologist and Oologist.

The Poultry World, monthly, published by H. H. Stoddard, Hartford, Conn., reaches us regularly. The January number, chromo edition, has a fine lithograph of the Peacomed Barred Plymouth Rocks, and is well illustrated throughout. The magazine has reached its 18th volume, and any of our readers who see it will agree with us that it merits endorsement. Subscription, \$1.25 per year; chromo edition \$2.00.

Correspondence.

Editor of O. & O.:

In the December, 1888, O. & O., Mr. John C. Cahoon takes a decided stand against the articles written by Mr. Benj. F. Hess and Mr. C. C. Maxfield, concerning the food of the Great Northern Shrike. I fail to see any evidence that the shrikes do *not* feed, principally, on English Sparrows in winter in this country, because Mr. Cahoon has (near Boston) "shot Shrikes in the most severe winters, and found their stomachs filled with insects, etc., or because the stomach of the one killed Oct. 17th, 'contained a large, white worm and part of a snow-bird.'" Winter does not begin till December 1st.

In our ordinary winters, here, the snow lies, on an average, two feet deep. Last winter, for

six weeks, one could drive for miles and hardly see a fence.

The bugs and other insects that hide under logs, and in bark and decayed stumps, have a good, thick blanket. Methinks that a Shrike, to dine off such grub in this county, must provide itself with a snow shovel and entomologist's chisel. The Shrike's motto probably is, *hunt shrike or die*, for I cannot believe that it ever roots through two or three feet of snow to get under a log, or digs into an old dead tree that is frozen hard.

My theory (slight proof), that how the Shrike obtains what few insects and worms they may get in winter (not in October, for in this month they might get plenty of insect food in freshly plowed fields), is this: During the winter months farmers are engaged, more or less, cutting wood and chopping down useless fruit trees. The woods are thinned out so much that dying or dead trees are used mostly. In cutting and splitting such timber, the grubs and beetles are exposed.

I agreed with Mr. Cahoon that Tern draw up their feet when flying. I have noticed it in two species of Tern, and more particularly with the Herring Gull. During cold snaps they hover over the river, oftentimes clearing the bridges by less than thirty feet.

If Mr. Arthur H. Howell will refer to the Laws of State of New York, 1886, page 669, chapter 427, he will gain the desired information regarding a permit. Most respectfully,

D. D. Stone.

Oswego, N. Y.

P. S.—Let me ask Mr. Edward Tennant a question,—Sept. 1888, O. & O.—Why do crows, when pulling corn, almost invariably take the soft kernel of corn, if they are only after cut-worms, etc.?

D. D. Stone.

Editor of O. & O.:

I notice many are interested in the laws pertaining to the collection of birds, their nests and eggs. It is a matter which has received the attention of few who are able to handle it wisely. In the December number of this magazine, Mr. Howell speaks of the law in New York. It certainly is defective, as all will admit.

In Bulletin No. 2 of the American Ornithologists Union, is given a "Revised Draft"—modified after the law in New York, but modified in some respects, one is that of which Mr. Howell complains—the refusal to grant permits to those under eighteen years of age.

A bill patterned after, and almost identical with the revised draft, to which I referred,

was introduced in our Legislature, the session of '87. It went the way of most of its kind—was referred to a committee on game laws, of which there was an abundance.

When it was released from the "friendly protection" of the committee, one would never have supposed it ever had anything to do with the bill that was introduced, for it provided for "the fine or imprisonment, or both, of all persons convicted of taking birds for millinery purposes." Not a word was said about collecting for any other purpose.

All right as far as it goes. Now, the old law provides for the fine, etc., of persons "wantonly molesting birds, their nests or eggs." It has proved to be troublesome to convince some of the justices of the peace (before whom the supposed law-breakers were taken) that the accused were *not* wantonly molesting the birds.

Why cannot we have a law that will protect the ornithologists? The sportsmen, in this state at least, have game laws enough to please most anyone—a state warden under salary, and deputies (on commission) appointed by him, and are under his directions.

It is not very pleasant to have a deputy warden swoop down on you, especially as he is led to such activity by the "almighty dollar," his share of the fines.

There are plenty of people who say, "Oh, give us a good law and all will go well." That is just the point. *What is a "good law?"* It can't be expected to put in an appearance ready to battle with an unsympathetic legislature, without thought and work from some source. If the hunters can have law upon law, why can't the ornithologists have one.

Now, Mr. Editor, I suggest that we take something as a starting point, and, through your magazine, build upon it. The Revised Draft of New York law, of which I have spoken, may be objectionable to some. Then let them suggest a better way out of the difficulty. But it must not be expected *all* will be pleased with the result. It will take *thought* to gain a good foundation and *work* to bring about the desired result. Very truly,

Walter B. Hull.

Milwaukee, Wis., Jan. 14, 1889.

Editor of O. & O.:

Dear Sir:—Will you kindly allow me to correct an error in a letter from Mr. Arthur H. Howell, of Lake Grove, L. I., published in the O. & O., December, 1888. Mr. Howell, in purporting to quote from the New York law for the protection of birds, says: "The law states

that "any incorporated society of natural history in this state may designate any proper person of the age of eighteen and upwards, to whom a certificate may be granted," etc. He then adds: "This is all very well, but are we to wait an indefinite length of time for some society (to whom we may be unknown) to 'designate' us?"

In answer I append a *correct* transcript of the only part of the law to which the above can refer. The law says, § 4: "Certificates may be granted by any incorporated society of natural history in the state, through such persons or officers as said society may designate, to any properly accredited person of the age of eighteen years or upward, permitting the holder thereof to collect birds, their nests or eggs, for strictly scientific purposes only. In order to obtain such certificate, the applicant for the same must present to the person or persons having the power to grant said certificates, written testimonials from two well-known scientific men, certifying to the good character and fitness of said applicant to be intrusted with such privilege," etc.

It is thus evident that your correspondent is laboring under a misapprehension as to just what the provisions of the law are in respect to granting permits for collecting birds for scientific purposes. I heartily sympathize with your correspondent in respect to the age limit required by the law, as the other provisions of the law amply guard against permits falling into the hands of improper persons.

I enclose herewith a copy of the New York law, entitled "An Act for the Preservation of Song and Wild Birds," passed May 20, 1886.

Very truly yours,

New York, N.Y.

J. A. Allen.

THE NEW YORK LAW.

Chap. 427.

AN ACT

FOR THE PRESERVATION OF SONG AND WILD BIRDS.
Passed May 20, 1886; three-fifths being present; without the approval of the Governor.*

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. No person in any of the counties of this State, shall kill, wound, trap, net, snare, catch, with birdlime, or with any similar substance, poison or drug, any bird of song or any linnet, blue bird, yellow hammer, yellow bird, thru-sh woodpecker, cat bird, pewee, swallow, martin, bluejay, oriole, kildee, snow bird, grass bird, gross beak, bobolink, phœbe bird, humming bird, wren, robin, meadow lark or starling, or any wild bird, other than a game bird. Nor shall any person

purchase, or have in possession, or expose for sale any such song or wild bird, or any part thereof, after the same has been killed. For the purposes of this act the following only shall be considered game birds: the Anatidae, commonly known as swans, geese, brant, and river and sea ducks; the Rallidae, commonly known as rails, coots, mud-hens and gallinules; the Limicola, commonly known as shore birds, plovers, surf-birds, snipe, woodcock, sand pipers, tattlers, and curlews; the Gallinae, commonly known as wild turkeys, grouse, prairie-chickens, pheasants, partridges and quails.

§ 2. No person shall take or needlessly destroy the nest or eggs of any song or wild bird.

§ 3. Sections one and two of this act shall not apply to any person holding a certificate giving the right to take birds, and their nests and eggs, for scientific purposes, as provided for in section four of this act.

§ 4. Certificates may be granted by any incorporated society of natural history in the State, through such persons or officers as said society may designate, to any properly accredited person of the age of eighteen years or upward, permitting the holder thereof to collect birds, their nests or eggs, for strictly scientific purposes only. In order to obtain such certificate, the applicant for the same must present to the person or persons having the power to grant said certificate, written testimonials from two well-known scientific men, certifying to the good character and fitness of said applicant to be intrusted with such privilege; must pay to said persons or officers one dollar to defray the necessary expenses attending the granting of such certificates; and must file with said persons or officers a properly executed bond, in the sum of two hundred dollars, signed by two responsible citizens of the State as sureties. This bond shall be forfeited to the State, and the certificate become void, upon proof that the holder of such a certificate has killed any bird, or taken the nest or eggs of any bird, for other than the purposes named in sections three and four of this act, and shall be further subject for each such offense to the penalties provided thereto in sections one and two of this act.

§ 5. The certificates authorized by this act shall be in force for one year only from the date of their issue, and shall not be transferable.

§ 6. The English or European house-sparrow (*Passer domesticus*) is not included among the birds protected by this act.

§ 7. Any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor, punishable by imprisonment in the county jail or penitentiary, of not less than five or more than thirty days, or to a fine of not less than ten or more than fifty dollars, or both, at the discretion of the court.

§ 8. In all actions for the recovery of penalties under this act, one-half of the recovery shall belong to the plaintiff, and the remainder shall be paid to the county treasurer of the county where the offense is committed, except if the offense be committed in the city and county of New York, the remaining one-half shall be paid to the chamberlain of said city.

§ 9. All acts or parts of acts inconsistent with, or contrary to the provisions of this act, are hereby repealed.

§ 10. This act shall take effect immediately.

STATE OF NEW YORK, | ss.:
Office of the Secretary of State, | ss.:

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom and of the whole of said original law.

FREDERICK COOK, Secretary of State.

* Not returned by the Governor within ten days after it was presented to him, and became a law without his signature. [Art. IV. See, 9, Constitution of the State of New York.]

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No. 3.

Nesting of the Florida Burrowing Owl.

Late in the fall of 1888 it was my good fortune to find the owl towns in the great prairie which stretches away northward from Lake Okeechobee. Good fortune I say, but it was not an ordinary every day bit of good luck. Ten days I had been tramping over the seemingly endless prairie before I found my first owl burrow, and it was over two weeks before I secured the first specimen of the bird, which was about the only reward for my long and fatiguing trip.

Before going out I made diligent inquiries among the "cow boys" regarding the habits and locations of these interesting birds. All had seen them, and could describe vividly their looks, note, and actions, but all failed to locate any of their towns. This seemed to be due to two causes: First, because no one really cared where the owls lived, and second, when hunting or cattle-driving, there was too much else to look after, to make any accurate examination of the spot where the birds were seen. So it went out of mind at once. But, after I met with some of the Seminoles, the case was entirely different. Nothing escapes their observation. They have names for even the smallest and most insignificant looking birds and plants, and their confidence once gained, they will tell you anything you want to know, provided, of course, you can understand their very peculiar language.

They told me that "the owls had all gone from the prairie." This I found almost literally true. Town after town was visited, and every burrow that showed any signs of having been recently inhabited was grubbed out from end to end, until at last, after two weeks of patient work, the coveted specimen was seen.

Now the fun began in earnest. That bird I was bound to have, but he seemed to know the exact range of a gun. Not only that, but he

flushed in a ziz-zag sort of a fashion before he took a straight course, and it seemed to be a part of his plan to pitch down on the opposite side of some muddy slough or water course.

Hours passed, so did miles, but at last my owl fell a victim to his own wiles. I marked him down by the side of a long narrow slough, and, being sure that he would cross it when he rose, I advanced up the margin until I thought he would soon rise, and then ran for him at full speed. As he rose, I fired, still running, and, when fairly over the water, gave him the second barrel with success.

As he dropped, I sat down and took time to feel how tired I was. It is a pity we have no genius in the world yet who can invent an accurate "tired-nometer." I think I could have used one that day over a yard long, and strained it to its utmost capacity.

Although in the West the Burrowing Owl usually inhabits the deserted domicile of some animal, this does not seem to be the case with the Florida Burrowing Owl (*Speotyto cunicularia floridana*). There are no animals in the country which the latter bird inhabits to make such holes as they require, and I am assured that every hole is occupied by a pair of owls in the spring. When one is eaved in by cattle or horses, its occupants at once proceed to excavate a new one. The Indians say that they use their feet for this purpose, and dig pretty fast, too.

All the burrows that I examined contained the remnants of last year's nest, and many old dry "pellets," together with broken bits of insects. I could find no evidence that their food was anything but insectivorous, and this coincided with the testimony of the Indians. They also stated that the birds lay eight white eggs, and hatch them "between the new moon and the full." This, no doubt, means that the period of incubation is less than a month.

Their imitation of the cry of the bird was very much like the notes of the Cuckoo, and

not at all owl-like in its tone. As their rendering of the voices of all the birds that I knew was remarkably correct, I have no doubt that they were equally true to nature in imitating this one.

Where the Burrowing Owls go to, after the breeding season is over and the young birds able to fly, seems to be an unsolved problem. The "cow boys" did not seem to know of any such exodus, and when I talked with them about it, suggested "the scrub," or the "big saw grass." The Indians only said that they were away, and offered no explanation. Neither did the phenomenon find any place in their numerous and interesting bird myths and fables. My own opinion is that they are in the fall more arboreal, and perhaps, also, more nocturnal in their habits, and seek the wooded "islands" in the prairie and the swamps along the edges of the streams.

The burrows are found either in the very highest parts of the prairie, or in the thickest vegetation, but occupy a peculiar sort of sandy flat ground, which, however, is covered with a good tough turf. They are about five inches wide, and three and a half high, and extend underground on the average less than six feet. A few I found were eight feet and over. Only one was less than four feet. The superincumbent soil is from eight inches to a foot thick, and the chamber at the extremity, in which the nest is placed, is quite circular, and not less than a foot in diameter. It is higher than the passage-way leading to it, and being likewise slightly domed, it brings the top quite near the surface of the ground. It is this part of the habitation which is most often eaved in by the feet of passing cattle.

The sand that is thrown out at the mouth of the hole makes quite a conspicuous mound in the open prairie, but in the "roughs," or those places that have not been burnt over for some years, the weeds and grass are rich and rank about it, being doubtless fertilized by the dropping and castings of the inhabitants. This hides the burrow pretty effectually from the casual observer, but, after a little experience, these circular patches of richer vegetation were quite a valuable guide in my search.

I found no very large towns, the usual number of burrows being five or six. The largest number found together was eleven, and the smallest three. The holes open to all points of the compass, although one of the oldest settlers in the region assured me that they always extended south underground. They seldom make much of a turn. A moderately supple

stick generally accommodates itself to any slight bends and reaches their end. When one hole was found, I always looked for others within at least a rod, and occasionally they were not more than a yard apart.

Walter Hoxie.

The Blackburnian Warbler at Home.

Having ever admired the lovely little creature—the subject of my sketch—and never having become acquainted with him, save as a transient visitor, when he rested for a time on his long journeys, it was with keen delight that I followed him on his home-going in the spring of 1887.

Often have I watched these charming birds, as they moved about quietly among the foliage in search of food; but very little of their real nature did they disclose to me; never a note nor a chirp; silent and satisfied they soon hurried on.

Occasionally they are overtaken by a sudden cold snap, and then their plight is pitiable.

Once while traveling in northern Iowa, during the month of April, a bitter cold spell of weather came quickly upon the track of a warm bright time, and I remember that in the town of Clarion many small birds had drifted into the more sheltered localities to escape the biting blast that had met them while crossing those treeless prairies. Among them was a little Blackburnian Warbler, so chilled that it did not object to being held in my warm hand. Perhaps it blessed me for the kindness; at any rate, I know that nothing in that eventful collecting tour gave me greater pleasure.

The first time I saw this species was upon a fine spring morning at the old home near Newton, Iowa, when a small flock of male Blackburnians, with some Black-throated Green Warblers, spent a forenoon among the evergreens and shrubbery in my father's yard.

They were very tame, permitting my sister and myself to approach within a few feet of them, where we watched their movements for a long time, charmed by their brilliant garb and dainty actions as they flitted here and there among the new leaves or the bloom-laden plum trees. Little did I then hope to see them in glad abandon, where tangled spruce and hemlock marches—which abound in the wooded lake region of northern Minnesota—offer them a perfect home. During May and early June the males were in constant song. Perched upon a dry and broken branch of some

tall, old hemlock, one of these dauntless fellows will sit for hours in the warm sunshine, pouring forth his matchless melody. But let another male intrude upon his domain, and in a twinkling the song ceases and the songster is transformed into as much fight as his little feathers will contain. As soon as his jaunty toe is driven away, the perch is resumed, and his victory is heralded forth in ecstatic strains.

These thrilling notes of love-making are difficult to represent, somewhat resembling the song of the Black-throated Green Warbler, but to my notion, richer and more lively, and he is not at all afraid to come out and show himself. In fact he is a little vain of his flaming throat, and evident prowess in song. While thus a conspicuous object in these secluded wilds, his modest mate is gliding in and out among the thick foliage of the black spruce. One will start near the ground, and by hopping from branch to branch, soon gain the close, concealed top, from which it lightly falls to another tree, and so continues its search. In the locality where I observed them, the black spruce (*Abies niger*) seemed to be their favorite; and a right good protection it is for the home-making, for when thickly draped with the long wands of pendant *Usnea*—"Old Man's Beard,"—it is well nigh impossible to detect either the bird or nest. And it is only by watching the female, while carrying material, that one is likely to find the nest, and even then it is not an easy task. I spent many days before finding the first nest, and, at the time, there were two pairs building within a small radius, in a close set marsh.

On the morning of May 20th, while waiting near the corduroy road, which crosses this marsh at a certain point, a female Blackburnian Warbler flew to the middle of the road and began tugging away at some hairs, which were secured, and carried into the thick, young hemlocks. This it repeated often, and my most earnest efforts failed to detect where she went. Three consecutive days she continued at her task, leaving me as much in mystery as at first.

Several days later, by chance, I espied the bird contentedly sitting upon her eggs, up in a hemlock tree. Shortly after I detected another pair building, and was more fortunate, for while standing silent at the edge of a small opening during a shower, a male Blackburnian came out on top of a black spruce, and after pluming himself, flew away, to return in the course of half an hour, when they both made their appearance. Soon both left shortly to

return again, the female carrying a long grass blade. The male stayed close by her. They went direct to the nest, thirty feet up in the far out tip of a branch of black spruce. I saw them go back and forth many times, the male simply keeping his mate company.

The first nest was placed against the trunk, and upon a small branch which sprang from the tree at a height of twenty feet.

The nest before me has a light platform of fine, dead twigs of the spruce. Into this is neatly woven a considerable quantity of *Usnea*, then a sufficient lining of finely shredded, inner bark of the bass wood, with a few long horse hairs, and a number of deer's hairs. The rim of the structure is *Usnea*, neatly matted and twined, holding all together. Then the exterior is flecked all over with fluffs of cottony spider's webbing. Altogether it is an elegant work of art. It measures three inches across by one and a half inches in depth, thus being quite shallow. The depression in this is very shallow and small. It contained two fresh eggs of the owner and one of the Cow Bird, and at the foot of the tree were fragments of two more eggs which had been crowded from the nest by this parasite.

In the second nest the materials were similar to those in the first with the addition of some soft grasses. It had been placed in the fork of a horizontal branch near the tip and five feet from the trunk, thirty feet from the ground. Over this branch grew another, which lay close upon it, concealing the nest from every way. This set consisted of three eggs, with one of the inevitable Cow Bird. The fourth egg lay broken on the ground. The eggs when fresh are rich, much resembling those of the Chestnut-sided Warbler.

With all the tugging and slipping I did in drawing myself up by means of those drooping, rope-like branches, and with all the jolting the tree had in consequence, the bird remained close, never uttering a protest. So gentle and patient was she, I came well-nigh leaving her in possession of her treasures.

J. W. Preston.

Baxter, Iowa.

The Effect of a Storm on Birds.

An incident that occurred in my experience during last season's collecting (1888) impressed upon my notice facts in connection with violent and extreme changes of weather, to which my attention had never before been so forcibly directed. During the middle of May

last, there were two weeks of the most charming of spring weather. Old Boreas had at last retired from the fields he had ruled so long, the sun shone out upon the glad earth in warmth and brightness, the trees so long bare burst into leaf and hastily donned their emerald robes, the many tinted flowers of spring spread their gay petals rejoicing in the light and heat and scenting the air with their perfume; birds sang on every spray, each hour bringing new arrivals full of life and full of song. The thrushes, the towhees, the robins, the sparrows, the bobolinks and warblers were chanting their songs of welcome, choosing their mates and building their nests.

But a sudden change came over the face of nature, a driving north-east wind, cold as if direct from off the face of an iceberg swept over the scene, the fruit blooms were blasted before its icy breath, the flowers of yesterday so gay lay prostrated with blanched and battered petals, but the birds, the poor little birds, but lately from tropical climes, how fared they and how endured the pitiless pelting of the cold storms that beat upon them without mercy day after day?

At last it was over, and the sun once more shed its welcome beams abroad with as warm a smile as if he had not for a whole week given place to the raging tempest. As I renewed my walks over the hills, the orchards and fields, I visited the old robin's nest which had two eggs before the storm began, but it was empty; the little sparrow who had one egg, I found sitting on three; the old blue jay, who had four eggs before the storm broke, I found sitting on two; did she, driven to desperation by the pangs of hunger, devour her own offspring? I believe it is the fact. There was a little Yellow-throated Vireo, which I had watched with much interest, as day after day during that last pleasant week she had diligently labored, bringing lichens and fibres and webs, to suspend her beautiful cradle from some forked twigs, now were to be found only a few weather-beaten shreds waving from them to mark the scene of so much skill and labor wasted. Where was the artisan? I could no more hear her note or the cheering warble of her mate as on the week before he had poured it forth in soul-stirring song. I saw them no more. I also found the reliques of many another little nest without tenant or claimant.

But the special incident to which I made allusion in commencing was the saddest of all. On the brow of the hill, over which my course led within a few feet of the sheep-path, lay a

browned cedar branch, and, snugly concealed beneath it, a Chewink had built her nest. This morning, as I passed the spot, I noticed her sitting quietly, half hidden from sight and taking no notice of my approach, with closed eyes, apparently sleeping, and even upon intentional disturbance giving no sign of alarm; but I soon discovered that it was the sleep which knows no waking, that, stiff and cold and dead, she was covering her four fresh eggs in a nest all soaking with wet; and the thought suggested was, may not this be a common result of such extremes of weather upon the female bird, overtaken in the labors of maternity, and may not these consequences more truly explain the apparent greater abundance of male birds, instead of the ordinarily accepted one, that it is only apparent and observed because the males are more conspicuous by their gayer plumage and song.

John N. Clark.

Saybrook, Conn.

A Quahaug Captures a Tern, and a Sea Clam Drowns a Scoter.

In the July O. & O. is an account of the capture of a Sea Gull by a clam, taken from the *Boston Herald*. Two similar cases have been brought to my notice this last season. Mr. Kendrick, a guest of the Bristol Branting club of Monomoy Island, while out on the flats Sept. 22d, had his attention attracted by the peculiar actions of a Tern in the shoal water at the edge of the flats. On approaching the bird that gentleman saw that there was something attached to its bill, which caused it to make every effort to keep its head above water. Mr. Kendrick easily caught the bird, and upon examination found its bill to be about one-half of its length encased in a Quahaug (*Venus mercenaria*). The Quahaug measured about three inches in diameter. The bill of the Tern, when removed from the grasp of the bi-valve, was found to be considerably indented by the pressure upon it.

The second instance of the pugnacity of a bi-valve is that of a Scoter, which was found by a gunner floating on the water with a large Sea Clam (*Mactra solidissima*) firmly clasped to its bill. The weight of the clam kept the bird's head under water until it was drowned.

The Scoters feed principally on mussels and other shell-fish, and this bird in diving inserted its bill into the open valve of a clam larger than it could handle, which resulted in a victory for "Herr" clam. *John C. Cahoon.*

Food of the Great Northern Shrike.

While cutting wood December 17, 1888, I noticed a half-eaten robin placed in the crotch of an elm, about six feet from the ground. On reflecting, I concluded it might be the work of a shrike, and placed a steel trap on the remaining part of the bird. I did not visit the place until the 10th, when I found the robin torn to pieces, and a Great Northern Shrike dangling by the neck from the trap. This is conclusive evidence that the robin was killed and eaten piecemeal by the shrike, as parts of the bird were found in the stomach of the shrike. The weather was warm and no snow on the ground, showing that insect food might have been obtainable.

On January 14, 1889, while passing over a field of stubble my attention was attracted to a Shrike poised in the air about 20 feet from the ground; it soon darted down within a foot of the ground, and again poised itself, then I noticed a meadow mouse (*Arreicola riparous*) trying to jump up and combat the shrike, but the bird taking and having all the advantage soon overcame and killed the mouse, and then seizing its prey it flew away a short distance and began to devour the mouse, when I interfered, and the bird taking the remaining portion of the animal flew out of my reach. The facts that I have written in previous numbers of this magazine were the result of close observation in the field relative to the food of the Shrike in this part of New York, and I am willing to furnish any further evidence that is needed to carry out my assertions in previous articles, and until I have further proof from Mr. Cahoon or other gentlemen interested in this matter I shall consider that the greater element of food during winter in our section is small birds and animals. *Benj. F. Hess.*

**Vireo Solitarius Alticola at Raleigh,
N. C.**

We have taken four specimens referable to this variety here, and another intermediate between *alticola* and typical *solitarius*. I give data and measurements as of some interest:

October 13, 1886, ♀, l. $5\frac{3}{4}$, w. 3, t. $2\frac{1}{2}$, e. $9\frac{1}{4}$.

November 3, 1886, ♂, l. $5\frac{1}{6}$, w. $3\frac{1}{6}$, t. $2\frac{1}{6}$, e. $9\frac{1}{4}$.

June 4, 1888,* ♂, l. $5\frac{1}{2}$, w. $3\frac{1}{6}$, t. $2\frac{1}{2}$, e. $9\frac{1}{2}$.

August 10, 1888, ♂, l. 6, w. $3\frac{1}{4}$, t. $2\frac{5}{6}$, e. $10\frac{1}{2}$.

August 10, 1888, ♀, l. $5\frac{1}{2}$, w. $3\frac{1}{6}$, t. $2\frac{1}{6}$, e. $9\frac{1}{2}$.

C. S. Brimley.

Nesting of the Prothonotary Warbler.

One of the most beautiful as well as one of the least known of our summer visitors is this bird (*Protonotaria citrea*). To know him one must be familiar with the stagnant ponds, damp, miasmatic, heavily timbered swamps of our grand Mississippi valley. To study well the habits of this very gaudily dressed songster you must spend hours of time, use careful observation, and, last but not least, more than likely make the acquaintance of King Ague.

In this section of country this little known bird is very abundant, and yet is scarcely known to any but the students of ornithology on account of his peculiar habits. For some years past I have been making a special study of this warbler, and it is with no little misgivings that I now propose to give the results of study to my bird-loving brothers, although it is done at the special request of the editors of the O. & O.

These warblers arrive here from about the first to the tenth of May, and immediately select some old deserted woodpecker's hole, or natural cavity, in an old snag or live tree. This is their house, and right valiantly do they hold it against chickadee, wren, or other squatter.

One of the odd things about their selection of a nesting place is their ability to tell where the ponds and creeks will be when the river goes down. But they can. They usually come North when the river (Illinois) at this point is very high, and expanded in an unbroken sheet of water from one to two miles wide. Yet these little fellows select a place for a home that, when the water goes down in the summer, is almost always beside some small piece of water that does not dry out. How they can tell where these will be when the whole face of the bottoms is covered with water is a mystery.

Having selected their nesting place, the female begins by bringing some fine straws or grasses which are arranged in a nice nest in the bottom of the hole. Next she procures some fine strips of grape vine bark, and lines her nest, and lastly covers this all over carefully and thickly with moss, such as grows on the bark of trees standing in the water. This mode of construction is the usual one and makes a very warm, compact nest.

They very rarely use any feathers or hair, and sometimes build their nest entirely of one of the above materials; and I have one nest in my collection that has as carefully a woven

* Intermediate form.

lining of small black rootlets as are ever seen in a Kentucky Warbler's nest. However, these are exceptional, as the nest is usually constructed as above stated.

The entire work of building, so far as I am able to judge, is done by the female bird, her male aiding her only by a continual and vigorous song and occasionally—but very seldom—by bringing a small bill full of material and leaving it on the *outside of the hole*, for her to carry in and arrange.

The situation of the cavity is something they seem to care little about, only that it must be near the ground, or water, rather. So far as my observation goes they very rarely use a hole higher than fifteen feet, and far oftener lower than five, than above ten. Sometimes, however, they ascend as high as twenty-five feet. As for concealment they seem to care little or nothing, as I have frequently found their nests where I could stand in my boat and see the bird on her nest twenty to fifty yards off—the cavity being shallow; and I have many times found them sitting on a nest that was not over three inches above the water, in the end of a broken leaping snag, and the bird, eggs, and nest all wet with the splash of the small waves.

Many of the little fellows lose their nests by this love of building low down, as sometimes the river rises after they have a nest of young birds, and drowns them out. At such times their distress is pitiful.

Usually about a week elapses between the time they select a nesting site, and the beginning of building. This usually takes about ten days, and fresh eggs are found here from about May 17th to June 15th, as the extreme dates shown by my journal.

The number of eggs varies from three to seven, although I have always believed both were not the real number laid by one bird. I have very seldom found three to be a full set, and then believed that the bird had been disturbed, and out of several hundred of these nests examined by me I have never found but three sets of seven, and, as stated above, I do not believe they were all laid by one bird, but I found that belief on the scarceness of such sets rather than on any tangible evidence.

The usual number of eggs found in a set is five or six in about the proportion of two of five to one of six.

The eggs are strikingly handsome, and present a very great variety of size, color, and markings. To my eye they are among the most beautiful examples of our American eggs,

particularly when fresh, when they present the pink cast of shell so common to birds' eggs, and which is lost on blowing them. They vary from a light background, almost obscured by lavender, reddish-brown, purple and black spots, and blotches, giving the egg something of a chocolate cast at a distance, to a pure white shell sparsely but boldly spotted with the above colors, and occasionally a yellowish phase is taken, which is very rare. Once I took a white set.

The shell is strong, hard, smooth, and with something of the gloss of a woodpecker's egg. Once in a while a person will find a set of their eggs that has the shell rough and calcareous. This is something that to my mind is, as yet, unsatisfactorily explained.

The size of these eggs is given by the books as .70 x .52, and is approximately correct. Yet they vary greatly, and I have taken eggs that would vary from these figures both larger and smaller fully .10 of an inch, and I have in my collection one "runt" egg of this species that is not much larger than a pea. It measures .48 x .40. The other four eggs in this set average .73 x .55. The "little fellow" is in every way as perfectly marked and formed as any of its larger brothers.

Incubation lasts about two weeks and is entirely performed by the female bird, but after the young are hatched the male turns in and helps to feed the family. This is about the only work I know of his doing. Their food consists mainly of the small insects found in the swamps, and the old birds rarely go far from their home until the young are able to fly, when they hunt in families for some time, and usually leave us for the South about September 1st, and we have seen the last of our golden-colored little friends until the next season.

R. M. Barnes.

Lacon, Illinois.

[The experience of Mr. Barnes respecting the number of eggs laid by this bird is different from that of a collector near Burlington, Iowa. Out of forty-two sets collected by him only one set consisted of five eggs, and one set four eggs; while twenty-three sets had six eggs each, fifteen sets contained seven eggs each, and one extreme set consisted of eight. The set of four eggs also had four of the Cowbird, the set of five had three of the same parasite, while eleven of the sets of six each had one Cowbird's egg, and four of the sets of seven also had one each of the same pest.

A series of sixty-six sets of eggs of this

warbler now before me contains three sets of four each, seventeen sets of five, thirty sets of six, fifteen sets of seven, and one set of eight.

J. P. N.]

Nesting of the Long-billed Marsh Wren.

Along the Delaware river, ten or twelve miles below Philadelphia, there extends a series of marshes drained by numerous ditches. These marshes are covered with the long ribbon-like cat-tail and calamus reeds, partially submerged at high tide. This is the breeding place of the Long-billed Marsh Wren (*Telmatodites palustris*) which we may consider as the commonest marsh-breeding bird in this vicinity.

The Marsh Wren's nest is an almost globular structure, formed by the weaving together of numbers of dead cat-tail leaves. The long diameter of the nest is about seven, and the short about five inches, in fact it is somewhat the shape of a cocoanut with the outside fibrous shell intact. The entrance is a circular hole from one to one and a half inches in diameter, and situated at the side, generally two or three inches from the top, the entire structure being firmly bound to the growing reeds, out of reach of the high tides.

The eggs, four to nine in number, are of a dark chocolate color, with very minute and numerous markings of a deeper brown, distributed over the entire surface. Some, however, are almost uniform in color, and I have seen several sets in which one or two eggs, except at one end, were nearly white.

In regard to their duplicate nests, as a general rule, I found from three to five empty nests for every one occupied. Why these duplicate nests are made we do not know, some say they are built to deceive their human enemy (if man may so be called), others that the male Wren builds them to sleep in, and again that he amuses himself by building them while the female is sitting on the real nest, but whatever it is for is a problem yet to be solved. Until I found out how to distinguish them, as I think I have, the extra nests caused me a great deal of annoyance. I noticed that almost invariably the entrance to the occupied nests was lined with cat-tail or thistle down, while the unoccupied ones had none.

The song of this Wren has been described by Wilson as a crackling sound, but to me it seems more like a liquid gurgle, beginning

slowly and growing faster. This lasts for about five seconds, when there is a stop of a few moments and the music begins again.

On the near approach of anybody the bird often flies straight up in the air for about ten feet, and then descends in the same manner. This is presumably to locate the position of the intruder. The Marsh Wren, like the rest of the family, can bend its tail back until it almost touches its neck. In this position he creeps or rather seems to slide around the reeds in search of food.

F. W. Koch.

Philadelphia, Pa.

Some Peculiar and Uncommon Birds Obtained in Sank County, Wis.

I will venture to briefly describe a few birds of especial interest taken in this vicinity.

An albino specimen of the eastern Snow-bird (*Junco hiemalis*) was obtained here during the winter of '86 and '87, and is now in the collection of a taxidermist in an adjoining town. The entire plumage of the specimen is of snowy whiteness. The length, extent, beak and feet are normal, and, in fact, in every respect except plumage, it is the same as those of its kind. It was taken from a flock while feeding on the ground. I know of no other instance of this kind.

There is also in the cabinet of this collector a fine specimen of the Rock Ptarmigan (*Lagopus rupestris*), taken by a sportsman during the winter '78 and '79. Some thought it was an Albino Partridge, but I am satisfied, upon examination, that it is a Rock Ptarmigan. Cones in his Key does not regard it as even a rare visitor to the United States.

I had the good fortune during the winter '86 and '87 to obtain some fine specimens of the Evening Grosbeak (*Hesperiphona vespertina*), which were seen here in considerable numbers. This bird seldom visits this section, it being only the second instance that has come under my observation.

During the severe cold of the winter '87 and '88, three of the Little Red or Mottled Owls (*Scops asio*) laid down their lives in this locality for the cause of science, one by the roadside, one in a hay-mow, and another on a neighbor's porch. No doubt a more sensible view of the case would be that scarcity of food, together with the extreme cold, was the true cause of their death.

Mrs. E. C. Wiswall.

Prairie du Sac, Sauk County, Wis.

Description of a Supposed New Species of Gannet.

[From advance sheets of "Contributions to Science."]

The following is a description of a species of Gannet that I obtained on the island of Little Cayman, in April, 1888. Misled by circumstances, and having no convenient opportunity of comparing the specimens taken with other species, I supposed, until recently, that they were the Blue-faced Gannet (*Sula cyanops*); greatly to my surprise, however, upon looking up the matter, I find that they not only differ very much from that species, but are unlike any other Gannet that I ever saw, or that I find described. This is the species given by Mr. Cory as *Sula cyanops*, in a list of birds taken by me on Cayman Brae and Little Cayman, published in the *Auk* for January, 1889, pages 31 and 32. I have dedicated the species to Mr. Charles B. Cory, who has done more than anyone else towards extending our knowledge of West Indian birds.

SULA CORYI Novo.

Cory's Gannet.

DESCRIPTION.

Sp. Ch. Color, similar to that of the Common Gannet (*Sula bassana*), but the form and size are those of the Red-faced Gannet (*Sula piscator*), from which it differs, even in the young of the second year, in having the tail wholly white.

Form, rather slender. Size, small. Bill, quite smooth, without showing the scaling, usually so prominent in members of this genus, very much; there is a groove extending from the base of the upper mandible to near the tip; an inch from the tip, an oblique groove, about .30 long, extends to the top of the bill, but does not quite meet its fellow on the opposite side, and there is a notched scale on either side, in front of the gape, with the division from the bill prominent in front, but to which the skin of the face adheres above. The lower mandible is wholly without grooves or scales. In form, the upper mandible is considerably depressed along the culmen, and but slightly swollen at the base, while terminally, beyond the upward branching groove, it is strongly curved. The outline of the lower mandible shows a slightly upward curve, then is a very little swollen near the tip, below the curve of the upper. Both mandibles are depressed on the sides for two-thirds their length, and are toothed for a little more than

one-half their terminal length, the teeth being irregular in size, and pointing backward. The face is naked about .25 on the forehead, and curves back of the forehead about the same distance, then descends obliquely backward to within .05 of the gape, where the gular sac begins. The gular sac is not prominent nor much wrinkled, and the feather outline at the base is very nearly straight, being but slightly curved forward. The feet are rather slender; the tarsus is about half the length of the middle toe and claw; the hind toe is half the length of the inner; the inner, with its claw, is somewhat shorter than the middle without the claw, while the middle and outer, without the claws, are equal; the claws are all strongly curved, and those of the hind and outer toes are equal in size, while that of the inner is one-fourth longer, and that of the middle, one-third longer than it. The claw of the middle toe is pectinated, the notches being irregular.

The scalings on the tarsi are fine, and five angled, as are those on the webs; on the toes, at the joints, and terminally, the scales extend quite across, elsewhere on the toes they are double.

The outlines of the webs between the front toes are nearly straight, while that between the hind and inner toes is curved outward, and all of the webs grow forward, at point of junction terminally, encroaching on the nail.

The wings are long, narrow, and pointed; the first quill is longest, and the others shorter in gradual succession, the difference between each being about 1.25. In the closed wing, the longest secondary reaches a point between the 4th and 5th primaries. The inner scapularies are but slightly elongated, and are not acutely pointed. Tail, pointed, the two central feathers being one-fourth longer than the next pair, then the gradation is about .75, but the outer are not quite one-half as long as the middle.

Birds in the mixed dress and in the brown plumage, being younger, have the groovings on the bill deeper, and consequently the scalings are more prominent. In this stage, the tail is not as long.

Birds in the first feathers, which have never flown at all, have the groovings of the bill less strongly marked than the adults, the middle toe is but slightly notched, the 2d primary is a little longer than the 1st, and all of the primaries are sharply pointed, but they are at least .25 narrower than those of the adults, while, on the other hand, the tail feathers are not only (excepting the central) longer, but are, at least, .25 broader than those of the

adults, and all the remainder of the plumage is longer. There are no teeth on the bill.

Nestlings in the down at first show a much shorter curve to the bill, and the terminal portion of the lower mandible is more prominent, but as the egg-tooth disappears, these peculiarities gradually merge into the next stage. In assuming the feathers, the primaries and secondaries appear almost simultaneously, when the birds are about half grown, then come the tail feathers, but the birds are as large as the adults, weighing even more, before the body is clothed with feathers. The head and neck retain the down the longest, and it is not unusual to see fully fledged birds with a tuft of down on top of the head.

I will not here give the anatomical structure, as I am preparing a special paper, illustrated, on portions of the comparative anatomy of three members of this genus, *Sula bassana*, *fiber*, and *coryi*, to appear in the second number of "Contributions to Science."

Color. Adult. Primaries, first row of coverts, spurious wing, exposed portion of secondaries, and middle lower wing coverts, dark brown. Remainder of plumage, tinged with creamy, which on the top of the head, and upper tail covers, becomes nearly orange. Outer portion of wing feathers hoary. Bill, purplish blue, more decidedly purple at base. Face and gular sac, bluish, with the latter purple at the base. Iris, brown. Feet, crimson lake. These are the colors in life, but the gular sac dries yellowish and the other parts become paler. Sexes, similar in all stages.

Young. Similar to the adult on head, neck and below, but the upper portions are mottled irregularly with slaty brown, and the outer portion of tail is brownish. An unusual plumage.

Young, 2d & 3d years. Slaty brown, tinged with creamy or yellowish, especially on the head and neck, excepting rump, upper and under tail coverts, and tail, which are white, and many specimens have the lower back also white. Wings, naked parts and iris, as in the adult.

First plumage. Sooty brown throughout, darkest on the wings and tail, with the feathers hoary outwardly on the former, lightest below, and some of the feathers above are margined with lighter. Bill, face, and gular sac, black, the latter tinged with yellow. Feet, very pale yellow.

Nestlings. Pure white, with the down very thick and long. The wing and tail feathers appear long before the others, then follow the

scapularies, then the feathers of the back, then those of the body, while the head and neck are covered last, and the bird has assumed the first plumage as described. Iris, in this and in the last, blue. Bill and feet, as in the last.

DIMENSIONS.

Wing, 14.25 to 15.00; tail, 9.00 to 9.50; bill, culmen 3.15 to 3.40, depth at base, 1.00 to 1.19; tarsus, 1.20 to 1.40. *Charles J. Maynard.*

Climbing Irons.

I suppose nearly all oölogists use climbing irons. They are nice things, very useful and convenient. I remember very distinctly the first time I ever used a pair. When I received them I was not satisfied till I had tried them. So I went out on the hill and selected a stump which looked as if it would be easy to climb. It was a beech about fifteen feet high, with not a limb on it, and as smooth and hard as glass. There was a bluebird's nest in an old Flicker's hole about ten inches from the top. Well, I strapped on the irons and started up; when I had reached the height of about ten feet it suddenly occurred to me that it was very hot and that I had better go down and get my hat or I would get a sunstroke. I have never yet to this day been able to convince my companion that I came down after my hat; he says I fell. When I came to, I got my hat, explained to my companion the dangers of a sunstroke, felt myself all over to see if there were any bones broken, and started up again. This time I reached the top, but found that the hole was too small to get my hand in. I got out my knife, enlarged the hole, and had just thrust my arm in to the elbow when suddenly the irons pulled out. There I was hanging with my whole weight on my arm. After frantic efforts I at last got a hold with the irons, drew out my arm and came down. I did not stand on the order of my coming down but came down at once. To use the words of my companion "I came down on a run." After a great deal of practice I at last got so I could use the irons fairly well. It is an easy matter to climb small trees, but for large trees I use a strap about three inches wide with a snap at one end and rings about a foot apart, so I can shorten or lengthen it at pleasure. By placing this around the tree and bracing yourself by means of it the largest tree can be climbed with ease. Every time I pass that old stump I can almost imagine I smell arnica and see great sheets of sticking plaster.

F. O.

South America.

Messrs. Southwick and Webster:

Dear Sirs: After a very pleasant and uneventful trip, interrupted only by a brief stop at St. Thomas (which, by the way, with the other islands we passed, present a very inviting appearance, perhaps made so in part by our long sail, out of sight of land) we arrived at Para, and I enjoyed the momentary thrill of **LANDING ON SOUTH AMERICA**. I hope that you will all envy me. I want to make the most of my trip, and perhaps the thought that you would like to be here will offset my longings for the land of protection. Protection, good! the minute I landed I got it. I tell you the heathen are fully up to home civilization. Why, it really seemed as if I was actually in an American port. The manner the officials went for me was a caution. They taxed everything, even to a button that dropped off while I was swelling with —.

Perhaps you will be pleased to know how much it cost "to clear." Well, I enclose you four pages of foolscap of items: I have written it fine as paper is scarce.

As soon as possible I called upon Mr. Norton, with whom I partook of my first meal on shore. Mr. Norton is one of the leading business men here; may his success equal his courtesy. [Mr. Norton is a Hyde Park, Mass., gentleman.]

Instead of leaving Para the same day I arrived, it took three days for the energetic custom house officials to pass my goods. They draw a fat salary, I presume, and like their fellow craft in the U.S., are as independent as hogs on ice and as slow as cold molasses. However, I suppose it protects.

Leaving Para the third day I arrived at Santarem, on Sunday afternoon, and being anxious to get at once about the business for which I had come so far, I commenced to cast about for quarters outside the town. These I secured in the shape of a mud hut with a thatch roof. Across one corner I have stretched my hammock. My long drying and general utility table occupies the centre of the room, the four legs each in a pan of water to keep away the too familiar ants. A shelf across one end holds my tin cans of coffee, sugar, farina, etc., and these with my tin trunks holding my wardrobe and working outfit make up the furniture. I am seven miles from Santarem, and an ox team brought me here with my traps. These plantations are not thickly settled. My nearest neighbors are an Indian

and an American family from Tennessee, and they are a mile away.

I suppose you are anxious to know what is the prospect for successful collecting. You may rest your minds easy on that score. At present the birds are said to be away in the bush (where they cannot be followed), and there are no desirable insects, for there has been no rain for many months and everything is dried up. The rainy season is expected directly and then everything will spring into life. I have examined the collection of butterflies made by a young American, and from what he says I hope to obtain six or seven thousand butterflies and beetles, but of course that is only guessing.

I shall remain until I have accomplished the objects of our venture—several thousand skins, insects and shells, some ethnological material, and as much more truex as I can lay hands on. It will take at least a year and after that Brazil is not large enough to hold me. It is the most forsaken country I have struck. If you buy anything here, you have to pay for the factory that made it. Arsenic and fine cotton cannot be found at any price. Nails are 25 cents a pound, a 38 cent box of primers \$2.50, powder \$1.00 a pound, and buck shot (the only size to be had) is 16 cents a pound. Fruit and vegetables are not for sale, and people live for the most part on chips and sawdust, that is fish and farina. Out here in the country I live much better than they do in town. The past week I have twice had pigeons, a broiled coatiá, and a roasted monkey. How is that, eh?

I have grumbled awhile and will now write about business. For my first ten days I have only 103 bird skins, including Crimson Tanager, Tropic, two kinds of Toucans, three of Paroquets, the Yellow-breasted and the Yellow-rump Cassicans; a very handsome Oriole, Jacamar, Fork-tail Flycatchers, Jacana, and a fine Woodpecker, black with brown breast, a red cockade, and white beak, etc. For the last five days I have been terribly troubled with prickly heat and chafing, and this has prevented my getting about as rapidly as I could wish.

So far I have found only two kinds of shells, one a large *Helix*, the others about an inch and a half long. I made a skin of my Coatiá, but my neighbor's dog took hold of it afterward and made a specimen out of it in half the time it took me to do it. The life of a collecting naturalist is not altogether a happy one, any more than a policeman's.

I made a nice skeleton of a Stink-bird (*Opisthomus cristatus*). This strange bird is the subject of some remarkable statements (see Standard Natural History, published by S. E. Cassino & Co., Vol. IV., page 197). I put it behind the house under a box with a heavy log on top, an invitation to the ants to assist me at skeleton making. In the morning I found a Jaguar had been there and the skeleton was gone. An Indian has just offered to me a large Onca skin (Jaguar), if it is a good one I shall buy it to-morrow.

I have taken one long trip with my neighbor from Tennessee. We started for the Campo bright and early. After entering the forest road we came upon a flock of small Paroquets, feeding in a mango-tree. A charge from my auxiliary barrel killed four at one discharge—very good for the little barrel with only one-fourth drachm of powder and one-tenth ounce of shot. Before I had those birds ready for carrying I looked overhead and there was a little Crimson Tanager. We dropped him, and a little further on came across two very handsome Hawks. My friend shot both, and they dropped about twenty feet from the road. I started to get them, and then had my first experience with a Brazilian forest. It took me nearly half an hour to cut my way to them with my large knife, and then I found only one.

Shortly afterward we came to the Campo, a level tract of country covered with rank vegetation, about up to my shoulders. It is now under water for some distance from the river and is a favorite place for alligators. During the rainy season this whole tract will be completely under water. When we struck the marsh land my companion waded right out into it. I was surprised and considered it a little dangerous, but you can wager I did not say so. I was anxious to keep my shoes dry, so off with them and followed after with the water knee deep and the reeds higher than our heads. A large duck started out and I wanted it for supper. My friend dropped it, and an alligator got away with it before we could put in a protest. I was afterwards informed that this wading trip was made simply to try my nerve, and that a canoe would be taken next time.

Near the river are spots of raised ground called "liars." They are well-wooded, and full of birds. Thousands of pigeons flew away at our approach and we secured half a dozen for supper. I found the nests of some Ground Doves; secured a set of two eggs and a set of

Whip-poor-will. I shot the old bird and she had about three feathers on her, but I kept the skin "just the same." We shot some Jacanas and Fork-tail Flycatchers, but they were in very poor plumage. In all, we obtained 58 birds with 57 shots, and again I had a tropical experience, for a full third of them were too ragged for specimens, and being very tired and irritated by the heat, I rested too long, my birds became soft, and only 17 good skins could be saved. I can do better next time.

I shall be ready to make a shipment just as soon as I receive your reply to this letter. Let me know of any things that you wish particularly. The Brazilian government claims the right to examine all outgoing packages in search for smuggled rubber, and in this way scientific collections are liable to damage. We can only take our chances with the others, and as my boxes will contain nothing contraband, trust to good luck.

W. H. Smith.
Santarem, Brazil, Jan. 25, 1889.

Notes from Genesee County, Mich.

On October 10, 1888, a Black Vulture was shot near this place by Dr. Green, and is now in my possession, which is, as far as I am aware, the first record of its being taken in this vicinity.

LATE NESTING OF THE GOLDFINCH.—On September 28, 1888, I found a nest of the Goldfinch, containing two fresh eggs. Nest placed on shock of corn; did not find it until the eggs were broken.

OCCURRENCE OF RARE BIRDS.—On January 11, 1888, I shot eight out of a flock of Red Crossbills, which are the only ones I have ever met with; and on January 26th, a friend brought me one male and two female Evening Grosbeaks.

CURIOS FREAK OF A ROBIN.—In the spring of 1888, while I was building a tool-house, a pair of robins located a site for a nest on one of the girths and had nearly finished it when it was accidentally knocked down, whereupon they immediately began building on the purlin plate and continued their work until they had twelve nests under way in all stages of completion, from a mere beginning to the finished nest (three of them being completed), when the female was shot by some boys, which ended their nest building.

Samuel Spicer.

Goodrich, Mich.

Remarkable Flight of Killdeer Plover.

On November 25th, the New England coast was visited by one of the most severe north-east storms that has occurred for a number of years; when for more than sixty hours the wind blew a gale from the east accompanied with rain, sleet, and dense fogs.

On the night of the 28th, the surfmen, while out on their patrol on the beach, heard the peculiar cry of a bird strange to them.

From their description of it I thought it that of the Killdeer, and during the early morning I saw two near the station and succeeded in capturing one. On going out on the beach soon after I found the birds very plenty, sometimes singly, and in pairs, but oftener in flocks from ten to twenty. They were very tame and seemed to be tired out, and instead of running out on the beaches looking for food they were in some sheltered place among the sand hills.

I shot twelve of them, and could have killed many more; those that I got were very poor in flesh, but all were adult birds.

They were very plenty on the beach for some four or five days, when they left as suddenly as they came; and from reports I have heard they were very plenty on all parts of the Cape, at this time. On December 1st I had occasion to go to the town of Harwich, and I found the birds in every old field, and even in the public roads, and without doubt they could be found at this time back at the uplands, but none were seen on the beaches after the fifth day of their first making their appearance.

The Killdeer is a very rare bird on this part of the cape. I have hunted on the beaches, flats and uplands for the past twenty-five years, and never saw but one of them before, which I shot in August, 1886.

While the Killdeer is somewhat irregular in its migratory habits, it is certainly not a maritime bird, and just why an easterly gale should bring them on the coast seems very strange, as certainly everything in this case points that way, not only the lateness of the season and the actions of the birds during their short stay, but by their having never been here during the past quarter of a century, in many numbers, and then immediately after the storm. Perhaps some of the many readers of the O. & O. can give us some information, if so, I should be pleased to see it in the columns of that paper at some future time.

On January 9th, I saw a pair on Monomoy Island, and on January 15th saw another pair

in about the same place, possibly may have been the same ones. On January 18th, saw a pair on Morris Island; since that time have not seen any in this vicinity, or heard of any being seen, and think them very rare if any. On February 3d, saw a *Least Tern*; it came by me within easy gun shot, and am very certain I could not have been mistaken as I have had a large experience with them, but never before saw one at this season of the year. We are having very good shooting, and have had all winter.

N. E. Gould.
Chatham Life Saving Station, Dec. 8, 1888.

On November 27th, during the severe north-east gale, twenty Killdeer Plover made their appearance at Hampton Beach, where I saw them nearly every day up to December 25th, on which date the last one was seen. They seemed to prefer the few acres of tillage land lying between high water mark and the vast extent of marsh, avoiding the latter place and the sandy beach. Single birds were seen frequently on the highway. On December 25th, rode past a Killdeer, who merely moved a few feet to one side in order to avoid the wheels of the carriage.

Four specimens that I secured were quite fat, showing that they had not been deprived of food for any length of time. In each instance the stomach contained a few small red beetles, sand fleas and a quantity of gravel.

This species being very rare here attracted considerable attention. One old fisherman remarked that he had not seen a flock of Killdeer before for more than a dozen years. It would be very interesting to know from whence they came and the cause of their being here so late in the season. I was glad to see reference made to this in the December O. & O., and think when the notes of observers in different localities are brought together much light will be shed on the subject.

S. Albert Shaw.

Hampton, N. H.

European Thrush and Lawrence's Warbler.

I have the honor to report the capture of the European Thrush (*Turdus pilaris*), which was shot near this place in March, 1888. I believe it is the first bird of this species recorded. I also have the following list of Lawrence's Warbler (*Helminthophaga Lawrencei*), none of which have been reported: May 12th, 1886, ♂; May 23d, 1888, ♀; May 25th, 1888, ♂.

Wm. H. Hoyt.

Stamford, Conn.

A Philadelphia Collection of Eggs of the Raptore.

Aluco flammens americanus. American Barn Owl. One set of ten eggs, one set of seven, one set of six, two sets of five. Total: five sets, thirty-three eggs.

Asio americanus. American Long-eared Owl. One set of seven, three sets of six, one set of five, one set of four. Total: six sets, thirty-four eggs.

Asio accipitrinus. Short-eared Owl. One set of four.

Strix nebulosa. Barred Owl. Ten sets of three, thirteen sets of two. Total: twenty-three sets, fifty-six eggs.

Strix nebulosa allenii. Florida Barred Owl. Two sets of two. Total: two sets, four eggs.

Strix occidentalis. Spotted Owl. One set of two.

Scops usio. Little Screech Owl. Four sets of six, three sets of five, three sets of four. Total: ten sets, fifty-one eggs.

Scops asio floridanus. Florida Screech Owl. Two sets of three. Total: two sets, six eggs.

Scops asio macroura. Texan Screech Owl. Two sets of four. Total: two sets, eight eggs.

Scops asio maxwelliae. Rocky Mountain Screech Owl. One set of four.

Bubo virginianus. Great Horned Owl. Five sets of three, four sets of two. Total: nine sets, twenty-three eggs.

Bubo virginianus subarcticus. Western Horned Owl. Three sets of two. Total: three sets, six eggs.

Bubo virginianus saturatus. Dusky Horned Owl. One set of two.

Surnia funerea ulula. European Hawk Owl. One set of seven.

Speotyto cunicularia hypogaea. Burrowing Owl. One set of eleven, four sets of ten, six sets of eight, one set of six. Total: twelve sets, one hundred and five eggs.

Micrathene whitneyi. Whitney's Pigmy Owl. Three sets of three, one set of two. Total: four sets, eleven eggs.

Hierofalco gyrfalco caniceps. White Gyrfalcon. One set of three.

Hierofalco gyrfalco islandus. Iceland Gyrfalcon. One set of two.

Hierofalco gyrfalco sacer. McFarlane's Gyrfalcon. One set of two.

Hierofalco mexicanus polygnus. Prairie Falcon. One set of five, one set of three, one set of two. Total: three sets, ten eggs.

Falco peregrinus naevius. American Peregrine Falcon. Two sets of three. Total: two sets, six eggs.

Æsalon regulus. European Merlin. One set of four.

Æsalon columbarius. Pigeon Hawk. Two sets of four. Total: two sets, eight eggs.

Tinamoculus sparrius. Sparrow Hawk. One set of six, fourteen sets of five, twelve sets of four, one set of three. Total: twenty-eight sets, one hundred and twenty-seven eggs.

Tinamoculus alaudarius. European Kestrel. Four sets of six, three sets of five. Total: seven sets, thirty-nine eggs.

Polyborus cheriway. Caracara Eagle. Seven sets of three, eight sets of two. Total: fifteen sets, thirty-seven eggs.

Pandion haliaetus carolinensis. American Osprey, Fish Hawk. One set of four, thirty-six sets of three, two sets of two. Total: thirty-nine sets, one hundred and sixteen eggs.

Elanoides forficatus. Swallow-tailed Kite. One set of two.

Elanus glaucurus. White-tailed Kite. One set of four, one set of three. Total: two sets, seven eggs.

Ictinia subearctea. Mississippi Kite. One set of two.

Circus hudsonius. Marsh Hawk. One set of seven, one set of six, three sets of five, two sets of four. Total: seven sets, thirty-six eggs.

Accipiter cooperi. Cooper's Hawk. One set of six, three sets of five, eleven sets of four, one set of three, two sets of two. Total: eighteen sets, seventy-two eggs.

Accipiter fuscus. Sharp-shinned Hawk. One set of seven, three sets of five, eleven sets of four, three sets of three. Total: eighteen sets, seventy-five eggs.

Astur atricapillus. American Goshawk. One set of three, one set of two. Total: two sets, five eggs.

Astur atricapillus striatulus. Western Goshawk. One set of three, one set of two. Total: two sets, five eggs.

Antenor unicinctus harrisi. Harris's Hawk. Three sets of three, one set of two. Total: four sets, eleven eggs.

Buteo vulgaris. European Buzzard. One set of four.

Buteo borealis. Red-tailed Hawk. Three sets of four, eight sets of three, twenty-five sets of two. Total: thirty-six sets, eighty-six eggs.

Buteo borealis krideri. Krider's Hawk. One set of three.

Buteo borealis calurus. Western Red-tail. One set of three, three sets of two. Total: four sets, nine eggs.

Buteo lineatus. Red-shouldered Hawk.

Thirteen sets of four, thirty sets of three, fifteen sets of two, one set of one. Total: fifty-nine sets, one hundred and seventy-three eggs.

Buteo lineatus allenii. Florida Red-shouldered Hawk. Five sets of three, two sets of two. Total: seven sets, nineteen eggs.

Buteo albicaudatus. White-tailed Hawk. Three sets of two. Total: three sets, six eggs.

Buteo swainsoni. Swainson's Hawk. Two sets of three, five sets of two. Total: seven sets, sixteen eggs.

Buteo pennsylvanicus. Broad-winged Hawk. One set of four, six sets of three, ten sets of two. Total: seventeen sets, forty-two eggs.

Archibuteo lagopus saurci-johannis. American Rough-legged Hawk. One set of four, one set of two. Total: two sets, six eggs.

Archibuteo ferrugineus. Ferruginous' Rough-leg. One set of two.

Aquila chrysaetos canadensis. Golden Eagle. Two sets of two. Total: two sets, four eggs.

Haliaeetus leucocephalus. Bald Eagle. Three sets of two. Total: three sets, six eggs.

Haliaeetus albicilla. Gray Sea Eagle. One set of two.

Cathartes aura. Turkey Buzzard. Thirteen sets of two. Total: thirteen sets, twenty-six eggs.

Catharista atrata. Black Vulture. Fourteen sets of two. Total: fourteen sets, twenty-eight eggs.

RECAPITULATION.

Total number of sets, four hundred and twelve. Total number of eggs, thirteen hundred and fifty-eight.

Pacific Coast Ornithologists.

An informal meeting was called of the ornithologists within reach of San Francisco, at the California Academy of Sciences, January 19, 1889, by Mr. W. E. Bryant, to band together for the mutual benefit of studying the little known habits of bird life, in relation to the good, instead of detriment to the agriculturist and horticulturist.

Those present at this, the maiden meeting of west coast ornithologists, were W. E. Bryant, F. W. Andros (Taunton, Mass., whose genial face we were all pleased to see among us for the first time), C. A. Keeler, Berkeley, Cal., formerly Milwaukee, Wis., T. S. Palmer, Berkeley, Cal., W. O. Emerson, who was bound to be among us on his canes after his long illness, R. H. Taylor of Alameda, Cal., William Flint, Oakland, Cal.

These seven came together for interchange

of thoughts, and to form a system of study of the Pacific coast birds and their distribution, as well as foods at different times of the year. Mr. Bryant showed a small series of stomachs and crops, sent him for identification of contents. If this study is carried out it will prove of the greatest benefit to grain and fruit growers of the Pacific coast. The discussion of this subject, i.e., bird foods and how to preserve them, drew out some good ideas. Mr. Bryant's samples had been put in alcohol, such as were soft, then dried, for use under the microscope for determination. Samples of the crop of California Partridges showed wholly of grape seeds, some again of grain seeds, many of different weeds. These are carefully labelled according to data and name of bird and condition at time of the bird being taken.

Mr. Emerson proposed that each ornithologist take up, say, a family of the most abundant species in his locality, as *Iabia*, or *Melospiza*, *Raptores*, *Strigidae*, or any of the insect eaters, study their foods well through the year, that given the young, etc., and make out a report of observations, call a general meeting at end of year of all interested, old heads and young, then compare notes, submit our specimens, and by so doing get the greatest amount of good by banding together with a system.

Another meeting is likely to be called early in May, on Mr. Bryant's return from Lower California. Many thanks are due to Mr. Bryant for use of room at the Academy.

An Observer.

Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

We are informed of the death, at Albuquerque, New Mexico, of Mr. E. S. Bowler, of Bangor, Me., at the age of thirty years. Mr. Bowler will probably be remembered by many of our readers as a well known taxidermist. In September of 1882, he opened a store on Main St., Bangor, Me., where his superior work soon gained for him a wide reputation, and he supplied the Maine collection at the New Orleans exposition. Becoming affected by lung troubles, he, in August, 1887, sold his business to Mr. S. L. Crosby, and went to Colorado Springs, with no good effect, thence to Albuquerque, where his health was much improved. He then removed to Las Vegas, where he was thrown from a horse and badly hurt. He partially recovered and went back to Albuquerque,

where he contracted a severe cold, and died of congestion of the lungs. His body was brought home and buried from the residence of his father, Mr. L. A. Bowler. He was a member of Conoduskeag lodge, K. of P.

Brief Notes.

"Up like a rocket, down like the stick."

The New York Academy of Sciences requests us again to call the attention of our readers to the proposed Audubon monument. It will require about \$10,000, of which amount they now have only about \$900. On page 8, American Ornithological Union Bulletin, No. 2, we find it stated, that under the auspices of the *Forest and Stream*, the Audubon society had in the first ten months of its existence enrolled 15,000 members; considering the usual spread of contagion, at the rate it started, it must now number several million, and it is presumed that they are mostly crowded in and about the vicinity of Park Row. Now we suggest that this multitude, whose minds are of one accord, be appealed to; let them again go through the formality of signing the document. (They need not fear the promissory note trick as we are assured those stories were merely a naughty guy), and let it this time be a subscription to the Audubon monument. A very small sum from each will accomplish the work. Should this suggestion be followed and the result prove fatal to the organization, perhaps in consideration of the attempt, their epitaph would be allowed on one corner of the base. We trust that the prospects of our hint being followed will not, however, deter our readers from giving their individual support. Remittances should be made to Dr. N. L. Britton, Columbia College, New York City.

Wanted—A Sea Serpent.

Not what a man earns, but what he saves, counts.

Andrew Downs has just mounted a ♀ Meadow Lark, taken at Halifax Harbor, Nova Scotia, Feb. 16th. A rare bird there.

A taxidermist who would refuse to give a word of information where it would be of assistance to another of the craft is very narrow minded.

A ♂ Pintail Duck was killed on Lynn, Mass., marshes, Feb. 21st. There were twelve in the flock. A. M. Tufts.

Some of our best workmen (in their own estimation) could profit by studying the productions of those they ignore.

We received from Messrs. Bellows & Son, Littleton, N. H., a series of very fine Stereoscopic views. We understand that they propose to add a series with ornithological subjects to their stock.

Great Scott! Is that so? Birds exterminated in some sections of Florida?

In last issue we published a clipping from a daily, which is going the rounds, to the effect that there are only five specimens of the Labrador Duck in the country. Now, if we are not laboring under a false impression, Mr. C. B. Cory has at least four in his collection in this city, and we do not think that these are all to which our attention has been called.

We do not believe that there is any practical way of preserving birds for the cabinet except by the use of Arsenical Soap, or the dry arsenic. We prefer the former on the grounds of safety to the users.

We understand that Mr. Chapman of the American Museum of Natural History, New York, has gone to Florida on a collecting trip. We presume that he will devote some time to the study of herpetology.

A taxidermist who recently returned from a short trip is very loud in his praise of the courtesy shown to him by Mr. Jenness Richardson of the same institution.

The strength of a ridiculous law is expended in its making.

We have, awaiting publication, quite a number of articles, including "Birds of Chester County," C. B. Ressel; "Shore-bird Migration, 1888," J. C. Cahoon; "Colorado Birds," continued, C. F. Morrison. Our limited space necessarily, many times, causes considerable delay before we are able to insert long articles.

When this number reaches our readers the collecting season will have opened. Success to you.

Harry Austen, writing of a day's trip in the vicinity of Halifax, the middle of February, says, "The day was perfect—I saw nine Robins, flocks and flocks of the White-winged Crossbills, also numbers of the Pine Grosbeak, Nuthatches, Creepers, Purple Finches, Chickadees and Kinglets; in fact the woods seemed full of life."

"I cannot do without this valuable magazine of Natural History" [The O. & O.]. Albert Lano. We could fill the entire number with similar expressions. Help us to make it more and more valuable.

New Publications.

A catalogue of Birds of Nova Scotia, by Andrew Downs, Corr. M. Z. S., edited by Harry Piers, president and treasurer of the Natural Science Society, Nova Scotia. This is a list of 240 species; nearly all of which have come under the author's observation during his sixty-six years of practical field work. During the period of his experience, no doubt, there have occurred many opportunities for making valuable records. Mr. Downs states that he is not a book naturalist, and under such circumstances, the rendering of the list deserves great credit. While it may be complete so far as his experience reaches, we are inclined to believe that there are a number yet to be added. The report of a Florida Gallinule by Mr. H. Austen in January O. & O., is at least one addition. We hope that some of the other ornithologists in the locality will unite their experience with Mr. Downs, and at a future date present a revised list with full statistics.

Correspondence.

Editor of O. & O.:

Dear Sir: Perhaps it would be of interest to you and the readers of the O. & O. to know

how others view the work of your magazine since coming into your hands from Mr. Jos. M. Wade.

To review, its beginning life was on March, 1875, as the Oölogist, under the management of S. L. Willard of Utica, N. Y. An eight page small octavo sheet. Soon an assistant editor was called in, Mr. Jos. M. Wade, who in Nov. 1879 took entire charge of the pigmy Oölogist, and increased the size of the pages March, 1881. For a full account of the trials and misfortunes of the young editor's efforts (S. L. Willard,) see Vol. VI, No. 1, first page.

As we see the magazine now in its neat and showy cover, with clear type pages, the O. & O. stands among the first of its kind, as an authority on bird life, and is looked for by young and old, whether student, naturalist, hunter or artist. Its record as a manual of field Ornithology and Oölogy is known far and wide.

All I have met of the Pacific coast readers, and they are not a few, speak of the O. & O. in the highest terms, and only regret that there is not more of it and oftener in its visits. It is adapted to all classes of bird lovers, whether they be one with a cage bird or the hunter, who only gets a "Mud Hen" on his lonely tramps after web-footed kind. By the steady progress it has made since it fell into Mr. F. B. Webster's hands, January, 1884, with its sixteen pages it stands one of the foremost "American magazines" on bird life. I know all of its western readers will join me in wishing a long and successful, as well as a useful life to the Ornithologist and Oölogist.

W. Otto Emerson.

Fruit Green Home, Haywards, Cal.

Editor O. & O.:

The January issue just received is fuller than ever of most interesting articles. Mr. Chadcock's article on retention of eggs is especially full of entertaining thoughts. Let us hope that sometime when he is "dissecting an old hen and finds some rough uneven substances floating round loose in the abdominal cavity" he will preserve and forward them to one of our *high scientists*. Even they may be somewhat puzzled. And I must also beg to call his attention to the fact that it was not my old hen that was in the tub. It was Tim's mother's hen. I never owned but one hen and that was a game rooster. Besides that I did not know the egg. Tim did, and he didn't tell me how he knew either. If I ever see him again I will ask him.

There has been a most unprecedented flight of snipe here during the past week. They have actually overflowed the ponds, and are walking about in all sorts of places. I shot one this morning with a collecting pistol from my front door. If they get in much thicker they will trample down my early peas. Friend C. W. C. can tell you something about our snipe shooting down here, but now there are a dozen times as many as when he was here in the Christmas holidays. Yours truly,

Walter Hoxie.

Frogmore, S. C., February 10th.

THE COLORADO BIOLOGICAL ASSOCIATION.

Editor O. & O.:

Dear Sir: The above-named Association was formed for the purpose of fully investigating the Fauna and Flora of Colorado, both recent and fossil. It was first known as the "Colorado Ornithological Association," and the results of its work at ornithology is now being published in the O. & O., in the shape of a "List of Colorado Birds." Ornithologists were, however, found to be scarce in the state, and it was proposed to extend the scope of the Association, which was done, and it is now known by the above title, with thirty-five members, numbering some of the most eminent scientists, both in this country and in England.

Weekly "reports" (semi-popular) are now being published, and special bulletins and an annual report will also be issued, and sent to members free. Meetings will be held as often as possible, and it is intended to form a library and museum at some future day, some of the most active members being now at work upon the same.

The annual subscription is only \$1.00, and for corresponding members 25 cents.

I would respectfully ask all to join, and by writing to our genial secretary, Mr. T. D. A. Cockerell of West Cliff, Col., full particulars may be obtained and a hearty welcome extended. Mr. Cockerell will also be glad to receive any reprints, authors' separates, magazines and publications for the library, which already has many valuable books and papers upon its shelves, with Mr. C. in charge.

The new Association has already done good work, and intends to keep it up. I hope all the ornithologists in the state will join, as our work on ornithology has but just begun, and we need all the workers we can get.

Very respectfully,

Charles F. Morrison.

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—AND—

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No. 4.

Nesting of the Connecticut Warbler.

This handsome and active species (*Oporornis agilis*), though not abundant anywhere, is yet pretty widely distributed over the Province of Ontario during the summer months. At least I have noticed it in the different sections where I have resided, especially where it finds the particular places that it loves to make its summer home and nesting site.

This is generally on the margins of damp, woody lands, or second growth timbered tracts, where there is low, thick underwood, raspberry vines, tangled brush, and fallen trees. It also appears to have a partiality for ravines, sides of small hills, and the margins of creeks, where there is deep concealment. Amidst the thick foliage of such places one kind of the long notes of the male bird may often be heard, while the little performer itself is invisible. At other times he will rise to a considerable elevation, and after a pleasing musical serenade, in which he appears to take much pleasure and pride, he descends rapidly into the leafy underwood near which it is probable his partner has her nesting place.

Another peculiar haunt of this species is partly cleared fields between woods, and where roads are made through patches of forest, but it does not often appear in the open field or near human habitations, nor is it found deep in the woods either of hard or soft wood lands, though as the forest is fast disappearing, it will doubtless also change its abiding places.

In the early settlement of Canada, the little clearing in the backwoods surrounding the pioneer's shanty, where tall weeds, sprouts and vines grew luxuriantly around the stumps, and along the fences, this warbler found many a congenial home and nesting place near the cabin of the settler, or wigwam of the Indian, but with the better cultivation of the farm, and the more extensive destruction of

the original forest, all has become changed, and with these changes the life-histories of many of our wild birds, including the species under review. And in this connection I would remark that it and the Mourning Warbler (*Geothlypis philadelphia*) frequent much the same localities, although in their nesting they differ much.

In its general habits the Connecticut Warbler is shy and retired, and but few of the species are ever seen in company, and but seldom do they leave the shelter of the woods for the deep foliage of their haunts, although occasionally the farmer, who has an eye and ear to appreciate the sights and sounds of nature, may, at any time of the day, see or hear an individual on the margin of the woods, or along the vine-clad fences, near where it makes its summer home. Should the nesting place be invaded the female gives vent to her displeasure in a series of sharply uttered notes, which usually brings her mate upon the scene to offer his sympathy and assistance, and the scolding is kept up until the intruder leaves the vicinity. Sometimes, however, the male seems too distant, or otherwise engaged, to pay any attention to the alarm notes of the female, and she is left alone to battle as best she can with the cause of her discomfort. When, however, the young are in the nest, or are unable to seek their own safety by flight, should one of them utter a note of distress, the male as well as the mother are soon upon the scene, mingling his notes with hers, and equally exercising his arts to drive or draw away the disturber, and no creature can show more affection to its young, or solicitude for their safety than this species of the Warblers.

The scolding note of this bird more resembles the word "vitch" than the "chip"-like note of the other species of warblers, and by this means it may more readily be distinguished, though its person may be out of view amid the deep foliage; while the song

notes of the male, uttered in a clear and pleasing tone as he perches on some elevated branch, seems to resemble the words "rush, rush, rush-o-worry," and by this he is easily distinguished from the Mourning Warbler, although at even a short distance their plumage much resembles each other. There is also this distinction between these warblers, that while the male Connecticut often rises high to warble his ditty, the Mourning confines the display of his musical talents to positions nearer the ground; and the peculiar long note that the former emits, as he sometimes rises on fluttering wings, bears some resemblance to the charming song of the Winter Wren.

Since the early years of our pioneer life in the backwoods of Peel, I have been more or less familiar with the habits of this interesting species, for it was almost the only member of its family that seemed to make its summer home among the fallen and tangled brushwood and partially cleared patches along the banks of the creek that intersected the homestead, where I passed my boyhood days, and for many years it was known to me as the Linnet, because some of the older members of our family stated that it resembled the bird known by that name in our native land, and I must more often have seen its nest and eggs than I now can call to remembrance.

The first nest of this species that I now recollect to have seen was on the margin of a wood, separated from the clearing by a brush fence into which the bird darted, when an elder brother and I flushed her from her nest. This was placed in a small cavity in the side of a little bank, much like where a Slate-colored Junco (*Junco hyemalis*) would choose for her nesting place, and was composed of similar materials to those which that species uses. This contained six eggs. A year or two after this a friend of ours who then owned the neighboring farm, and who knew that I was interested in birds, informed me that when clearing some new land he had found the nest of a very strange bird. Anxious to see it, I went with him to the bush, and on approaching the place, to my disappointment, out flew the warbler. This nest contained but three eggs, and was placed in a space among the roots of a clump of swamp maples that were growing by the side of an old moss-covered log.

Years passed away, and coming to this section of the country, and devoting more time and attention to the life habits of our wild birds, I noticed that this species was a com-

mon summer resident on the margins of most of the low wooded lands in this vicinity, and one day in the early part of June, about nine years ago, when rambling in a piece of low woods, I found the first nest of this species that I had seen for many years. This was sunk in the earth, near a turned-up root, but without any particular shelter. It was composed mostly of fine, dry grass, and contained six eggs which I took, but ignorant of their value I gave them to other parties.

Another nest of this species that I found in the same wood was taken on the eleventh of June, 1886. I had, in company with one of my boys, flushed the bird, and her notes and manner told me that her nest was near, but at the time I failed to find it. Returning that way some hours afterwards, I cautiously approached the place where I thought the nest was concealed, and in passing the side of a low cedar root, I again flushed the warbler. A momentary search revealed the nest in a crevice of the root. This was composed of dry leaves, stalks of weeds, fine grass, and some fine hair. Owing to its position, it was more bulky, but rather loosely composed, than the other nests of this species that I had observed, and seemed to indicate that when this warbler made her nest anywhere else than in a hole in the ground, she does not make so neat a job of it.

This nest contained five eggs about half incubated. One was broken in preparing them, but the other four are in my collection, and in every particular they are almost identical with those of the Mourning Warbler (*Geothlypis philadelphica*). They have the same clear whiteness of hue as those of the nuthatches and chickadees, but the reddish-brown dotting is more confined to a circle near the large end, although there are more or less of these spots scattered over the surface. Compared with those of the more familiar Black and White Warbler (*Mniotilla varia*), they are more globular, but not so oblong as those of the Canadian Warbler (*Myiodioctes canadensis*).

On May 21, 1888, I heard for the first time the song notes of this bird, and soon after saw the little musician perched towards the top of a swamp elm, about fifty feet from the ground, repeating with great animation his "rush, rush-a-worry." Next morning I was surprised but pleased to hear the notes of this species in our garden, and upon a nearer approach found it engaged in a tussle among some bushes with a Red-eyed Vireo (*Vireosylvia olivacea*). From this contest it appeared to come off

second best, but rapidly repeated its song notes as it took a hasty departure. On May 24th, being out on a ramble I noticed the songs of these birds in various places, on the borders of low wood lands, and during the rest of the season they appeared to be tolerably common, but I failed to find any nests.

William L. Kells.

Listowel, Ontario.

How Many Eggs can a Bob-white Cover?

The above query occurred to me lately when I received a set of twenty-eight eggs of the Bob-white (*Ortyx virginiana*). They were all found in one nest, though whether they were all laid by one bird is a question that cannot be answered. Certain it is that the Bob-white lays a very large clutch, but whether one hen could lay twenty-eight eggs is very doubtful.

The eggs of this species are very small in proportion to the size of the bird, and their shape enables them to be closely placed together in the nest, but twenty-eight of their eggs cover a circle of at least six and a half inches diameter, and it is extremely doubtful whether the bird could cover them all when sitting.

J. P. N.

Green Eggs of the Red-tailed Hawk.

The eggs of the Red-tailed Hawk (*Buteo borealis*) have a ground color which varies from white through grayish-white to a faint bluish-white, but a set of eggs of this species which exhibit a decided greenish tint must be considered a novelty.

Such a set has, however, been taken, and they are now before me. They were collected on April 22, 1888, by the celebrated oölogist "J. M. W." (Mr. C. L. Rawson) in New London County, Connecticut, and fully identified.

The ground color is of a pale, but decided greenish tint, and both the eggs are spotted near the ends with fawn color. The greenish tint of the ground color is distinctly perceptible, especially by daylight, and is all the more remarkable when seen in a large series of eggs of this bird. Out of thirty-six sets now before me (containing eighty-six eggs) these two are the only ones which approach to a greenish tint.

As if to make the set still more remarkable one of the eggs is a decided runt, and only measures 2.01 x 1.60, while the other is of normal size, and measures 2.37 x 1.85.

J. P. N.

Parakeets.

I pitched my camp on the Locosumpo-hatchee after a long day's tramp across the prairie from the old Ft. Ivan settlement. Wolf signs were so plenty that I lost no time in collecting a good supply of dry wood. While thus engaged a shrill scream overhead made me suddenly look upwards, and I caught a glimpse of the flashing green plumage of a flock of Parakeets, as they dashed by in the direction of Lake Okeechobee. I was just regretting that I hadn't my gun in my hand when another smaller flock settled in a tall tree right over my camp. I slipped cautiously back from tree to tree, but just before I could grasp my gun the whole flock took wing again. I chanced a long shot, however, and was pleased to see one bird flutter downward and catch in a low cypress about a hundred yards off. I started to climb for him and when about half way up my shot belt became entangled in some way, and it took me quite a while to unbuckle and disengage it. I hung it on a limb, and looking upward again there was the whole flock perched around their wounded comrade. I was afraid to descend again for my gun lest the bird I had already hit should recover sufficiently to get clear away. I got right among the gaudy birds before they again took flight. When I extended my hand to catch my pretty little specimen what was my surprise to see him quietly reach his bill down to my sleeve and then crawl along it to my shoulder. As he did not seem inclined to let go I climbed down with him still hanging on, but when I got to where I had left my belt I couldn't find it. After a little search I discovered that it had dropped into the bed of the creek, and the likelihood was that my shells were all soaked and spoilt.

While I was building my fire an Indian came up and, after the usual salutation, consented to camp with me. He had venison and potatoes, and I had coffee and hominy, so we had quite a luxurious meal together. After supper we smoked a "friendship pipe," and chatted till late. I was already moderately proficient in Seminole and he knew a little English, so we got on nicely. He was pleased to see me hunting bare-legged like himself and asked me if I wanted more Parakeets. Finding that I did he said he would go down to the lake with me and show me their tree. In the morning I inspected my ammunition and found that I had just two loads of eights safe

and dry and four loads of buck shot. I unloaded two of the latter and recharged them from the soaked shells with eights, and we started on our tramp.

That day was full of incidents. My little "Keet" found my belt a more convenient perch than my shoulder and took up his position there for the rest of the trip. My guide, who called himself Billy, kept picking up acorns and feeding him, and they were continually calling and answering each other. We met a large hunting party of Mikasukies who had come up from the Big Cypress, southwest of the lake. I could not distinguish much difference in their dialect, though the general tone seemed to be harder than the Seminole. We nooned at the famous Billy Bowlegs battle field. My friend Billy explained that the redoubtable old fighter was an ancestor of his, and showed the relationship by means of three dots, thus: :: The lower one was his (the speaker's) mother, that above it was her mother, and the one beside it was her brother, Billy Bowlegs. He then informed me that his own name was Postapolinch.

All the afternoon we waded through a cypress swamp, and when night approached the Parakeets began to pass in large flocks. Their tree, as Billy called it, is a large hollow cypress about five miles from the lake, and probably a mile and a half east of the main course of the Looesumpohatchee. Large numbers come here to roost every night. Billy says that there is only one small hole for them to go in at, but it was too dark when I got there to determine much with certainty. I could only secure as many specimens as my ammunition would allow, and then back out of the swamp and make camp. Billy insisted on a regular sharing of the birds between us and then bartered his share back to me, except one. Then he held a pair of splinters for me to skin by and asked me many questions as I worked.

Late in the night I heard him stirring about, and in the morning he showed me a skin that he had made up while I slept. I can assure you I couldn't do any better myself. The only trouble was that he had not determined the sex.

Next day I started for the settlement and Billy went part way, and then started off to join the Mikasukies. They had fired the prairie and were making a big hunt, which was a little unfortunate for me, as my route was dead to windward and right into the fire. I had to stop and "make a burn" on my account and in doing so managed somehow to

lose my note-book, glasses and shoes. Getting into the settlement barefooted was a difficult matter, and I still have caetus thorns in my feet that I trod upon that night.

But my little "Keet" stuck to me all the way and is now on my shoulder as I write. I hadn't the heart to make a specimen of him.

Walter Hoxie.

The Tables Turned.

We have doubtless, all of us, heard the oft-repeated tale of the Eagle robbing the Osprey of his hard-earned meal, but it has never come to my notice that the national bird of our country was in turn despoiled by the Osprey.

During a conversation with Mr. W. F. Anbens of this city, he alluded to this fact and related the story to me.

In his boyhood days, some twenty-five years ago, in the town of West Bath, Me., there was an immense pine, which for years held the nest of a pair of Eagles, and as it stood in a clearing, the birds could not be approached without being disturbed, and so enjoyed their home in peace, in spite of the gunners.

One day, while standing in the door of his father's house, he was a witness to a battle between this pair of Eagles and four Ospreys, who, as developments proved, envied the birds their home and desired to appropriate it to their own uses.

It seemed to be a preconcerted affair, as each Eagle was assailed by two Ospreys, and the attack well managed, as one assailant would pounce upon the larger fowl, quickly followed by the other, as if they understood the theory of successive flank attacks. The battle continued until the Eagles were driven from the field, and the smaller birds then proceeded to take possession of the tree.

Their victory was short-lived, however, as a stronger enemy, in the shape of the farmer, who owned the tree, and who was angry at the defeat of his pets, the Eagles, appeared upon the scene, and cut down the old monarch of the forest, that the Ospreys might realize no benefit.

This pair of Eagles went to another tree, not far distant, and built another nest, but it was situated in the woods near the highway, and the gunners from the city could creep up through the underbrush and pop at them with their rifles, which finally drove the birds away to more secure places of peace and quiet.

F. A. Bates.

A Collecting Experience with Great Horned Owls and Swainson's Hawk.

Three miles north of the village of Bernadotte lies about a half section of enclosed timber and brush land, so rough and cut up by hills and hollows that the former owners have not considered it worth the outlay of labor required to clear it up for agricultural uses. All the large timber has been cut down and removed, except where it is growing in deep hollows. This locality is a favorite collecting ground of mine, and from it each season I obtain two or more sets of hawks' or owls' eggs.

Having previously, in my night rides, heard owls hooting in these woods, I started on a search for nests late in the day of February 8, 1888. There was a keen north-west wind full of flying snow, with the thermometer registering close to zero.

Knowing the natural inclination of the *Bubos* to occupy the same nesting place or locality for several seasons, I went straight to a nest in a leaning white oak tree, from which in 1887 I collected a set of three Great Horned Owl's eggs. As I came to the brow of the hill, the nest far below was at once seen to be occupied. The tree on the upper side was covered with a thick coat of ice, but, with the aid of a pair of sharp climbers, the ascent was made without much difficulty, except very cold fingers. The owl did not leave the nest until one-half the distance to it was climbed, which led me to suspect young birds. But this fear ineckily was not to be realized, for in the nest were found three eggs very much stained and soiled. Although the female remained nearby hooting and snapping her bill, the male did not put in an appearance.

The eggs were put in a mitten to which a cord was attached, and lowered safely to the ground. On blowing, they were found to be about one-half incubated, and by a thorough application of soap and warm water the stains and dirt were removed, until they were as white and handsome a set as one would wish to see.

Returning to these woods on March 14th, I set to work searching for *Buteos'* nests, having a few days previously located a pair flying about over the locality. After getting fairly on the collecting ground, a twenty minnutes' search located the nest, the bird occupying it. It was situated on a side hill, about eighteen feet up, in a scrub white oak.

The female left the nest as soon as I discovered it, and flew across the creek bottom to a dead tree three hundred yards away, where she was immediately joined by the male. I quickly discovered from the appearance, flight and action of the birds that they were not the *Buteo borealis* which I had expected to find, and a little later when they came flying around close overhead I recognized them as *Buteo swainsoni*. The male was the handsomer of the two, smaller and more trimly built. The band across the throat and breast was much brighter, and he was also much more active and aggressive than the female.

The climb was an easy one, and in the nest were found three eggs, fresh and clean. They are greenish-white, with flakes of brown and umber, appearing as though these markings had been brushed over, making them indistinct.

The nest was a bulky affair composed of sticks, weed stalks, grass leaves, corn husks and a few feathers. After noting down a description of it in my collectors' book, the eggs were put in a mitten and lowered safely to the ground. The action of the male during this interval was interesting and novel.

From the dead tree across the valley he would start toward me as straight as an arrow from the bow, screaming fiercely every few seconds. But just when an attack seemed inevitable, and I had prepared to duck my head behind the nest, his courage would suddenly fail, and veering off he would return to his mate on the dead tree, only to repeat the performance after an interval of a few minutes. Two or three times the female started with him, on the assault from the dead tree, but after flying a short distance would return.

Having watched them as long as I could, and it beginning to grow dusk, I returned to the ground and secured the eggs, and the owl tree being but a short distance away I concluded to make a quick run to it, not, however, with much hope of making a second find. Going over the ridge that intervened between the hawk's and owl's nest, the latter came in sight, and I saw at once by the ear tufts appearing over the edge that it was occupied, and as I came nearer the big yellow eyes looked down at me as though they would say: "What! you here again!" Without waiting for an invitation to do so, she left the nest, and I fancied that I could see despair and disgnt in her every movement. Quickly running up to the nest I again found it contained three eggs. This time they were clean and fresh.

Nesting of the Barred and Great Horned Owls.

A little more than a half mile west from my residence is a piece of woods where for a number of years past, in the early twilight and especially before a storm, I have heard the Barred Owls (*Strix nebulosa*) hoot; and determining if possible to find their nest, I procured the services of my old friend, an expert climber, William C. Brownell, and early on the morning of March 19, 1888, we sallied forth, and on reaching the woods we armed ourselves with stout clubs, and separated a few rods apart.

We commenced pounding on all the old trees and stubs that had a hole in them, when presently I heard my old friend yell: "I have found her!" Making my way over logs and brush as fast as possible, I found him gazing intently at a hole in the side of a large basswood tree, about fifty feet from the ground. He soon informed me that he had scared a Barred Owl from that hole, and strapping on his climbers he ascended the tree and announced that there was one fresh egg. We left the nest and returned again to the tree on March 24th, when we collected a full set of three fresh eggs. We also collected a second set of two eggs from the same nest on April 17, 1888. They were slightly incubated. I again examined the nest May 6th, and 8th, and found her sitting on the empty nest like an old sitting hen, and when disturbed she took her place again on the nest in about twenty minutes after being scared off. She is the only wild bird I ever saw that would sit on an empty nest after having her eggs taken; and it will be as well here to state that Mr. Elmer Durfee of the adjoining township of Livonia, collected a set of four Barred Owls' eggs March 14, 1888, from a hole in a basswood tree about thirty-five feet from the ground, and later in the spring he collected a second set of three eggs from the same nest, and shortly afterwards a red squirrel took possession of the tree, which caused the owls to forsake their home.

The same day that we found the Barred Owl's nest (March 19th), we also found a nest of the Great Horned Owl (*Bubo virginianus*). It was situated in the forks of a large beech tree, about seventy feet from the ground, in an old Red-tailed Hawk's nest. It was a hard and dangerous climb: but he soon got there, and found it to contain three young owls, apparently about a week old, and covered with a whitish down. The nest also contained

the fore leg and shoulder of a rabbit. We did not molest the young birds but left them to develop. They remained in the nest until they were about six weeks old before leaving it. I made frequent visit to the spot while the young remained in the nest, and found scattered about under the tree, feathers of the domestic hen, Ruffed Grouse, Golden-winged Woodpecker, Crow, Hawks, and various other kinds of birds.

James B. Purdy.

Plymouth, Mich.

Attacked by a Great Horned Owl.

On March 2d of the present year I started out on a tramp into the country to see how the migration of our birds was progressing, and to examine a few old hawks' nests, which I had reason to believe might be occupied by *Bubo virginianus*.

My supposition was correct, for in an old nest which was used by a pair of Redtails in 1887, and from which I took one addled egg and left two young, I found Mrs. Owl at home. The nest is in an elm tree about fifty feet up. From the ground I could not see whether it was occupied or not, but certain signs about the trunk of the tree made things look suspicious, and a few sticks thrown into the treetop started the bird off.

I felt very jubilant, and was counting on an addition to my collection. Laying my gun down and taking my gloves off I prepared for a climb. Fortunately, the tree was of easy ascent, and I made rapid progress. The owls, in the meantime, had approached to the nearest trees, and were making a great hubbub—hooting and snapping their bills. They looked the very picture of courage as they sat facing me in such an erect attitude.

When within eight feet of the nest something attracted my attention, and caused me to look to the right. It was well I did, for I just had time to throw up my right arm to protect my face, when I was struck a blow on the forehead by one of the owls with such force that I was dazed for an instant. The owl passed both claws through my hat, which was of soft felt, and cut my scalp. I recovered from the shock and surprise in an instant, and breaking off a dead limb prepared for battle. I was none too soon, for she was at it again. I struck her a blow which turned her course slightly; but I also received one, doing me no damage however.

The owl returned to the same tree each time, and would probably have been at me a third

time, but I threw a stick with such good effect as to frighten both away. It is needless to say that the nest contained young birds, two in number, and for supper they had the remains of a rabbit and the leg of a black hen.

On reaching the ground I had a good look for my hat. The idea of going home bare-headed was not pleasant by any means, but I finally found it some forty or fifty yards off.

Jos. E. Gould.

Wanderings. No. 2.

A PERFECT DAY.

Through many years of collecting in the woods of the Old Bay State, it has been one of the greatest ambitions of my life to take a nest and eggs of the Great Horned Owl, and many hours have I spent and many miles have I travelled in a vain attempt to gratify this desire. A year ago, I rode forty-five miles and back and spent three days in a vain search, although a set was taken later on from one of the very nests which I visited, and this year I determined to undertake the journey again. Accordingly, one afternoon early in March, I, with my usual comrade, started for the same locality, and after a tedious ride of one and a half hours in a slow-going "Huckleberry train," stopping at every cross-road, about dark we alighted from the cars in the old town of Plymouth, and found the team, which we had previously engaged by mail, awaiting us.

A few moments, occupied in putting our "duffle" into the carriage, and we were off for the woods. A ride of two hours, and at nine o'clock, we alighted at the door of "mine host" Douglass, of whom you have heard before; and we were soon discussing the merits of a cranberry pie.

I never could understand why "the old lady's" cranberry pies always taste good, for I abominate them in the city, but my mouth will water whenever I think of those.

We arose the next morning to find a cloudless sky and a warm wind, one of those perfect days, only to be found when spring is just awaking from her nap.

Our objective point was the nest from which the eggs were taken last season by my friend, but we thought that before starting for it we would take a stroll over the old island, which occupies the centre of the pond. Accordingly we launched a boat, and rowing over, were soon enjoying the familiar spots, and bringing back reminiscences of past seasons.

Here was, last year, the nest of a Parula Warbler, and here a set of Downy Woodpecker's eggs.

And, while looking at an old nest from which two sets of the eggs of Cooper's Hawk had been taken, an Owl rose before our very eyes, and disappeared. Only a few minutes were needed to take us both up to that nest, and there, on their couch of downy feathers, lay the two long-wished-for eggs. To say that we were delighted would be drawing it mildly, and we immediately began to prepare them for transportation. While writing down a description of the nest, I was attracted by a shadow, and looking up, I saw the female sitting on a branch not more than six feet from my face, gazing very intently at some crows who were worrying her.

I transferred my pencil to my left hand, and slid my hand toward my hip-pocket for my "Smith & Wesson," but slight as was the motion, Mrs. B. caught on and turned her eyes in our direction. It was probably the first time she ever met the *genus homo* face to face, and, judging from her looks, she never will want to again. She did not say anything, and "she waited not upon her departure, but went at once," and we saw her no more. She probably thought "discretion was the better part of valor."

The eggs were laid upon a lining of feathers from the breast of the bird, are pure white, and measure 2.19 x 1.88 and 2.20 x 1.86 inches. They now lie before me, on the same bed, that is the feathers, but different surroundings.

The other nest, previously mentioned, panned out nothing, and no signs, as did all other places which we visited, but we had a glorious time, and glory enough for one day.

The next day brought me back to my desk, but as I look upon those eggs, I feel amply repaid for the ninety miles' travel necessary to procure them.

F. A. Bates.

Eight Eggs of the Crow in one Nest.

On May 13, 1888, while collecting in a swamp, I flushed a crow from a nest in a small cedar, and on climbing the tree was somewhat surprised to find eight eggs awaiting me. While preparing them for the cabinet, I found them to be in various stages of incubation, and the shells of some very thin. I look upon this set as rather an exception, never having found more than six eggs in a nest before. *R.*

Another Phase of Bird Life.

As our birds have a certain time of appearance in the spring, and of disappearance in the fall, so at least some have a daily time of arising and retiring, if we might use the term as applied to the *genus homo*. If this habit is not of enough importance to command an extensive treatise, it is surely of interest enough to call for momentary notice, in the every-day experience of the average ornithologist, giving as it does an insight into another of the specific characters of our feathered friends.

During the vernal and autumnal migrations, the restless warbler hosts are apparently constantly on the move. While the winter months last the Snowbird (*Junco*) may be seen astir as soon as it begins to get fairly light, followed very soon by the Crow, Bluejay, Chickadee and Nuthatch consecutively. But the best and most comfortable time to watch the daily appearance and disappearance of the birds is in the spring or summer, after our summer residents have mated and begun housekeeping. At this time the robin is the first to be astir. As the last notes of the Whip-poor-will die upon the air and the first faint light streaks the eastern horizon, his lively chirp can be heard, soon followed by his cheerful song, as if he was loudly heralding the morning to his sleepy neighbors. As the gray in the east turns to crimson and the soft morning breeze stirs the leaves, the Oriole begins to talk to his mate, while from the depth of the woods comes the cry of the Bluejay, followed, as the sun lights the tops of the tallest trees, by the Brown Thrush, as he tunes up preparatory to putting to shame the Song Sparrow, which is trying his vocal organs as he stands perched on yonder fence. Suddenly now as the sun spreads its beams over the whole landscape, the Pewee, from the barnyard, the Kingbird from the orchard, the Red-eyed Vireo from the wood, the Catbird from the roadside thicket, are all heard joyfully welcoming the new day. The Robins, Orioles, Song Sparrows and Brown Thrushes redouble their efforts. All the other denizens of the forest spring to life and the morning is fairly begun. As evening approaches and the sun begins to set the birds, one by one, seek their respective places of rest, the smaller ones first, followed by the larger. The Chewinks are active and noisy, but gradually they become still. The Catbird sings a low refrain from the top of some bush by the roadside and then disappears in the

swamp. The Brown Thrush, after pouring forth his wild melody from the top of some lofty tree, dives into the thicket and is heard no more. But after the sun is set and the shades of eve grow deep, the Robin is still actively flying hither and thither, improving every moment until he too seeks the woods from which now and then comes his chirp, interspersed by the mellow pipe of the Wood Thrush, as if they vied with each other in being the last to retire. But finally they, too, are still, the Robin generally having the last word, and the Whip-poor-wills and Owls are all that are left to guard the silent night.

R. H. C.

Brockton, Mass.

Notes on the Woodpeckers.

In the charming little paper entitled "Winter Neighbors," by Mr. Burroughs, which we have enjoyed very much, he writes:—

"It seems not to be generally known to our writers upon ornithology that certain of our woodpeckers—probably all the winter residents—each fall excavate a limb or the trunk of a tree in which to pass the winter, and that the cavity is abandoned in the spring, probably for a new one, in which nidification takes place. So far as I have observed, these cavities are drilled out only by the males. Where the females take up their quarters I am not so well informed, though I suspect that they use the abandoned holes of the males of the previous year."

In digging out these retreats the woodpeckers prefer a dry, brittle trunk, not too soft. They go in horizontally to the centre, and they turn downward, enlarging the tunnel as they go, till when finished it is the shape of a long, deep pear."

A few days ago I took a walk, with a schoolmate, down the road which leads past the church and the cemetery. A little farther on, we turned into a pasture on the left, and sauntered along the foot-path that crosses the field and leads to the bridge, not far from the station. In the midst of an animated conversation, my attention was attracted by the appearance of a bird, which I immediately recognized as the Golden-winged Woodpecker, or High-hole.

Surprised at seeing him out at this season of the year, and on such a cold day, I paused, and looked around to see if perchance he had a home near. At the right stood a small clump of stumpy cedars, their gnarled, leafless branches standing out in relief against the

wintry sky, and sure enough, upon examination, my companion discovered in the trunk of the largest of these, about six feet from the ground, an excavation. At my earnest request, she climed up and peered in, reporting that the hole was fully two feet deep, and looked all scratched. In my excitement I pulled her away, and by dint of much scrambling managed to get a peep myself. It was as she said; the hole was carved out in true woodpecker style, and undoubtedly the bird I saw had flown out upon being disturbed by the sound of voices.

Alice Eloise Adams.

[We publish the above article, written by Miss Adams, a student at the Wheaton Seminary, and taken from the school paper, "The Rushlight." Ornithological notes from the young ladies, we regret, are rare. As showing what *might be*, we deem it worthy of repeating.—Editor.]

Killed by an Engine.

One evening in September last, after the arrival of the last train from Boston, drawn by the Gen. Meade, in charge of the familiarly known engineer and fireman, Al. Franklin and Andy Meikle, a Ruffed Grouse was found in the cow-catcher, still warm. As they came through a small belt of woods between Conway and North Conway it is supposed the bird was flying across the track and a little from the train, as she was struck in the back.

A few weeks later the same engine struck a Red-tailed Hawk which was flying from them in mid-day, and was thrown one side. Mr. Meikle sent back by one of the section-men and secured the bird, and the next evening brought it to me to be mounted. Both birds were struck in the same place, making a wide black band across the back. This has never occurred before on this road.

J. Waldo Nash.

No. Conway, February 18, 1889.

Nesting of the White-winged Crossbill.

A pair of White-winged Crossbills (*Loxia leucoptera*) have lately built their nest near our city. The nest, which contained, on the sixteenth of March of this year, three eggs, was built on a spruce tree about twenty feet from the ground. The outer part of the nest is constructed of small twigs woven together, the inner part of moss and fine dead grass;

there was no clay or feathers used in building the nest. The eggs were white with brown spots. The female was on the nest and allowed a visitor to come within a few feet before leaving it, when she joined the cock bird, a fine red fellow who was singing on the top of a neighboring tree. The Crossbills had been unusually plentiful this winter near Halifax, but I have never known before of an instance of their breeding here. I do not know of any other bird except the Raven that nests at this season in this climate.

Thomas I. Egan.

Halifax, Nova Scotia.

Spherical Eggs.

One often reads about certain kinds of Owl's eggs being "spherical" in shape, but when they are tested by accurate measurements it is found that they are always a good deal longer than they are wide. A truly spherical egg has probably never been found, but a set of eggs now before me is perhaps as good an example of "spherical" eggs as any that could be selected. They are eggs of Whitney's Pygmy Owl (*Microtathene whitneyi*) and were collected on May 29, 1887, near Tucson, Arizona. They measure .98 x .92; .99 x .91; and 1.00 x .93. To the eye two of them appear to be almost perfect spheres.

J. P. N.

An Owlly Success.

The following is a series of owls collected by me last fall: Three Snowy, five Great Horned, one Great Gray, two American Long-eared, two Barred, one Little Horned.

How is this for one season and for one collector? Looks rather owlly, does it not?

I also wish to record the capture of two Canvas Backs (*Fuligula cassisneria*) in this state. Both were old ♂ birds. They were killed in Yellow Medicine county by L. F. Sampson and Frank L. Perkins, while out hunting for ducks last fall. Is not this a rare occurrence of this bird in our state?

Albert Lano.

Cardinal Grosbeak in Last Year's Blizzard.

On March 14, 1888, or "Blizzard Monday" as it is sometimes called, I saw a male Cardinal Grosbeak (*Cardinalis virginianus*) in full spring plumage, pluming himself in some large ever-

green bushes. Being a bird of warm climate it is strange that it should have been so far north at that time. Later on in warm weather I saw what I supposed to be the same one, only accompanied by a female. On examining the bushes I found an old nest that resembled the Cardinal Grosbeak's very much, and probably was their 1887 home. Not having taken the O. & O. until this year I have delayed writing about it.

Wm. Oakley Raymond.

Summit, N. J.

Description of two Supposed New Sub-species of Birds From Vancouver's Island.

Among a small collection of birds from Vancouver's Island, kindly sent to me for examination by Mr. Frank B. Webster, I find the following that I think should be named:

DRYOBATES PUBESCENTS FUMIDUS
Novo.

Smoky Woodpecker.

DESCRIPTION.

Sub. Sp. Ch. Size and color similar to those of Gairdner's Woodpecker, but differs in having the white, especially below, pervaded with smoky brown, and in having rather more spotings on the wings.

Color. Adult Male. Above, black tinged with brownish. A series of five spots on outer webs of all but first, (long) primaries, and four on secondaries and on the inner webs of all the wing quills, excepting tertaries, and outer (long) primary, which has three, pure white. The outer tail feather is yellowish-white for three-fourths of its terminal portion, with two pairs of black spots, one pair on each web; the next feather is two-thirds white, with one pair of terminal spots and one extra on inner web; the third feather is one-third white with one black spot on the inner web; on these three feathers the black of the basal portion encroaches on the inner webs considerably more than on the outer. There are a few spots of white on the greater wing coverts.

Line beginning over front of eye extending to nape, spot on lower eyelid line beginning below eye extending to nape, where it broadens out into a triangular patch, central line on back, and a spot on the feathers nearest this, white, tinged with smoky. Nasal tufts, smoky white, mixed with dusky, and there is

a black space between them and the white lines of the head. Forehead, with a few streaks of white. Back of head, with broad band of scarlet. Beneath, smoky brown, slightly paler on throat and under tail coverts, with the black above encroaching on the anterior portion of the sides in the form of partly concealed triangular spots, and the flanks and under tail coverts are streaked with dusky, but not prominently. Bill and feet, brownish, the former slightly bluish on the base of the lower mandible.

Adult. Female. Similar to the male, but lacks the scarlet patch on the head, has the white of the head more extended, especially in front of the eye; has more spots on the wings, there being a terminal series on the quills, the tertaries are spotted, and there are not only more spots on the greater wing coverts, but the lesser coverts are also spotted, and the black on the tail is considerably extended.

OBSERVATIONS.

I see no reason why this extreme dark form of the small spotted woodpecker should not be emphasized by receiving at least a sub-specific name. It appears to differ from the typical *D. p. gairdneri* in two important characters, first in being pervaded on the white, especially below, with smoky brown, and in having the white markings on the wings more numerous. I am of course perfectly aware that the Southern Downy Woodpecker (*D. pubescens*) is also dark beneath, and that this color grades very gradually into the white of the more northern birds, so gradually, in fact, that it is impossible to find any line which will separate the two forms. But in this case there is a difference, the transition from the whiter *gairdneri*, to the darker *fumidus*, being much more abrupt than the greater amount of spotings on the primaries in combination with the dark tintings of the white, presents an additional character warranting the separation of the two forms.

DIMENSIONS.

Wing 3.73; tail, 2.40; bill, .60; tarsus .62.

HABITAT.

The types came from the southern portion of Vancouver's Island, but its range will probably be found to be the same as that of *Dryobates villosus harrisii*, Harris' Woodpecker, of which I have an example from the same locality, as the same climatic, or other influence which has caused the evolution of one sub-species must, to all appearances, have caused the other.

CYANOCITTA STELLERI LITORALIS
NOVO.

Northwest Coast Jay.

DESCRIPTION.

Sub. Sp. Ch. Similar to *Cyanocitta stelleri*, Stellers' Jay, but differs in having no distinct black bands on the tail, and but few on the wings. Sexes, similar.

Color. Adult. Head, all around including crest, anterior two-thirds of back, neck, and anterior portion of breast, sooty black, darkest on crest. Remaining lower portions, deep blue. Posterior back, and upper tail coverts, blue, of a decidedly lighter, more opaque shade. Concealed portions of closed wing, and tail beneath, sooty brown with exposed surface of secondaries, tertaries, and tail above, very dark, nearly purplish-blue, the primaries are paler, about intermediate in shade between the secondaries and the lower portions. The tertaries and secondaries are inconspicuously banded with dusky. The forehead is streaked with blue of about the same shade as is seen on the rump. Tibia, dusky. Bill and feet, black.

OBSERVATIONS.

Of the two specimens that I have the female has faint bandings scarcely appreciable in a direct light, on the extremity of the tail and also on the wing coverts. The difference between the shade of color on the secondaries and primaries is a marked feature. Of course a small percentage of Stellers' Jays from the main-land near, will be found to have an approach toward this form in showing a tendency to lose their wing and tail bands, but I think the Vancouver Jays are sufficiently characterized to warrant the name given.

DIMENSIONS.

Wing, 16.10; tail, 5.50; bill, 1.32; tarsus, 1.80.

Charles J. Maynard.

Observations on Cory's Gannet.

[From advance sheets of "Contributions to Science."]

In the adult stage this species is remarkably uniform in coloration, and the same is true of nestlings, and the first feathering, but in the intermediate stages there is much more variation. In the plumage succeeding the adult, which appears to occur much too seldom to be assumed by all birds, there is great variation, scarcely any two birds being colored exactly alike. Usually the white color predominates, but I have seen the brown in the ascendancy, especially above, while the white below is often mottled with it. This dress is certainly not

normal, for, judging from the specimens examined in the gannetry at Little Cayman where there were some 10,000 birds, not one in a hundred is thus colored.

The next younger stage varies in amount of white on the back, where it sometimes reaches well up between the wings and extends along the sides below. The tail and its coverts appear to be the first portion to become white, and as shown, as a rule, this becomes wholly of this color the second year, but in one specimen, out of all I have, three outer feathers are brown, but the upper and under coverts are white. The usual variation in this stage is undoubtedly due to age, but there is no fixed limit which will determine whether birds so marked belong to the second or third year.*

It is possible, that what I have above considered as an abnormal plumage may be the young of the Red-faced Gannet, or reversion toward that species; this is rendered more probable by the amount of brown on the tail, as younger birds in typical plumage have the tail wholly white.

Were it not for the fact, that the young, even in the second year, have the tail wholly white, I should be inclined to consider the adults simply as a very high plumage of the Red-faced Gannet, but in the face of this fact, Cory's Gannet must be distinct from that species, and I know of nothing else with which it can be confounded. *S. cyanops* is a much larger bird, wing being over 16.00, instead of 15.00 and under, and has much more brown on the wing as well as having the tail constantly brown.

The types, and all of the specimens that I obtained, were taken on Little Cayman, but there was a Gannet breeding on the cliffs at the east end of Cayman Brac, which may have been this species, but of this I am not now certain, as I never saw one near enough to identify it.

In this connection, it may be well to inquire into the claims which *Sula pectoralis*, Red-faced Gannet, has to be considered as a bird of the insular fauna of the Caribbean Sea. It is true, that it has been given as occurring on the Pedro Keys, off Jamaica, but may this not be *S. Coryi*?

Charles J. Maynard.

Eggs of the Mexican Ground Dove.

The eggs of the Mexican Ground Dove (*Columbigallina passerina pallescens*), see Rid-

* Since writing the above, I have concluded that, beyond a doubt, unusual as it is among Gannets, Cory's Gannet assumes two phases of plumage in the adult stages: viz., white and brown with tail white.

† Page 40.

way's *Manual of N. A. Birds*, p. 586, have never, I believe, been described, and I am therefore glad to place their description on record.

The eggs, two in number, were taken June 26, 1887, in the Santa Cruz Valley, near Tucson, Arizona, by Mr. Herbert Brown. The nest was built in a peach tree, and was about ten feet from the ground. It was made of a few twigs and a little grass.

The eggs exactly resemble those of the common Ground Dove (*C. passerina*). They are pure white, elliptical oval in shape, and measure .89 x .67; .85 x .66.

J. P. N.

Spotted Eggs of Wilson's Thrush.

I have recently received a remarkable set of eggs of the Wilson's Thrush (*Hylocichla fuscescens*). They were taken June 2, 1888, in Franklin County, Maine. The parent bird was shot, and fully identified. The eggs, which are four in number, are of the usual color, but they are all distinctly speckled with russet. One of the eggs is marked much more heavily than the others, but on all of them the specks are easily seen. The largest of the markings measure .03 x .03. The eggs themselves measure .82 x .65; .82 x .66; .83 x .66; .82 x .67.

J. P. N.

The Southern Yellow-winged, or Grasshopper Sparrow (*Ammodramus australis*).

Editor O. & O.:

I wish through your columns to call the attention of collectors in the Southern States to this species described by me a year or two ago.

The point is that in all probability a Yellow-winged Sparrow occurs in the Southern States, having the breast at all seasons streaked with reddish or dusky. We all know, who know anything about the Northern Yellow-wing, that the young, and possibly the adult in winter, are so streaked. But the Northern species loses these streakings in summer, while, as I contend, and hope to prove most conclusively in my forthcoming revised edition of the Birds of Eastern North America, that in the Southern Yellow-wing they are constantly present. My new species is also smaller and darker. Both species occur in Florida in winter and can even when both are streaked be readily separated.

The Southern Yellow-wing also occurs in Texas, I having recently found a skin among

a half dozen Northern birds, also from that section, now in the collection of Mr. Frank B. Webster.

I shall be pleased to see any notes upon this subject published in the O. & O. from observers along our Southern border.

I call attention to this matter; as the subject appears to be somewhat misunderstood. I judge this to be a fact from some notes made upon the Southern Yellow-wing by Mr. Chapman in, I think, the July Auk of last year. Mr. Chapman says that birds that he has collected in Florida are no more heavily streaked than one taken in New Jersey, but neglects to give the most important fact which can have any bearing on the subject, viz., the date of capture of any of the specimens in question. As he says, however, that his Southern skins are no darker than the Northern bird, which was presumably, a fall specimen, it is probable that he has taken the Northern bird with the transient streaked breast, in Florida. C. J. Maynard.

Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

SENTIMENT FOR THE COLLECTING SEASON.—

If a bird or egg is wanted for the legitimate purpose of study TAKE IT. To destroy them for any other purpose is an act against the interests of ornithologists and taxidermists.

The trial of John C. Cahoon for the alleged offence of killing terns out of season at Chatham last August, occurred at Barnstable, April 9th and 10th.

Four witnesses for the Commonwealth were sworn, and testified that being fishermen engaged in their avocation, that of searching for blue fish, they saw Mr. Cahoon shooting on Monomoy beach. Their attention was first attracted to him by hearing the report of his gun when they were in a boat a half mile away. At this distance three of them said that they heard the report of the gun, saw the terns fall, then saw the smoke of his gun. The fourth, and last witness, evidently better posted in acoustics, saw the smoke of the gun, saw the tern fall, and *then* heard the report. All testified to the fact that a single tern could not be distinguished at a half mile away, but that a flock in mass could be seen, yet all were confident that they saw a single bird fall at that distance.

Three said that the defendant continued to

shoot terns until they were within two hundred yards of the shore, and singularly enough every bird shot fell upon the beach within plain sight of them. When they had approached within a hundred and fifty yards of the beach Mr. Cahoon left his blind in which he had been lying and picked up, according to witnesses, seven birds, all most unmistakably terns, carried them to his boat, which was anchored on the opposite side of a narrow point and deposited them in it.

The fourth man testified that they were within seventy-five yards of the shore when the defendant picked up his birds and consequently he was, if anything, more sure than the others of their identity with terns.

Upon cross examination by the eminent attorney for the defendant, no new facts were elicited from the three first witnesses. While they explained clearly how they could row and keep a careful lookout, none did say why it was that they, one and all, were very anxious to see just how many birds were shot by Mr. Cahoon, for they most emphatically denied that they had any idea of coming there to watch him.

The fourth witness, was, as he expressed it, a man "who kept his right eye constantly over his shoulder"; even when rowing, his optic was fixed in this position, but when asked by counsel if this eye had never been directed towards signals of distress when they were displayed along shore, he did not answer his question but persistently turned the conversation back to the habits of terns. With these birds he had been familiar from childhood, he had always loved them, for were they not most useful to him in pointing out the position of the blue fish? Their rapid diminution during his career had been so constantly forced upon his attention, and he was extremely anxious lest they should become utterly exterminated! The idea was "He who raises his hand against a tern raises it against the thing most dear to my heart." He had no malice in bringing this defendant to the bar, only his extreme love for the terns and solicitude for their safety caused him to do it! Had his own father stood there that day and shot terns, it would have made no difference, he must, with more than Spartan fortitude, have prosecuted him! Yet this worthy man, this honest Cape Cod fisherman, in whom we trust there is no guile, this man whose eyesight is so keen that he is obliged to keep his right optic over his right shoulder in order that he may not go wrong when on the

high seas, this man did, when under oath, on the witness stand, tell the jury, in his eagerness to inform them that he was familiar with the habits of the terns, *all their habits, that he had in his lifetime taken at least ten thousand eggs of the Common Tern*, thus destroying, as the counsel for defendant immediately suggested to him, at least ten thousand of the children of his more than fatherly love.

Against this array of evidence on the other side, Mr. Cahoon stood alone. His simple assertion that he did not shoot any terns that day was all that he could offer to combat all that testimony.

Mr. Maynard, summoned as an expert on the habits of terns, said that although presumably terns might be identified at two hundred yards and upwards, yet it was not a matter that any one could swear was so, as there was a chance for deception. Neither could a tern lifted from the beach at a hundred and fifty yards from the observer be identified positively as such.

Col. Nickerson made an eloquent plea for the defendant, followed by one equally eloquent for the law and right by the honorable district attorney. He said that Mr. Cahoon had proved an excellent witness for the Commonwealth because he had acknowledged that there were no birds about that day that could have been mistaken for terns. The expert, who brought science out of books in conflict with the positive evidence of men who had grown up among terns, might just as well have staid at home.

His Honor, the presiding Judge, made, as is his custom, a just and perfectly fair charge to the jury. The law was rendered to them in a clear manner and they were instructed as to the bearing the various evidence had upon the case.

The jury, that was fortunately made up of a remarkably intelligent set of men retired, and after remaining out two hours and three-quarters rendered a verdict of NOT GUILTY, a decision well worthy of their heads and hearts.

The yearly subscription rate of the O. & O. is one dollar. This we consider low for a magazine of its nature. It has again come to our attention that some subscription agencies have assumed the responsibility of offering it to the public at a reduction. We propose to protect those who advertise it at the regular rates. We will trump the trick by charging full rates to any who persist in cutting.

The American Ornithologists' Union abridged check list, including all the new species included in the supplement to the original list, is now ready. Printed in a desirable form it is offered at a price that places it within the reach of all, and we emphatically advise our readers to procure it. The use of several systems is becoming embarrassing and it is important that all unite in adopting some one. We are not prepared to advise dropping entirely the Ridgway system at present for several reasons. It will be found that those who have large collections numbered and arranged by that system will be slow to change, at least till they are well satisfied that they are not jumping out of the frying pan into the fire. Again there are thousands who cannot be reached for some time, and can only be wheeled into line gradually. Several of the leading Natural History dealers have arranged their lists, using the A. O. U. numbers first, followed by the Ridgway, and these will be scattered over the country. We would suggest that in rendering lists, numbering skins and eggs, it be done in the form of a fraction, using the A. O. U. for the numerator, and the Ridgway or others for the denominator. In this manner the change, which we think will be beneficial, can be made gradually. That the adoption of a new list was necessary, and in keeping with the advance of present knowledge has been felt by all, but there is necessarily a diversity of opinion on many points. We are not disposed to be grateful for extinguishing our Old Bay-winged Bunting with the Vesper title, and otherwise interfering with the English names which are so well established.

It will now be in order to have the Ridgway manual revised, as back water has been taken in several instances, as the Western Yellow Warbler and California Crow. Criticising the new list, a well-known ornithologist says:

"We are surprised to note that *Ardea occidentalis* is still omitted from the list, as it certainly should have a place there. With *Ardea pealei*, Peal's Egret, the case is different, but we are inclined to think that this will ultimately find a place in the catalogue.

While we are pleased to note the exclusion of *Chordelies minor*, Cuban Night Hawk, from the list, it never having had a claim to a place there, we cannot help regretting that *Starornas cyanocephala*, Blue-headed Quail Dove, *Falco sparveroides*, Cuban Sparrow Hawk, and *Jacana spinosa*, Mexican Jacana, have not also been excluded, or at least placed in the hypothetical

list, until we have more evidence of their occurrence within our limits than has been presented.

Buteo buteo, European Buzzard, perhaps ought to be placed in the same list. But why are not birds which are of purely accidental occurrence omitted? A separate list should have been made of them. Because a certain species, the usual habitat of which is widely distant, has occurred once it is no good reason why it should ever occur again, and should it do so sufficiently often, then it can be added to the list.

We note, and with no pleasant sensation, that names are still being changed, not many to be sure, yet still enough to show clearly that the vaunted "hard pan" of nomenclature has not yet been reached. In comparing this revise with the last list not only these changes in nomenclature, but other alterations, and impending changes, causes us to retain the opinion that we held from the beginning, that it would have been far better for the Union to have published a provisional list for a series of years, when a comparatively correct catalogue could have been issued."

Brief Notes.

We are pleased to note that Mr. R. B. Trouslot of Kansas City, Mo., has been elected secretary of the K. C. Society of Natural Sciences. This society, although yet young, possesses good material, and from what we know of Mr. Trouslot we should imagine that, if he puts his usual push to the work, it is bound to go ahead.

On May 30, 1888, I shot a fine ♂ Kentucky Warbler. I have never known of one being taken in this locality, and consider it a rarity. W. H. Lucas, West Stratford, Conn.

The loss of copies of the O. & O. in the mail continues to be exceedingly annoying to both our subscribers and ourselves. Each month brings us a number of complaints. Our most careful efforts fail to remedy the evil. We think there is just a possibility that an improvement could be made in the post-office department.

The issue of April 4th of the Forest and Stream, containing Illustrated Salmon and Trout Supplement, is one of unusual interest.

The question is daily waxing warmer among a few Natural History dealers: In what way to handle *dead beats*, i.e., those who secure all the credit they can in one quarter and then direct their operations in another. The Natural History business is carried on principally by mail correspondence, and it results that a dealer who is disposed to favor by giving credit, many times becomes the victim. We believe, judging from some of the instances that come under our observation, that if the faces of some of these *pests of trade* could be

seen, those who trusted them would not be surprised at the intensely dishonest character that would be delineated.

The quite amusing and interesting features of the many amateur publications that are continually springing up, are the assurances with which it is asserted that "we have come to stay," in the first issue, tales of the wonderful success from inpouring of subscriptions in the second, and what becomes of the third issue? It seems the Mecca of youth to start a paper and issue a cut rate catalogue, believing it to be all that is necessary to establish a lucrative business. Many who have tried it will agree with us that there is vastly more hard work than appears in the phantom programme.

A Black English Sparrow reported in the vicinity of Lynn. A. M. Tufts.

A fine specimen of the American Egret was shot on Prudence Island, a few miles from Providence, R.I., August 17, 1888. J. M. Southwick.

I collected my first sets of *Bubo's* eggs this season on February 6, set of 2, February 8, set of 3. Two years ago I took a set of 2 on January 28. The set of February 6 was from the nest described in an article recently sent to the O. & O., and makes eleven eggs from it in three seasons. I think this set would have been three, had I waited a few days, as the eggs were, one fresh and the other slightly incubated. Dr. W. S. Strode, Bernadotte, Ill.

We congratulate Dr. Strode upon his recovery from a short but serious illness.

To extinguish English Sparrows—leave them off of all lists of birds.

Owing to the increased demand for separates of articles we shall in future charge for them.

A Cowbird taken in Dartmouth, Nova Scotia, first week in March. Flocks of geese passing over. H. Austen.

A so-called National Book Exchange publicly advertises its *private rates to members* for the New Ridgway Manual at a greatly reduced rate. If the work is not worth more than they offer it at, why don't the publishers take steps to make the reduction general?

We have received a number of communications asking about a process of embalming advertised in our columns. We refer to that of Dr. R. M. Gibbs. We know nothing whatever about it. If it is as represented it might prove of value in preserving birds till such times as they could be attended to in the regular manner. If it is not as represented, the fact should be known. We are entirely disinterested except to benefit our readers. We would like to hear from some of the 300 who have sent the doctor testimonials.

M. Dickey, the well-known milkman, captured a butterfly on Cogswell street yesterday afternoon, March 2, 1889.—[Halifax Evening Mail. H. Austen.

"The Herald (Boston) has received from George T. Angell, the president of the Massachusetts Society for the prevention of cruelty to Animals, the following circular: I hereby offer 10 prizes of \$10 each and 20 prizes of \$5 each for evidence by which our Massachusetts Society for Prevention of Cruelty to Animals shall convict persons of violating the laws of Massachusetts, by killing any insect eating bird or taking eggs from its nest. I also hereby offer to the boy in every city and town of Massachusetts who shall first, during this spring or the coming summer, succeed in so taming

wild birds that they will feed from his hand, a prize of \$5 in money and the society's paper, Our Dumb Animals, and other publications free for one year."

That's right! Offer a prize to induce the boys to coax the birds into their hands, and then pay the companion who runs and tells. It inculcates such a manly trait, you know.[?] This society so extravagantly lavish of its funds proposes to revolutionize the plans of nature by taming the birds. We warn it of the danger of introducing dyspepsia by a possible change of diet. We shall expect to see all the youth spending their leisure hours this spring, distributing crackers and cheese to our favorites, and the cry of "Birdie, birdie, want a worm?" will be answered by "Peep, peep!" from every roadside.

We are disposed to second the munificent offer in the first clause, and will publish the name of any informer who draws a prize at the expense of an ornithologist. The name of such a beggar should be placed before us as a yellow flag is on a pest house.

It is safer for Mr. Angell to display his valor against the ornithologists than to pursue a course as dangerous and so full of snags, as taken by his associate, Mr. Bergh of New York.

The Herald a few days since called his attention to the fact that President Harrison drove a pair of horses with docked tails, and we presume the above circular was sent to show that it was only small game that was receiving immediate attention.

Two fine specimens of the Brant from Capt. Gould reminds us that the Branting season is now in its prime.

Mr. William Brewster has two specimens of the Labrador Duck in his collection at Cambridge, Mass., and we presume that there are more to hear from.

New Publications.

Biography of John Bachman, from material collected by the late Rev. John Bachman Haskell. By C. L. Bachman. 12mo., pp. 436. Published by Walker, Evans & Cogswell, Charleston, S. C.

John Bachman was born in the town of Rheinbeck, N. Y., February 4, 1790. At the age of 24, by reason of ill health, he was forced to seek a mild climate and settled in Charleston, as pastor of the St. John's Church. Acquainted with Wilson in his early boyhood he became very much interested in Natural History. In 1831 he met Audubon, who visited him at that time. In 1837, the families of Bachman and Audubon were united by the marriage of John W. Audubon and Maria R. Bachman. Bachman died February 24, 1874. The work is one of unusual interest, fascinating the reader from the start. The correspondence between Bachman and the Audubons, and other notes of interest to naturalists, make it a desirable addition to their libraries.

Contributions to Science, by C. J. Maynard, Newtonville, Mass., a quarterly (\$3.75 per an-

num) illustrated by colored plates. Number 1 is now ready, and contains many interesting articles, including "A description of an apparently new species of Warbler from Jamaica, allied to the Palm Warbler"; "A description of a supposed new species of Gannet" (noticed as Cory's Gannet, in March O. & O.), etc. It is Mr. Maynard's intention to publish, in the future, the results of his investigations in such a form that they will be condensed, and not then subject to the annoyance of being scattered through various publications.

A List of Birds of Buffalo and Vicinity, by W. H. Bergtold, M.D., a reprint of the Bulletin of the Buffalo Naturalists' Field Club of the B. S. N. S. The author states that no species have been admitted when the least shade of a doubt existed as to the authenticity of the occurrence. The list includes 237 species. Comparing it with one of Central New York, by Frank R. Rathbun, and others published in 1879, we find that it contains 24 species not mentioned in it, while in the Rathbun list there appear 23 of which Buffalo cannot boast. Among them, and marked common, are the Horned Grebe, Semipalmated Plover, and Worm-eating Warbler. The Tennessee Warbler is also marked as a regular migrant in small numbers. The comparison of the two lists, published in neighboring localities, is very interesting.

The Playtime of Naturalists, by Dr. G. E. Taylor, F.L.S., 366 illustrations, 12mo., \$1.50. Published by D. Appleton & Co., New York. It is the author's aim to enlist the interest of the young in the various branches of Natural History. The manner in which, by the aid of the illustrations, attention is called to many of the curious and obscure ways of nature cannot fail to interest both old and young.

The Curlew, a monthly magazine of ornithology, 6 pp. (size, 4 x 6), 25 cents per year. Published by O. P. Hanger & Co., Orleans, Ind. "Tall aches from little toe corns grow." David knocked Goliah out with a pebble, and the upsetting of a lantern laid Chicago in ashes. We never can tell what may result from small beginnings.

Correspondence.

Editor of O. & O.:

My Dear Sir:—In answer to D. D. Stone's question in the February O. & O. as to why do

Crows when pulling up corn almost invariably take the soft kernel, if they are only after after cut-worms, etc., allow me to say that my article in September O. & O., 1888, was written from my own personal observations and experience. Though comparatively a young man, I am quite familiar with the food habits of our New England birds, and especially those of Crows, Hawks and Owls; and of the species under consideration I have collected quite a few, and always made it a rule to examine and note carefully the contents of their stomachs, and of nineteen specimens dissected during the spring of '87 and '88 I have not, in a single instance, found any traces of hard or soft kernels of corn, but on the contrary have almost always found the stomachs full of large white grubs, cut-worms, and other noxious insects which are injurious to the healthy growth of the corn plant. I have, on several occasions in my tramps afield while passing through a planted corn field, noticed the young plants laying around, where the crows had been at work, with the soft kernel still attached to the roots, yet I have observed Crows feeding in the dead of winter on corn which had been carelessly left standing in the field; but as to the above results I was led to believe that insects constitute the principal food of Corvus during the spring and summer months. If I am in error, of course I am perfectly willing to be corrected, and do not wish to be understood as taking any decided stand in the matter, and would be pleased to hear from others on the subject, but will say that, despite the desperate efforts of man to destroy these birds by the use of strichnine and gun powder, they seem to hold their own without any serious effect to the various crops; and I am yet to be convinced that Crows are more injurious than beneficial to agriculture, and remain

Respectfully,
Edward Tenant.

Attleboro Falls, Mass., March 17, 1889.

P.S. I wish to say in confirming Mr. John C. Cahoon's argument in December O. & O., 1888, speaking from personal observation and experience, that the food of the Great Northern Shrike here in winter consists principally of insects, as the stomachs of seven, dissected by me during January, February, and March, 1888, contained large quantities of white grubs and other insects, with the exception of one shot March 2, 1888, whose stomach contained the body and a few feathers of what I thought was a Tree Sparrow. Edward Tenant.

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BOSTON, MASS., MAY, 1889.

No. 5.

A List of the Birds of Colorado.

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116. *Haliæetus leucocephalus* (Linn.). Bald Eagle. Resident. Breeds in the mountainous portions of the state, and is tolerably common; most abundant on the plains in winter; nests in trees and on ledges of cliffs. Eggs, two to "four," dull white and unmarked. Tarsi naked in this species but feathered to the toes in *A. chrysatos*, a character which will distinguish the two species in any plumage. The perfect plumage is not obtained until the third year, hence the large number of local names given this species. Reaches 12,000 feet in spring and summer, retires to lower altitudes in the fall and remains through the winter.

117. *Falco mexicanus* (Sehleg.). Prairie Falcon. Transient visitant; rare. Observed by Drew and Anthony, also by Allen and Brewster.* Breeds as high as 10,000 feet, and down to the plains. In winter this species retires to low altitudes, but the bulk migrate into New Mexico from Western Colorado. Nests on shelves of the rocky wash-outs of the prairies, and I have strong suspicions that it breeds at times in holes in the ground as well as in hollows of trees. Have not as yet found its eggs, but they are said to be "grayish-white, spotted and blotched with various shades of reddish-brown running together so as to obscure the ground color," but this, I am told, is the exception, as more often the spots and blotches are collected about the larger half of the egg, leaving the ground color distinct. They are about 2.08 x 1.70.

118. *Falco peregrinus anatum* (Bonap.). Duck Hawk. Transient visitant; tolerably common. Reported by Drew and Anthony. Reaches 10,000 feet. A more thorough investigation will no doubt prove this species to be a resident. Nests on shelves of cliffs and in

cavities of decayed trees. Eggs, three or four, of "reddish-ochre, spotted and blotched with reddish and dark chocolate brown, thickest at large end."

119. *Falco columbarius* (Linn.). Pigeon Hawk. Transient visitant; tolerably common (Anthony), also observed by Drew. I have one set of its eggs taken near Ft. Lewis, on June 3, 1887. The nest was of small twigs, rather loosely put together, and lined sparingly with dead grass and several feathers. The number of eggs were five, the ground color being white with just a slight pinkish tint, this faded after blowing to chalky white, sprinkled with fine dots of drab, about evenly over the entire egg in three specimens, the other two having the spots congregated near the large end, showing signs of a wreath, but not so thickly but that all were separate and distinct. The nest was but eight feet from the ground in a heavy clump of alders. The eggs of this set average 1.60 x 1.30.

120. *Falco richardsonii* (Ridgw.). Richardson's Merlin. Reported from Eastern Colorado by Capt. Thorne. Its vertical range is given by Drew at from 6,000 feet in spring up to 11,000 feet in summer.* Allen and Brewster also met with it. I have received no record of its breeding, but I think its nest and eggs will be found in the heavy vegetation fringing the mountain streams.

121. *Falco sparverius* (Linn.). American Sparrow Hawk. Summer visitant; common. Breeds abundantly in hollows of trees and old Flickers' holes; in the last case it generally uses no lining but the chips left by the former occupant, but sometimes it improves upon this primitive mode by adding a scanty lining of leaves, feathers or grasses. It also deposits its eggs in holes in cliffs. The eggs of this species vary greatly in markings and a large series is necessary to show all the the varia-

* B. N. O. C., Vol. VIII, No. 4, p. 197. October, 1883.
"A few pair seen."

* B. N. O. C., Vol. VIII, No. 4, Oct. 1883, p. 197.

tions of colors. Mr. J. Parker Norris* has published the best descriptions I have yet seen. The nest complement is from three to five, but four seems to be the true number, although extreme sets of six and seven have been taken.

122. *Pandion haliaetus carolinensis* (Gmel.). American Osprey. Summer visitant; tolerably common. Breeds as high as 9,000 feet, and reaches 10,500 feet in summer and fall. Begins laying in April; nests in high trees along the largest streams. Eggs two to four, buffy-white, spotted and blotched with burntumber and brown, with sometimes a few lilac markings. This species has escaped the notice of most all the members. Drew and myself seem to be the only ones that have observed it.

123. *Asio wilsonianus* (Less.). American Long-eared Owl. Resident; common. Breeds as high as 11,000 feet. I have noticed one fact in regard to this species. At its lowest breeding range it commonly deposits from four to six eggs, and I know of several sets of seven, but as we find it at higher altitudes these numbers decrease; for instance, at 8,500 feet I never found but three eggs in any set. Higher up, at 10,500, I can record two nests found, one containing two eggs, the second two young. Now can altitude affect its egg-laying proclivities? I would like very much to receive data from collectors from different parts of the interior districts, and will be greatly obliged to any who can furnish me with any facts relating to this theory in the case of any of our *raptores*. Nests in trees, mostly in nests of other birds of sufficient size, Crows, Hawks and Magpies being most commonly used, however, I have never yet known of this species taking forcible possession of other nests, but select nests of the year before, making them habitable by a lining of grasses and feathers. A nest of its own building is a rough, bulky affair of sticks and lined as above. Out of some forty nests found I can not vouch for more than one-tenth being made by the birds themselves. Mice, Gophers and Cotton-tail Rabbits furnish their diet and the nest becomes rather filthy after the young have hatched.

124. *Asio accipitrinus* (Pall.). Short-eared Owl. Resident; rare (?). Breeds in southeastern and southwestern portion of the state. Begins laying in April. Eggs four or five. Nest on ground on open prairie, or more commonly

upon mesas under clump of scrub oak, or a bunch of high grass, or sagebrush.

125. *Syrnium occidentale* (Xantus). Spotted Owl. This species was reported by Smith and Anthony* of Denver, but in a recent letter from Mr. Smith he has the following: "In looking over some owls recently, my attention was called to the genus *Syrnium* and I came to the conclusion that the supposed Spotted Owl captured at Denver and mentioned in the 'Auk' was not of this species. I accordingly wrote to Mr. Anthony, who now resides in California, who writes 'that the bird in question is not *S. occidentale*.' Therefore *S. occidentale* as a Colorado bird rests on the authority of Mr. Chas. E. Aiken." In correspondence with Messrs. Smith and Anthony, Mr. Aiken assured them he had taken "several specimens which he refers to this species." I am almost positive I have seen this species in La Plata county but took no specimens, and may be mistaken. It would be interesting to hear Mr. Aiken's experience with this species.

126. *Ulula cinerea* (Gmel.). Great Gray Owl. The record for this species rests upon Mr. Drew†; he says, "One evening in February, just at dark, I saw a pair of large, gray, tuftless Owls which I think were of this species. Its 'hoots' were different from those of *Bubo Virginianus*."

127. *Nyctala acadica* (Gmel.). Saw-whet Owl. Only one specimen known, which I took in southwestern Colorado. Rare in mountainous portions of the state. I would advise collectors to look for this species in the mountains as I think it will be found to be tolerably common.

128. *Megascops asio* (Linn.). Screech Owl. Reported by Capt. Thorne from eastern Colorado. Resident.

129. *Megascops asio maxwellie* (Ridgw.). Rocky Mountain Screech Owl. Resident; common. Nests in hollows of trees, laying generally four eggs.

130. *Megascops flammelus* (Raup.). Flam-mulated Screech Owl. Tolerably common in southwestern Colorado. Breeds in hollows of decayed trees, depositing four white eggs. Habits similar to the preceding, and I think a resident wherever found. I have seen this species mostly in pinon groves. Eggs are laid in April, and by first of May the young are hatched. The nest is often in Flickers' holes which are somewhat decayed, and filled with an odd assortment of the bark of the grease-

* See O. & O., Vol. XIII, No. 5, May 1888, p. 75.

† Auk, Vol. III, No. 2, pp. 284-286, 1886.

‡ B. N. O. C., Vol. IV, p. 141, 1881.

wood, grasses, feathers and anything handy, the top being firmly matted together. The young generally fill the cavity so that it is a matter of surprise how the old bird finds room for itself. I have seen the female leave the nest, and climbing to it found it completely filled up with hungry nestlings. I know of no Owl whose young are as pretty, the down is gone and the regular plumage is on before leaving the nest. Are easily tamed, and this and the preceding make very amusing pets.

131. *Bubo virginianus subarcticus* (Hoy.). Western Horned Owl. Common and resident in low altitudes throughout the state. Breeds in the thickly wooded river bottoms in hollow trees, and in old Hawks' and Crows' nests, sometimes building a nest of its own, but not when it can save such an amount of labor.

132. *Bubo virginianus arcticus* (Swains.). Arctic Horned Owl. This is the variety to which I refer the alpine specimens of the mountains, they showing as much difference from the plains specimens of *subarcticus* as my Montana birds do, and in some cases are even lighter. Just where we can draw the line of its most southern extension has not been yet ascertained, but I think true *arcticus* will be found as far south as the southern border of the state in the main chain of the Rockies.

133. *Nyctea nyctea* (Linn.). Snowy Owl. A rare winter visitant in the state. I know of but two authentic cases of its occurrence.

134. *Speotyto cunicularia hypogaea* (Bonap.). Burrowing Owl. A common resident, and breeds up to 9,000 feet. So much has been written upon this species that it would be superfluous for me to add anything more, but I will say that several instances of its feeding upon the young of the Prairie Dog have come under my notice, and its familiarity with the rattlesnake is now, I hope, a fact too tough to be digested.

135. *Glaucidium gnoma* (Wagl.). Pygmy Owl. A resident in southwestern Colorado, and reported by H. G. Smith, Jr.,* of Denver, who took a specimen on Bear Creek. I found it breeding in La Plata county, the eggs being deposited in deserted Flickers' holes in pine trees or stubs. I secured four sets of their eggs in 1886 and 1887,† and found one nest

with four young in June, 1886. All the nests found were in trees, growing on the sunny side of deep gulches, which were covered with a growth of tall pines. All were found from the 1st to the 22d of June, showing them to be rather late breeders. Their preference for the pine gulches may account for this as the snow is a long time disappearing from these places. While spring seems to be just beginning in these deep gulches, it is well along at the tops and many small species have young in the nest while the Juniper bushes are in full leaf. Here the mercury standing at 60°, if you slowly descend into the gulch you will find the temperature to become cooler until finally at the bottom it is just above freezing.

136. *Conurus carolinensis* (Linn.). Carolina Paroquet. Formerly found in eastern part of the state, but there are no late records, and it is doubtful if it ever occurs again.

137. *Geococcyx californianus* (Less.). Road-runner. Found in summer on the Ute reservation in southwestern Colorado, and there is no reason why it should not be found along the southern border, east of Pueblo and Trinidad. Drew gives it as breeding at 5,000 feet, but whether in the state or not I can't say.

138. *Coccyzus americanus* (Linn.). Yellow-billed Cuckoo. Summer visitant; rare. Observed by Drew, Anthony and Nash. Breeds, eggs three to six, and I am positive that in the West this bird deposits its eggs as any sensible bird does, and they are hatched near together, and not at intervals.

139. *Ceryle aleyon* (Linn.). Belted Kingfisher. Summer visitant; common. Observed by all the members, reaches and breeds at 10,000 feet.

140. *Dryobates villosus harrisi* (Aud.). Harris' Woodpecker. A resident in southwestern Colorado, also noted by Drew at 11,500 feet, and observed by Anthony near Denver. Most commonly seen in winter busily engaged in feeding near the tops of the tall pines of the gulches, preferring these to the trees along the river bottoms, where it is found in smaller numbers. It breeds among the pines almost exclusively.

141. *Dryobates pubescens gairdnerii* (Aud.). Gairdner's Woodpecker. Resident; common, from the foothills of the mountains westward. Often seen in same localities as the preceding but is more common in the river timber than that species, and it breeds mostly in decayed cottonwood stubs and aspens.

142. *Picoides americanus dorsalis* (Baird). Alpine Three-toed Woodpecker. Reported in

* Auk, Vol. III, No. 2, pp. 284-286, 1886.

† I was not aware at this time that these eggs were so rare, or I should have made a somewhat different disposal of them. Two sets are now packed among my boxes in Massachusetts, and the others are promised to the Museum of the Colorado Biological Association as soon as rooms are obtained for this purpose.—C. F. M.

Drew's list and observed by me in La Plata county. It was also observed by Mrs. D. D. Stone,* who saw "5 young birds on July 10th." I never saw it except in the pinon groves south of Fort Lewis, at 8,500 feet, and I think it may breed there. It is not found below 7,000 feet, and breeds as high as 12,000.

143. *Sphyrapicus varius nuchalis* (Baird). Red-naped Sapsucker. The only Colorado record of this variety is in Drew's list, and that of Mr. Denis Gale,† of Gold Hill. I also observed it in La Plata county, and found it abundant during the breeding season. Drew also enters the eastern form upon the authority of Prof. Ridgway, but I cannot think that it occurs unless as an accidental visitant in northeastern Colorado, and this would be far out of its range. In Captain Bendire's article in the "Auk" is the best account of this bird I have yet read, and I can add but a few new facts regarding its habits. I have found it breeding in aspen trees and also in cottonwood stubs, from one to five feet from the ground. Near Ft. Lewis, along the river bottom, are many places where the cottonwood trees have been cut down to build "shacks" and "dugouts" to serve for shelter for the troops who first began to build the military post. The first site selected was about three miles north of the present location, and here is found the largest tract of the cottonwood stubs spoken of above. The Red-naped Sapsucker finds these very convenient for nest building, and I took several sets of eggs here. Most of my eggs were taken early in June, and the sets were of three and four. The larger part of the egg is imbedded in the chips, and it was seldom that two eggs touched. Where I found nests in aspens they were built higher (even as high as 20 feet), but I found no nests in cottonwood above 5 feet. The birds did not breed as early by three weeks in 1887 as they did in 1886, although the winter was colder, there was not as much snow. I captured a female on one nest, took her home (three miles), and set her free just after dark. I was at the nest next morning at 4.30, but she had got there ahead of me and with her mate was examining the extent of the damages done to their domicile the afternoon before. They finally flew off, but I have strong suspicions that I took a second set of three eggs from the same birds not 500 yards from the old home.

144. *Sphyrapicus thyroideus* (Cass.). Wil-

* See O. & O., Vol. IX, No. 1, p. 10, 1881.

† See "Bendire on the habits of the genus *Sphyrapicus*," Auk, Vol. V, pp. 225-240, July, 1888.

liamson's Sapsucker. An abundant summer resident throughout the entire pine belt, frequenting the pines in preference to all other trees. It is exceedingly wary, and although I saw several, I only succeeded in shooting one single female, and this flew into the top of the pine tree under which I was eating my lunch. The male and female of this species were long supposed to be separate, ornithologists even going so far as to place them in several different genera, but Mr. H. W. Henshaw, in 1873, found them mated and breeding in this state near Fort Garland, which fact found for us a long looked-for female of *williamsoni* and a male of *thyroideus*. The great difference in the sexes caused all the trouble, and it is not a matter of wonder. Drew records it as high as 10,000 feet, and Mr. T. Marten Trippe found it common at Idaho Springs and marks it as "migratory; breed." I have not found its nest, but Mr. Gale* took eggs on May 26, 1887. The nest complement is said to be "five or six," and Captain Bendire gives the average measurements of seventeen specimens as .97 x .67.

145. *Ceophlaeus pileatus* (Linn.). Pileated Woodpecker. I enter this species although there is no record except that of Drew. In "Birds of San Juan County, Colorado," he says, "I have been told of 'a great big Wood-pecker,' and from the description think it to be this bird." There seems to be no better place in the United States than the timbered portions of Colorado for this bird, and it is somewhat surprising that ornithologists have not met with it in the state. It must indeed be rare if not extirpated in Colorado.

(To be continued.)

Charles F. Morrison.

A Series of Eggs of the Golden-cheeked Warbler.

The following description of what is believed to be the largest series in existence of the eggs of the Golden-cheeked Warbler (*Dendroica chrysoparia*) will, I am sure, be interesting to the readers of the O. & O., owing to the extreme rarity of the bird, and the fact that its eggs are only represented in very few collections, and in nearly all of those by only a single set.

A singular fact is that all the sets of eggs of this bird that I have heard of (and I think I

* Auk, Vol. V, No. 3, p. 238, July, 1888.

know of all that are in collections) were taken in Comal County, Texas.

Set I. June 8th, 1886. Comal County, Texas. Nest in fork of red cedar, fifteen feet from the ground. Four eggs, fresh. Light creamy-white, speckled with cinnamon-rufous, and a few markings of lilac-gray. The specks are closer together near the larger ends, where they form indistinct wreaths: .67 x .51; .63 x .51; .65 x .50; .67 x .51.

Set II. June 27, 1880. Comal County, Texas. Nest in cedar tree. Four eggs, fresh. Light creamy-white speckled with bay and lilac-gray. The markings are nearly all grouped near the larger ends: .65 x .51; .62 x .52; .65 x .51; .65 x .51.

Set III. June 12th, 1886. Comal County, Texas. Nest in cedar tree, eight feet from the ground. Four eggs, fresh. Creamy-white, speckled with lilac-gray and bay. The markings form indistinct wreaths near the larger ends: .65 x .51; .65 x .51; .65 x .50; .68 x .52.

Set IV. May 28th, 1886. Comal County, Texas. Nest in fork of cedar tree, fifteen feet from the ground. Four eggs, fresh. Light creamy-white, wreathed near the larger ends with specks of chestnut and lilac-gray. There are also a few specks and spots of chestnut scattered over the rest of the surface of the eggs: .67 x .50; .66 x .50; .67 x .51; .67 x .51.

Set V. May 25th, 1886. Comal County, Texas. Nest in fork of red cedar tree, fifteen feet from the ground. Four eggs, fresh. Light creamy-white, speckled and spotted with lilac-gray and cinnamon-rufous. There are also a few spots of chestnut. The markings are scattered all over the eggs, but are heaviest near the larger ends: .64 x .51; .66 x .52; .63 x .51; .62 x .54.

Set VI. April 18th, 1888. Comal County, Texas. Nest in red cedar tree, ten feet from the ground. Four eggs, incubation three-fourths. Light creamy-white, speckled with lilac-gray and chestnut. The markings are heaviest near the larger ends, where they form indistinct wreaths: .69 x .52; .68 x .51; .66 x .51; .69 x .52.

A typical nest, now before me, is securely fastened in the fork of a red cedar. (The lower part of the branch below the fork measures 1.75, and one fork measures 1.40, and the other 1.00 inch.) The outside depth of the nest measures 2.22, inside depth 1.70; outside diameter 2.40, inside diameter 1.50.

It is made of strips of the bark of the red cedar neatly and compactly woven together, and lined with horse hair and a few feathers.

Songs in the Night.

Did you ever hear at dead of night, when all was still, the clear, ringing note of some silver-toned bird vocalist? How strange its song seemed amid the darkness. And yet how beautiful.

Well do I remember one night in June when as I lay listening in the silence which brooded over the gloomy forest primeval, I heard at midnight the delicious fairy-like music of some tiny bird, awake like myself and half dreaming, too, like me, perhaps of some far-away promised clime, where all is blissful, serene contentment.

But who knows what the little singer dreamed when she poured forth her song of love. Was not the cause, perchance, some pleasant thought of her dear little birds asleep somewhere in their cozy hidden nest? How few of our birds besides the weird hooting owls sing in the night; surely we cannot prize them too highly; Gambel's Sparrow, one of the commonest of its tribe in California, has a song of delightful melancholy sweetness, and it loves to sing in the dusk of evening, and after other birds have gone to rest. I once heard one singing after eight o'clock in the evening.

I was riding after dark recently and about half past seven I was unexpectedly regaled by the pleasant, cheerful note of some merry-hearted Meadow-lark singing one last song before it slept. I could only think him my thanks for his solo and pass on.

One of our sweetest singers is the Russet-backed Thrush. In the spring-time during the quiet hours of twilight it sings its best song. Many an evening I have listened with a peculiar restful pleasure to its liquid, far-away warbling notes. The word "Israel" with the last two syllables repeated twice in quick succession will give some idea of its charming carol. Our sweet-voiced bird is a very early riser, and though it seldom sings its song then, it is heard at the first grey streaks of dawn whistling its short call to its mate in some neighboring tree.

In the genial warmth of the kind old sun all nature is quickened anew to its never-ending activity, and in every field and in every wood the birds are expressing their praise to the All-Creator in cheerful, gladsome song. Glorious, happy daylight is truly the natural element of bird songs, and how glad we are that some few there be that will sing in the night!

Harry R. Taylor.

Alameda, Cal.

J. P. N.

South America.

Messrs. Southwick and Webster:

Since my last letter, nothing of importance in the line of collecting has occurred. I find that my supply of powder and shot is rapidly disappearing, and as it cannot be obtained to advantage here (at Para), you will have to arrange at once to send me a stock as it will take some time to reach here. I find that in using No. 12 shells I succeed in hitting about three-quarters of the birds I fire at, and at least one-quarter of them are either lost or are too poor to save. In using my small auxiliary barrel I find that I get nearly as many and that the saving of ammunition is great. I now hope to send you an invoice by April 1st. Birds are not as numerous or in as bright plumage now as they will be two months later. I have not been successful with the Great White Herons. I have to shoot them on the wing, and they come down full force into the black mud, which is impossible for me to remove. In skinning they dry so quickly that the feathers on the neck set in all directions. One of your boys in your back shop could fix them up in ten minutes better than I can here in half a day. There are no Scarlet Ibis anywhere on the river; down at the mouth where they were so thick a few years ago they are exterminated. I saw only one at Para, and the price was so high it was not advisable to buy it. I have seen no Roseate Spoonbills, but I hear they are to be found about forty miles from here; will make a trip in that direction shortly. The Great Horned Screamer is found all through here.

There seems to be some difference in the birds about keeping, after being shot. A Fork-tailed Flycatcher, which I killed at 12 o'clock, was *absolutely rotten* at 2 o'clock. The largest birds will not keep over twelve hours.

Perhaps a short description of the grounds I am expected to collect in may be interesting, so I will write about

The Picado or Hunters' Path.

One of the first trips I determined to take on arriving here was to be through the thick forest. A short distance back from my shanty, commencing at the edge of a sugar-cane patch running due east about six miles and ending at a small pond, is a "Picado," or hunters' path, and this I decided to take. A person who has never had the pleasure of visiting an Amazonian forest is very apt to form some

vague and erroneous ideas, and I never formed any worse one than I did of a hunter's path. I supposed it was a narrow, well-beaten path through the forest, with huge trees meeting at the top, making a sort of canopy overhead, and making a delightful place to walk through. I started early one morning, determined to have a pleasant day's tramp. I walked around and around the cane-patch, vainly looking for the aforesaid path, and indeed it was vainly looking, for after a half-day's searching I could not even find the commencement of it. So I gave it up as a bad job, and decided to get a friend to accompany me on the next day. So on the morrow, at daybreak, we started forth, and it seemed as though we walked directly into the thickest part of the woods. A simple blaze on a tree marked the commencement of the path. Alas! my beautiful vision of a hunter's path faded, and the first mile was over before I could even find a sign of a path. We walk along a little way; a blaze on the right hand side shows that we are all right, a little farther ahead another on the left hand, then we see no sign at all, so we get down on all fours to examine the ground. Here is a twig broken off—we are all right, and go ahead, and this kind of travelling is kept up all day long. Three times we lose the path, and each time we must carefully retrace our steps, for if we should get a hundred feet ahead, and see no blazed tree or other sign, we know that we are off the track, and must carefully retrace our steps, and oftentimes it will take half an hour to find the right place in the path which is not a hundred feet away. It is the easiest thing in the world to get lost and it is only the very best hunters that will go off into the woods alone, even by one of their own paths. Two usually go together; while one follows up any game he may chance to see, the other just stays by the path to hold it, and when the first hunter is ready to return all he has to do is to hello to his companion and to follow up the sound of his voice, thus saving maybe several hours in searching for the path. The natives never use a compass, and as the wind usually blows and all the tall trees lean in one direction, they can readily tell which direction to take. About 11 o'clock, we came to two gigantic forest trees side by side, and my companion says, "Let's have dinner." Now I was desperately hungry and thirsty as well, and as we had brought no lunch with us I thought it was too bad to joke over so serious a subject. But he laid down his gun, took off his cartridge belt and com-

meneed to look under one of the trees, and soon had a dozen large castanas full of nuts (Brazil nuts). Well, we ate and ate, and I tell you a dinner of Brazil nuts is a great deal better than no dinner at all. The other tree was the "Ta-be-da-bar," an immense lofty forest tree, having a small yellow plum-like fruit which is edible. But what interested me mostly was the root, which grows right on the surface of the ground. Taking his "teacada" hunting knife, my companion commenced to cut off a root about six feet long and three or four inches in diameter, while I looked on, wondering what he was going to do with it. As soon as it was cut off I was told to open my mouth and drink, and I did drink about a pint of the purest water from out of that tree-root that I ever had the pleasure of drinking. That recalls to memory the expression of an old friend at home, "'Tis a great country where water runs out of a stick." An hour's walk farther on brings us to the pond, so-called, the terminus of the path. The pond was a small mud-hole in the dry season, about twenty-five feet across and three to twelve inches deep, and all covered with wild hog wallow. I came here mainly to shoot a bird called by the natives the "Mountain Rooster," which from their description I think to be the cock of the Rock, but as they are very rare indeed, I was unfortunate in being unable to shoot one. During our walk to the pond we did not see a thing to shoot, not the least sign of animal life except mosquitoes, but going back we had little better luck. A good many days of hard tramping through the forest without firing a shot or seeing a thing to shoot has demonstrated to me pretty clearly that collecting in the forest is not the thing, but on this day we were more fortunate, on our return shot a monkey and a small young armadillo, which we ate. Monkey meat is very good indeed, but armadillo is fine. I should have made a skin of the armadillo, but it was too young to be of any value. We arrived home at just dark, after a hard day's tramp of nearly thirteen hours.

Wm. Smith.

Santarem, Brazil, March 24, 1889.

More from Frogmore.

A WHITE BLACKBIRD.

Early one morning last November I came in sight of my home. That is not an unusual thing, but it was unusual for me then for I had not seen it since August. I was tired,

wet, and hungry, and that is even a less unusual occurrence. But among a flock of Boat-tailed Grackles that fluttered about the deserted yard was one that was *pure white*. I could scarcely believe my eyes. I unlocked the door, deposited my luggage, and after getting the big spy glass clear of cobwebs, had a good, steady look. There could be no mistake. The bird was a "Jackdaw" sure enough, and the glass showed only faint traces of cream color overlaying the white. It was plainly a female from the size and proportions, and the rest of the flock did not seem to notice that they had such a *rara avis* among them. I put on the hominy pot and took a peep out of the window; stirred it and peeped again, looked over my shoulder while I ground the coffee and so spilt half of it on the floor but I would have given pounds of coffee and gone a month without that cheering beverage to have had that "white blackbird" in my hands.

But what was the use of all my yearning? My gun was away down in Palatka in quarantine, under suspicion of having the yellow fever. By right I should have been with it and not it with me. My little collecting pistol could not possibly expect to reach such a wary bird as a Jackdaw and the only other piece of artillery I had within reach was a big Sharpe's rifle that threw a 56-100 ball. For weeks I just watched that bird with longing eyes. I learned his—her, I should say—whole history from the neighbors. It was hatched in an oak tree about twenty rods from my door, and was whiter "when it was first born." Be that as it may, it did seem to me as I watched it from day to day as if the shades were getting darker about its neck, and before my gun arrived I began to wonder if the beautiful bird wasn't going to slowly fade away into black before my disconsolate eyes.

Well, to cut a long story short, my gun came at last and in a few days I was joined by an ornithological friend from Boston. The "white blackbird" was still at large, and as I expatiated to him upon its beauties the first night of his arrival I thought I detected a slightly incredulous look; also, I was mean enough to tell him I had been saving it for him. I hereby confess all. It was bullets as big as small potatoes that really saved that Jackdaw so long.

Next day we had a glorious tramp. I showed my friend lots of my favorite little nooks and corners and gave him a round of Snipe shooting, such as he had never even dreamed of before; and we got lots of other nice birds, too. And it made me think of long bygone

days when everything hereabouts was new and strange to me, too.

As we neared home along the edge of the Snipe bog an exclamation from my comrade caused me to turn and there was the "white blackbird" coming directly towards me. As I fired down she came and my friend cried, "I was sure I should hit him."

"What, did you shoot, too?" said I.

"Yes, did you shoot?" said he.

Our guns had made but one report, so simultaneous was our action, and there lay the beautiful bird just riddled at close quarters with two heavy snipeloads of eights. I succeeded, however, in making up a very good skin, though it took time and patience.

When in hand the specimen showed a decided brownish work over nearly all the plumage. The eyes were bright pink and the bill and feet also much brighter colored than the normal tint of the species. The tail was also considerably worn. I am still of the opinion that when in first feather this specimen showed only very faint traces of coloring over the white. Is it not possible that part — possibly all — partial albinos are nearly white at first? The viscera of this specimen were too badly mutilated to be examined well. I searched for intestinal worms which some authorities lead us to suspect are in all albinos, but found none.

FOOD OF THE LOGGERHEAD SHRIKE.

A few days ago I noticed a Loggerhead pounce down in a little patch of grass and shrubs and as he fluttered up again a full-grown Cotton Rat ran out and fell dead almost at my feet. An examination of the specimen showed that the jugular vein had been severed. Though I knew this little bird to be extremely bold and rapacious I have never known it to attack an adult animal of this size and think it probable that he mistook it for some smaller animal when he flew down to attack it and that his success in killing it so easily was more an accident than any actual "trick of fence."

Be that as it may, the incident set me to thinking, and as there seems to be some interest at present concerning the food habits of its cousin, the northern Butcher bird, I have looked up my old record of this species and give it to the readers of the O. & O.

In 1886 I dissected twelve specimens of the Loggerhead Shrike and found the food to be as follows:—

- 4 Four contained portions of animals plainly shown by the hair.
 - 2 Two contained portions of birds. Species undetermined.
 - 1 One contained portions of a Savannah Sparrow.
 - 1 One contained beetles.
 - 1 One contained a grasshopper.
 - 1 One contained head and thorax of a locust.
 - 1 One contained insects.
 - 1 One contained bones. No hair or feathers.
- 12

Thus it appears that eight out of the twelve had been feeding on birds or animals. The only comment I will make is to say that I am surprised to find such a large percentage of insects.

NOTE ON THE KILLDEER PLOVER.

Of late several correspondents have asked me if there was anything to be remarked regarding the abundance of this bird at this locality during the present season. Up to this month I could not notice any peculiarity about them. Their numbers seemed to be about as usual. But about two weeks ago they disappeared entirely. I have seen none since the first week in January anywhere about here. My tramps have extended about twelve miles in all directions. The Snipe seemed to leave about the same time, but to-day they are back in force or even more so, but not a single Killdeer is to be seen or heard. There has been no phenomenal weather to cause it. The Snipe often takes such fits and starts, but the Killdeer generally comes and goes quite gradually.

Walter Hoxie.

Accidents Among Birds.

An article in the March number of the O. & O., by Mr. Cahoon, on the capture of a Tern by a Quahog and a Duck by a Sea Clam, prompts me to record a few of my field notes bearing upon the subject of accidents among birds.

Although accidents are probably more numerous than generally supposed, still, compared to the numbers caused by the direct agency of man, they are of sufficient rarity for note when observed. In some portions of the country, notably in the west, many birds are killed by striking telegraph wires during migrations, and many die from like mishaps at the various lighthouses in the maritime sections, as shown by the reports of the keepers to the committee on migrations, appointed by the A. O. U.

In Massachusetts, however, there appears to be a much smaller per cent. of instances where injury or death resulted from these causes than in other parts of the country, and during the last ten years I have only found three instances where birds have been disabled or killed by contact with telegraph wires. The first instance was that of a Mourning Dove, during the fall of 1879. The next, a Swamp Sparrow in September, 1886, and the last, that of a Fox-colored Sparrow, in April, 1888.

Of accidents from other causes I have record of four more cases, one of a Snowbird, which flew against a window in broad daylight; an Acadian Owl, which struck a brilliantly lighted window in the evening; a Flicker, which upon skinning was found to have a deep dent in the dome of the skull, much like one so frequently made in Derby hats; and one, more unusual than all the others,—the case of another Flicker which I found dead in an excavation formerly occupied by one of his species as a nest. This was on February 22, 1886, and the feet of the bird were frozen to a sheet of ice on the floor of the cavity. Undoubtedly the bird had taken refuge there during a rain-storm, and a sudden change of temperature had frozen the little water that had blown in by the wind, and thus the poor bird was imprisoned until his death.

Harry Gordon White.

Amesbury, Mass., April 10, 1889.

A Series of Florida Eggs of the Bald Eagle.

I have lately had an opportunity of examining a series of twenty-six sets of forty-seven eggs of the Bald Eagle (*Haliaeetus leucocephalus*) which were all collected in the Indian River region of Florida, in two seasons, by Dr. William L. Ralph, of Utica, N.Y. So large a series from one locality being unrecorded, so far as my information goes, I found the data exceedingly interesting, so, hoping that the readers of the O. & O. will be interested also, I write this. Some of the noticeable items of the data are,—

1st. The early date of collection. Think of collecting a set of eggs "slightly incubated" on Nov. 25th! Some might question whether this should be called "early" or "late."

2d. The number in the sets. Of the three sets of one each, two were perfectly fresh (probably not complete), and the third was deserted; therefore, it would be practically

correct to say that the number in each set was two; while many of the books say three and even four.

3d. The size of the eggs. The average is 2.76×2.14 , while the size given in all the books at my command (except Ridgway's last) is 3.00×2.50 , or thereabouts.

4th. The shape of the eggs is far from "nearly spherical" as given in most of the books.

5th. The slight variation in size of these forty-seven eggs. The length: average, 2.76; extremes, 2.98 and 2.46. The breadth: average, 2.14; extremes, 2.26 and 1.96. It seems to me this is an exceedingly small variation in eggs of this size.

6th. The distance of the nest from the ground is constant enough to attract attention. The distance was always measured.

Having thus put my conclusions before my premises, in hopes of making the latter more interesting, I now give the data:—

No. 1. Dec. 16, 1886. 2.70×2.16 ; 2.84×2.20 . Nearly hatched; height of nest, 56 feet.

2. Dec. 24, 1886. 2.81×2.23 ; 2.98×2.21 . Nearly hatched; height of nest, 65 feet.

3. Jan. 3, 1887. 2.84×2.12 ; 2.76×2.10 . Nearly fresh; height of nest, 56 feet.

4. Jan. 26, 1887. 2.73×2.12 ; 2.69×2.13 . Almost fresh; height of nest, 57 feet.

5. Feb. 3, 1887. 2.46×2.00 ; 2.52×2.01 . One addled, one nearly hatched; height of nest, 50 feet.

6. Nov. 25, 1887. 2.71×2.10 ; 2.81×2.15 . Slightly incubated; height of nest, 58 feet.

7. Nov. 30, 1887. 2.62×1.96 ; 2.79×2.20 . Nearly fresh; height of nest, $64\frac{1}{2}$ feet.

8. Dec. 3, 1887. 2.69×2.07 ; 2.71×2.02 . Slightly incubated; height of nest, 64 feet.

9. Dec. 5, 1887. 2.84×2.20 ; 2.88×2.16 . Nearly hatched; measure lost.

10. Dec. 5, 1887. 2.80×2.23 ; 2.83×2.25 . Fresh; measure lost.

11. Dec. 6, 1887. 2.87×2.15 ; 2.75×2.11 . Nearly fresh; height of nest, 59 feet.

12. Dec. 7, 1887. 2.79×2.14 ; 2.81×2.15 . Slightly incubated; height of nest, $50\frac{1}{2}$ feet.

13. Dec. 7, 1887. 2.83×2.05 ; 2.88×2.14 . Height of nest, $50\frac{1}{2}$ feet.

14. Dec. 7, 1887. 2.79×2.26 ; 2.76×2.21 . Height of nest, 52 feet, 10 inches.

15. Dec. 13, 1887. 2.69×2.15 ; 2.72×2.11 . Slightly incubated; height of nest, 75 feet.

16. Dec. 16, 1887. 2.78×2.20 ; 2.76×2.17 . Height of nest, 59 feet.

17. Dec. 16, 1887. 2.82×2.23 ; other broken. Height of nest, 48 feet.

18. Dec. 16, 1887. 2.75 x 2.22; 2.75 x 2.17.
Height of nest, 60 feet.
19. Dec. 17, 1887. 2.62 x 2.17. Perfectly
fresh; height of nest, 59 feet.
20. Dec. 18, 1887. 2.68 x 2.14; other broken.
Well incubated; height of nest, 59 feet.
21. Dec. 18, 1887. 2.77 x 2.19; 2.80 x 2.19.
Height of nest, 56 feet.
22. Dec. 19, 1887. 2.79 x 2.05; 2.80 x 2.14.
Height of nest, 59 feet.
23. Dec. 29, 1887. 2.87 x 2.11. Nest deserted,
egg sunk in lining; height of nest, 56 feet.
24. Jan. 4, 1888. 2.61 x 2.03; 2.63 x 2.04.
Height of nest, 65 feet.
25. Jan. 20, 1888. 2.70 x 2.08. Perfectly
fresh.
26. Feb. 8, 1888. 2.96 x 2.18; 2.89 x 2.16.
One-third incubated; height of nest, 86 feet.

This last was taken near San Mateo, all the others within a few miles of the Indian River, Florida. Wherever the species of tree in which the nest is placed is not stated it is a pine.

Egbert Bagg.

Utica, N.Y.

Fall Migration of Birds at Duluth, Minn.

The season of migration is one of peculiar interest to ornithologists at the head of Lake Superior. This large body of water, with its northern limit running southwesterly and terminating in a constantly narrowing arm, presents a barrier to the southward movement of the large mass of Hawks, Flickers, Cowbirds and the vast army of smaller birds which spend the summer in the wilderness north of here, and during the fall migration, as they reach its northern margin, instead of passing over the water to the opposite shore, which lies in a dark line in the distance, they veer to the southwest, passing around and over the city which lies on the extreme end of the lake.

Those of us who endure the vigor of a winter in this Northern clime cannot but envy the birds who are able to follow an instinct which we all possess and feel when the autumnal winds presage a long dreary winter. Then a stroll up a hillside beyond the city reveals a wealth of bird life. One day it may be mostly Flickers, but these in vast numbers, some flying in long undulations high above, while others pass from stump to stump along the hillside, a steady stream lasting perhaps a week, when the Flickers disappear and a troop of Robins follow, silently flitting in the same

direction. The small boy is on hand with his sling shot, and the "sportsman" shows his bunch of robins or Yellow-hammers thoughtlessly slaughtered.

Just before the Robins arrive the smaller Hawks are moving in the same course, and for a few days nearly every stump has its sentinel keenly alert for stray grasshoppers, but every move taking them in the same southwesterly direction. The only other bird seen in large quantities and following the general path is the Cowbird, not a constant passage of single birds, but in flocks of 50 to 250. Mingled with these most plentiful and common birds are to be seen the rarer, and, from their habits, less conspicuous ones, while the larger Hawks wheeling high above, follow the line of shore until the city is reached, then take a southerly course.

During the spring migration everything is changed. From the South the same troop comes, but without the shore line to divert them to this particular hillside, they are scattered, and unless one is on the watch they seem no more plentiful than at other seasons of the year.

A vicinity surrounded by a hundred miles of pine forest is not particularly attractive to birds and usually very few are seen, so this feature of the fall migration is particularly noticeable.

F. S. Daggett.

A Day After Pine Grosbeaks.

As I was driving through the mountains the latter part of February, I came across a flock of Pine Grosbeaks in some heavy spruce woods, the first I have seen here in two years. Not having any gun with me at the time, I decided on the first pleasant day to return on a collecting trip.

So on March 4th I drove over. The day was warm and bright, and birds were more active and plentiful than on any previous day this winter. Black-capped Chickadees were very common, and the crows that stay here the year round had received some noisy reinforcements from the South. I started up a few Ruffed Grouse, and occasionally saw, on a stump or dead tree, a Hairy or Downy Woodpecker, or a White-bellied Nuthatch, while from the top of a dead pine I secured a handsome specimen of the Great Northern Shrike, but the birds I came after were minus. The walking was very fatiguing, there being two feet of snow on the ground, and although I searched the woods over carefully, I did not see a single Pine Grosbeak. As I was returning home disengaged and thinking what a wild goose chase

it was to come so far and expect to find the Grosbeaks in the same woods, I saw a small flock in an orchard, feeding on the seeds of frozen apples. They were very still and unless a sharp lookout was kept one would be apt to pass them by unnoticed. The birds when alarmed would utter a faint whistle and fly into some evergreen woods where it was impossible to find them, as they would conceal themselves in the densest part of a tree, close to the main stem. After a little while they would venture out again to feed, and the snow beneath the trees was covered with pulp from the apples opened by their powerful bills. I was fortunate in securing two handsome males and three females.

A. H. B. Jordan.

Willsborough, N. Y.

Wanderings. No. 3.

While sitting at my desk this evening, with my brain fairly aching from the labors of the day, I picked up my "Field Notes" to carry myself away from the noise and racket of the city, and imagine myself among the woods, where I have often in my earlier days found rest and relief, my eye fell upon a bit of pencil sketch, which carried me back to a day now long gone.

It was in the early part of May, 1883, a perfect spring day, in the noted old town of Braintree, Mass., that I found myself in the far southeast corner of the town near a small sheet of water known as Cranberry Pond, which lies closely surrounded by hills, and bosomed in the shades of the thick forests which surround it.

My companion was one unknown to the scientific world at large but, for all that, a true scientist, an enthusiastic collector, and a firm friend of the truest color, Mr. Geo. C. Gates, one of the first of my companions in the field, and now some time since gone "the way of all mankind" by that scourge of New England, consumption.

While eagerly scanning the high trees for Hawks' nests, and climbing the tall pines, only to find untemanted nests, we at last saw a bird dart off among the trees and following up the trace found a nest in one of the most difficult trees that it has ever been my misfortune to tackle; but the surroundings of the place almost made us forget our errand. It was a tall, slim white pine, without a limb for twenty feet, then succeeded by small twigs and crowned by a coronet of boughs. It stood in a glade by the side of a brook, one of those places which

makes one feel like shutting his eyes and in imagination hear the voices of Nature whisper their secrets to us. As a friend of mine has said, "He would like to hear the 'Messiah' sung here."

I was awakened from a reverie by a sigh from my comrade, who awoke to business before I did, and as usual we drew lots to see who would climb the tree. He drew the ticket and commenced his ascent. It was a tough job, and many times I held my breath, as he slipped back a few feet. But pluck conquered, and his shout proclaimed a prize; but it turned out to be a solitary egg of the Cooper's Hawk. Owing to the difficulty of getting there, it was deemed advisable to take this egg, and disposing of his prize in what he considered a safe place, he commenced his descent. When about thirty-five feet from the ground, in attempting to get over a dead limb, his hold slipped and he commenced to slide down, finally falling away entirely and bringing up on the ground with a thud that made my blood chill with fear. But what was my surprise, on rushing up to him, to have him open his eyes, put his hand to his mouth and produce the egg, with the laconic remark, "Got him, old man." To say that I was relieved was putting the thing mildly, for I expected to see him carried off on a stretcher, instead of which he walked out, but was pretty lame for some time.

Since that time I have "shinned" up many a difficult tree and fallen—well, more than once; but I think I shall never forget the feeling of dread as I saw him before me on the ground, nor the expression of his face as he looked up with his "got him."

F. A. Bates.

Food of the Shrike.

I have taken great pleasure in reading the discussion concerning the food of the Shrike. I have also noticed a good deal about this species catching the English Sparrow in and around the suburbs of our large cities from various local newspapers. We also have reliable accounts of various writers where these birds have taken up their winter quarters in large parks, and have made a very noticeable depreciation in numbers of this nuisance.

As for myself I have never seen the Shrike capture, nor have I ever examined a stomach that contained a bird of this species.

Following I give a list of the stomachs that I have examined, all of which were taken from birds shot in East Hartford, Conn., where it is

common during the fall, winter and spring:

No. 1. Young ♂. Nov. 7th, 1880. Stomach contained a Chickadee (*Parus atricapillus*).

2. Adult ♂. March 6th, 1885. Stomach contained remains of small bird (*Parus atricapillus?*) and a white worm.

3. Young. Dec. 7th, 1884. Stomach contained a Golden Crowned Kinglet (*Regulus satrapa*).

4. Adult ♂. Dec. 12th, 1885. Stomach empty, but was shot in the act of catching a Kinglet.

5. ♀. Nov. 20th, 1886. Stomach was well filled with grasshoppers.

6. Adult ♂. March 15th, 1887. Stomach contained a small bird.

7. Adult ♂. March 12th, 1887. Stomach contained a small rodent.

8. ♀. March 26th, 1887. Stomach not examined, but was shot while pursuing a Tree Sparrow.

9. Young ♀. Nov. 19th, 1887. Stomach contained a small rodent.

10. ♀ [?]. Dec. 7th, 1887. Stomach contained bones and feathers of a small bird.

11. ♀. Oct. 31st, 1888. Stomach contained grasshoppers.

12. ♀. Jan. 21st, 1889. Stomach contained remains of small bird.

13. ♀. Nov. 15th, 1888. Stomach contained a small bird.

14. ♀. Dec. 21st, 1887. Stomach contained small rodent.

15. ♀. Nov. 24th, 1887. Stomach contained beetles and grasshoppers.

It will be seen from the above that of the fifteen stomachs examined seven contained small birds; three, rodents; two, grasshoppers; one, beetle and grasshopper; two were also shot in the suspicious situation of catching small birds.

From this summary the larger part was small birds, while those containing insects occupy only a fifth part of the entire number. Again there is no reason to believe that the Shrikes in these instances were driven by hunger to feed upon these small birds, as they were nearly all taken during mild weather, and a "cold snap" is liable to drive them from this locality.

It would seem from the various articles that have appeared in the O. & O. from time to time, that the food of this species differs according to the locality that it inhabits; this being the case a large amount of data is necessary to bring about a satisfactory result.

Willard E. Treat.

A Squirrel in Trouble.

It is interesting sometimes when occasion permits, to watch the playful actions of our birds and smaller animals, and to note their peculiarities in each individual case. An incident happened Sept. 20th, of the past year, while I was afield, which pleased me so very much that I cannot help writing about it. I was collecting through an extensive tract of pine and scrub oak woods near Attleboro Falls, Mass., called the burnt district, as it had been burned over several years ago. It is sparsely covered with dead yellow pines, some of them broken off by the wind, with a thick underbrush of scrub oak, making a favorable locality for Warblers and Nuthatches of which I was in quest. As I was working my way along through the tangled undergrowth I noticed quite a commotion among a flock of Bluebirds, off some distance to my right. Approaching cautiously in the direction I saw a Red Squirrel sprawled on the trunk of a tall dead pine, apparently frightened out of his wits. A dozen or more Bluebirds were flying about and pecking at him, and seeming to have the greatest sport imaginable. One of the birds would dart down and snap at Mr. Squirrel's tail, and quick as a flash he would turn end for end uttering a loud bark, while another and then another would snap at it again; in this manner they kept him turning about as if on a pivot for some time, and the effect was so amusing that I laughed aloud. The squirrel tried going up the tree, but the higher he went the worse the situation grew, finally he gave a loud *squir-r-r* and sending down the tree disappeared. The birds all lit and looked about for their victim, but Mr. Squirrel did not appear again. Edward Tennant.

Carolina Wren.

While out collecting, February 9th of this winter, I shot a fine male specimen of the Carolina Wren (*Thryothorus ludovicianus*) near Towson, Baltimore Co., Md. Is not this very far north for this species in winter? Cones in his "Key" states that its occurrence north of Washington in winter is doubtful. Towson is fully forty-five if not fifty miles north of the District of Columbia. J. H. Pleasants, Jr.

P.S. Cones does not use the same words given above, but to me they confer the same idea.

J. H. P., Jr.

Curious Nesting Places.

The following brief notes may be of sufficient interest for publication in your valuable magazine, the O. & O. They struck me at the time as being instances of what singular places birds sometimes choose to breed in.

The first case was that of a Killdeer Plover, which I found breeding on the railway embankment at St. Clair, Ont., within two yards of the track, where trains were passing very often. There were four eggs in the nest, incubation well advanced.

At Belle River, Ont., an English Sparrow was attempting to build its nest on top of the wheel on a railway semaphore rod. Every time the semaphore was thrown up the nest was destroyed. The bird had been working for a week when I saw it but am unable to say how much longer it persevered.

Another case was that of a robin that was sitting on eggs underneath the flooring of an overhead railway bridge, with the trains constantly passing. I was unable to see the result in this case.

Last summer I had a three-mile walk for nothing after a "Red-breasted Mocking-bird." I had been making inquiries about the kinds of birds that were found in Essex Co., Ont., and a young French boy who spoke English very imperfectly informed me that he knew where there was a mocking-bird breeding. He said it was red and black, and was a beautiful singer. He had one once in a cage. As you can imagine, I was very anxious to see this wonderful bird and persuaded him to take me to the nest. Imagine my disappointment on seeing—a robin. *Ernest B. Thompson.*

Hamilton, Ont.

Capture of an Acadian Owl under Peculiar Circumstances.

On the evening of January 21st, as I was passing through Main St., I was startled by something passing with the swiftness of a snowball, but with the silence of a moth, close to my ear, and I turned in time to see the unknown object strike the glass door of the store I was then passing, and fall to the ground. Perceiving that it was a bird of some kind, I captured it under my hat, and it proved to be a specimen of the Acadian Owl (*Nyctale acadica*), which I kept captive. The little fellow was very fearless and would strike viciously at my hand whenever I put it into

his quarters, but, as he refused to eat, he died within two days of the time of his capture. This owl is apparently more destitute of sight during the day than others of his relatives which I have had in confinement and was very wild, spending most of the night in beating himself against the wires of his cage. I think it probable that, while passing over the city, he was attracted and dazzled by the bright lights, which caused his untimely capture.

Harry G. White.

Taunton, Mass.

Nesting of the Cinnamon Teal.

The pretty little Cinnamon Teal (*Querquedula cyanoptera*) arrives here early in May, and by the middle of June generally has a full clutch of eggs which are nine or ten, the latter being the greatest number I ever found. It chooses for its nest a dry spot about a hundred yards from the water, and excavates quite a deep hole which it lines with grass and down from its own breast, always choosing a spot that is overhung with long grass, which it utilizes to form a canopy for the double purpose of shade as well as a screen to hide her while setting from the hungry hawks.

It is almost impossible to find the nest until the old bird commences to set, as she covers her eggs with the down whenever she leaves the nest after laying, which is very early in the morning. The female while setting will almost suffer herself to be trodden on before she will leave her eggs. In hunting for them I usually trail a long heavy rope, one at either end, that generally starts her ladyship.

The eggs are of a creamy color, roundish in shape, and average about 2 inches by 1.35. I have never started the male bird from the nest, and don't think they ever set.

William G. Smith.

Loveland, Col.

Brief Notes.

Yellow Rump Warbler, April 12th, at Halifax; first arrival. *H. Austen.*

I have an old book, printed over one hundred years ago in England, describing a voyage to the North Sea by the Danes. From a description I think they saw the Great Auk. Possibly they may be there now? *Dr. T. S. Hitchcock.*

A fine head of a Buffalo was sent to W. G. Smith, in April, from Wyoming Territory, to be mounted.

Two Rusty Blackbirds arrived at Central Park, N.Y., Saturday, March 9th. They were earlier than in the two previous years. *Jenness Richardson.*

T. V. Ostrand, in the employ of C. K. Reed, secured two fine specimens of the Loggerhead Shrike, April 10th. The ♂ was a clear white on underparts, while the ♀ was ashy with the wavy markings. Mr. Reed also received early in May a fine specimen of the Black-necked Stilt, shot at Rockland, Maine.

Charles F. Morrison, whose articles on Colorado birds have attracted so much attention, has been seriously ill with pneumonia. At last accounts he was convalescent. He has the best wishes from an extended circle of friends.

The new A. O. U. list is hardly dry from the press when it is offered at a cut rate combination price. If the price, 50 cents, is too high for it, then lower it; or if it requires a premium, make it universal. We maintain that it is a very poor plan to have as many prices for a standard publication, as there are dealers—and publishers.

During the past year corporal punishment was administered 18,000 times in the public schools of Boston, and we venture to say in nine cases out of ten for trivial offences. We do not believe in it. Here is a good chance for President Angell to show his extreme love for all creation.

H. Ansten took five trout at Cold Harbor. They weighed 14 1-2 lbs. The ornithological part is that he used flies made of feathers.

The Scotch societies in Boston have found out where they can get eagle quills and the demand for turkey feathers has fallen off.

Six eggs of the Wandering Albatross from Desolation Islands, measure: 5 x 3, 4.75 x 3.08, 5.20 x 2.90, 5.12 x 2.95, 5.08 x 3.10, 4.78 x 3.11; the color is similar to that of the Brown Pelican and shell very thin.

Two hundred and thirty of last year's subscribers to the O. & O. have not renewed, but their subscriptions are coming in slowly. Should they all renew our subscription list would be the largest we ever had.

A TERRIER CARRIED OFF BY AN EAGLE.—For some time past the farmers on the Quantock Hills, in West Somerset, Eng., have been at a loss to understand the numerous disappearances of young lambs which have taken place. Two or three weeks ago, however, a bird of the eagle species, apparently of enormous size and strength, was observed flying about near the combes around the West Hill, and it is to this unusual visitor that the depredations upon the lambs are ascribed. There is evidently some ground for the supposition, as within the last few days two ladies were riding near Staple Plain, accompanied by a small rough terrier. The dog strayed away for some distance, when the eagle was seen to suddenly swoop down and, seizing it with its talons, carry it off. The bird is believed to be a golden eagle. This is not the first time that eagles have been seen among the wild hills and moors of West Somerset. It was but a few months ago that a white-headed sea eagle was shot on the coast near Watchet.—[Yorksire Post, March 9, 1889.]

Capt. Mark Cole of the Ohio river steamer "Sentinel" vouches for this incident: On Wednesday last, while in midriver en route to Goleonda, he crippled with a shotgun a huge black eagle which was soaring slowly toward the Kentucky shore. The bird fell about 100 yards on shore below Hamlettsburg, and after considerable trouble was secured and taken aboard the boat. Its wings measured eight feet two inches from tip to tip. The bird was taken to Goleonda, and, as it was supposed to be badly crippled and unable to fly, it

was put in a courtyard, which is surrounded by a high wire fence. Yesterday a colored boy, 9 years old, ventured within the enclosure and excited the ire of the eagle, who instantly pounced upon the child, and, fixing his talons into his shoulders, began slowly ascending, flapping his broad wings violently. The boy screamed loudly in his terror and pain. Assistance arrived when he was suspended five feet from the ground. The eagle dropped his prey and quietly alighted in a corner of the yard, apparently not in the least excited over his failure to procure a winter supply of food. The shoulders of the boy were considerably lacerated.—[Albany Evening Journal.]

A FOOLHARDY EAGLE ATTEMPTS TO KIDNAP A CONNECTICUT FARMER.—Portland, Conn., April 23d.—This morning, as Daniel Button was approaching Pascouset pond, a large gray eagle swooped down and tried to seize him as prey. The bird fastened his beak and talons on his arm, and Button grabbed the bird's neck, at the same time yelling loudly for help. A neighbor and his son came to the rescue and after a severe tussle the eagle was overpowered, captured and taken to Button's house, where he now is. The eagle measured nearly 7 feet from tip to tip. He was lean and hungry, and had evidently intended to breakfast on Button. The bird stands 30 inches high, and although very poor, weighs 20 pounds.—[Boston Globe.]

Extracts from the Fish and Game Laws of Massachusetts, 1888.

FISH.—WHEN NOT TO BE TAKEN.

Black Bass, between Dec. 1st and July 1st. Penalty, \$2-\$20.

Trout, Lake Trout and Land Locked Salmon, except in Berkshire Co., between Sept. 1st and April 1st. Penalty, \$5-\$20.

Salmon, between Aug. 1st and May 1st. Penalty, \$10-\$50.

Smelt, between March 15th and June 1st. Penalty, \$1.

Lobsters not to be taken less than 10 1-2 inches in length, and not to be taken in July, bearing eggs. Penalty, \$5-\$100.

Nets not to be used in Ponds, under penalty of forfeiting apparatus, and \$20-\$50.

GAME—WHEN NOT TO BE KILLED.

Partridge or Ruffed Grouse, between Dec. 1st and Sept. 1st. Penalty, \$20.

Woodcock, between Dec. 1st and Sept. 1st. Penalty, \$20.

Quail, between Jan. 1st and Oct. 15th. Penalty, \$20. Duck of all kinds, between April 15th and Sept. 1st. Penalty, \$20.

Plover, Snipe and Rail, marsh, beach and shore birds, between May 1st and July 15th. Penalty, \$10.

Grey Squirrels, Hares and Rabbits, between March 1st and Sept. 1st. Penalty, \$10.

Deer are not to be killed at any time. Penalty, \$100. Insectivorous and song birds are not to be killed at any time. Penalty, \$10.

Trapping, snaring and setting snares, and ferreting of birds and animals above mentioned, prohibited at all times. Penalty, \$20.

Possession of the above mentioned fish, animals and birds, during their close seasons, is punishable by fine or imprisonment.

New Publications.

Bird Notes from Little Gull Island, N. Y., by Basil Hicks Dutcher, and bird notes from Long Island, N. Y., by William Dutcher. (From the *Auk*, Vol. VI, No. 2, April, 1889.) Being notes of special interest, separates have been printed which can be obtained from the publisher, L. S. Foster, 35 Pine St., New York.

With the April issue the *West American Scientist* passed into the hands of Messrs. Samuel Carson & Company, 208 Post St., San Francisco, Cal. Editorial management unchanged.

Massachusetts Ploughman, official organ of the N. E. Agricultural Society, weekly, \$2.00 per annum, 45 Milk St., Boston, is a journal that is practical and entertaining.

The Loon, monthly, size $5\frac{1}{2} \times 7\frac{1}{2}$, 8 pp., 50 cents per annum, published by Thad Surber, White Sulphur Springs, W. Va. It has for its emblem one of H. A. Carhart's celebrated cuts of a Loon in the act of uttering a war-whoop.

Oölogists' Exchange has been transferred by Dickinson & Durkee to Arthur E. Pettitt, P.O. box 2060, New York. We congratulate the former publishers on their statement that it has been a FINANCIAL SUCCESS. May they live long to enjoy the fruits of their labor. We wish it continued success.

Transactions of the New York Academy of Sciences. Vol. VIII, Nos. 1, 2, 3, 4. Edited by Daniel Strobel Martin.

W. H. Foote's publication, July number, is nearly ready for press.

Correspondence.

Editor O. & O.:

April O. & O. at hand this morning. Allow me to have another word concerning crows in a cornfield, and I will speak of my own experience. I was born on a farm and am now living on one, and have lived in the country all my life with the exception of nine years. Shortly after I began the study of ornithology in a proper manner (1874) I became convinced that crows were of far more benefit than injury to the farmer. I still hold that opinion. Mr. Tennant does not state in his last article whether the crows he dissected were adults or young ones. I cannot say that the adult crows

take the soft kernel of corn for themselves, but I do know that they take it to their nests as food for their young. We have had more or less corn pulled every year and it is safe to say that the soft kernels are taken from nine hills out of every ten that are pulled. I have often seen crows working on a cornfield, and on going over the field have found scarcely any corn pulled, but have found the soil disturbed about the hill, where, undoubtedly, the crows had picked out a ent worm. I have a method of dealing with crows that I think is better than strychnine or the "shotgun act." It is this: If I have time in the spring I mark all the new crows' nests in close proximity to the field intended for corn. As late as possible, but before the eggs are hatched, I overturn the nests. By so doing the annual crop of crows is not shortened but given a setback. Before the second clutch of eggs is hatched the corn is large enough so that they will not pull it up but will take all the cut worms they can find, just the same. Most respectfully,

D. D. Stone.

Editor O. & O.:

Dear Sir: I drop you a line to let you know how I am getting along. I have been down here in the valley of Bolaños for three weeks and the three previous weeks I collected along the mountain range of the Sierra Madre, 8,000 above the sea, where it was so cold nights that water sometimes froze and we were cold under two blankets. It is an extremely interesting country and heavily timbered with pine and oak, and abounds in deer, wild hog and turkey, and a few bear, and full of birds, warblers, woodpeckers, jays, and trogons of many species. Down below in the valley the climate is tropical and all tropical fruits flourish, and the birds are entirely different from those above, although, for instance, we find the *Trogon mexicanus* upon the cold pine country while below we have the Copper-tailed Trogon. Many nice and rare finches are found in the valleys and along the slopes leading upward.

So far have collected 600 birds in five weeks. Shall start to-morrow for further on down towards the Pacific coast, where I hope to be by May 1st. Shall then return northward along the mountains. Have felt no return of the fever as yet and snakes are rare here, so I expect if I have to come home this time it will be for some other cause. Will write you again before long. Yours truly,

Wm. B. Richardson.

Zacatecas, Mar. 17, 1889.

Editor O. & O.:

While camped on the Cour D'Alaine River (Idaho) myself and companions were wakened one night about midnight by the drumming of a Ruffed Grouse (*Bonasa umbellus, var Sabinei*), near our tent. It was then about 1 A.M., and the bird continued its drumming till daylight. Is this not rather uncommon? Could you inform me through your paper where I could get an Adirondack Pack Basket, and if they are adapted for collecting? Yours respectfully,

Bernard J. Bretherton.

A New Sub-Species.

Born far too late to build up a fame,
By chance to discover a bird, without name;
Had he lived in the days that have passed,
He might with the ornithological great have been
classified.

Many long hours he had spent of his life,
In the study of all those things that are rife
With what in the eyes of the world take rank,
As the make up, in general, of a naturalist crank.

His room, it was stocked with book upon book,
While birds' skins and eggs filled every nook;
The other surroundings, desk, carpet and lamp,
Betokened a purse held by poverty's clamp.

Of his form, and his features,
We will not comment:
Simply one of God's creatures,
At any event.

Like many of us, with GREAT (or small) head,
This lover of nature did work for his bread;
All through the day long, he toiled in the town,
And turned to his study, when the sun had gone down.

Let us follow him home, at the close of a day,
And if there's a lesson, we'll give it away;
'Tis a duty we owe to both old and young,
If there's anything up, to OUT with the FUN.

Arrived at his home, he throws off his cloak,
Lights the lamp, pokes the fire, fills his pipe for a smoke;
Sits down at the desk, and puffs with his might,
While he lays out a programme of work for the night.

Yes, he'd open the box that came by the mail,
(From the way it was smashed, seemed struck by a gale),
It contained a small bird, sent in a jest,
From a chum, who was travelling, far in the west.

"Dear Jack, we are thinking of you once again,
There's nothing else doing, because of the rain:
The sport we've had with gun, spear and arrow
Is beyond all description, Joe sends you a sparrow."

Yes, sent him a sparrow, an off-handed token
Of many a joke, on him played and spoken.
Ah, well, they were friends, and if this sly shot
Afforded them pleasure, no matter; " 'twas his lot."

He lazily reached and drew the mass to him,
Carefully straightened and cut off the string:
Unfolded each wrapper, first, second and third,
Then came to his view a little mussed bird.

It surely did look as if shot in the rain,
So he thought as he smoothed it, again and again;
But what has come o'er him; why does he start?
Why that flash from his eye? He speaks, hark, hark!

"My heavens, what means this what can it be?
Am I right? Am I wrong? My senses will flee,
Too much overwork, how oft was I warned,
And now in an instant, too late it has dawned.

"Am I all broken up? Oh sad, such a fate,
Is all to be lost, for which I've worked late?
Must I bid a farewell to all chances of fame?
No, no; I will struggle my balance to gain.

"I will not give up, for life I will fight,
Oh MERCY, extend to my poor brain more light;
Is it failure of eyesight, or diseased brain that made
When I looked at that sparrow, see a peculiar dark shade?"

"On shades, colors and blindness, I had my tuition,
Run I'm not drinking (I vote prohibition),
But sure I can scarcely believe that I view
A bird not included in the last A. O. U. *"

He arose from his seat, and the floor he did walk,
Pale, haggard and nervous, he continued to talk;
And one would have thought, from his actions so queer,
Like some other "Prohibits" he'd been taking Bock Beer.

He turned to his bookcase—next to the door—
And volume on volume piled up on the floor,
Then to the cabinet his footsteps were bent
And a bushel of sparrows from their places were ront.

As again at his desk his seat he did take,
He looked like a martyr just tied to a stake,
The way things were mixed in that room's internal
Would fully eclipse old Dante's infernal.

He studied, and measured, looked and compared,
Made notes of how much the tail feathers flared,
Counted each spot on covert and crown,
And smiled when he noticed the toe nails turned down.

Made sketches and chart of each downy quill,
Wrote sixteen full pages describing the bill,
He found that the wings could open and shut!
And that it possessed heart, liver and gut!!

But the closing note was the glorious claim,
And gave him the right to stick on his name,
"He found that the bird when compared with the rest
WAS JUST ONE SHADE DARKER, ON THE EDGE OF THE
BREAST."

When next we did meet him, three weeks to a day,
You scarcely would know him, so changed was his way;
A sense of his GREATNESS, his wisdom and skill,
His manner, his action, his life seemed to fill.

Now that his name is known wide and far,
He'll hereafter smoke naught but a ten-cent cigar;
And at the next meeting (the hints are not few)
There are prospects of election as an "H" A. O. U.!

Kind reader, we call to your careful attention
This wonderful growth of a modern invention.
Lord knows where we'll end if this craze increases,
Such a trotting out yearly of created SUB-SPECIES.

XX.

* New check list of the A. O. U. just issued, furnished by the publisher of the O. & O. at 50 cents.

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—AND—

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No. 6.

Easter Hawks' Eggs.

The semi-religious customs of many lands agree in the observance of Easter as "Egg Sunday," so it was in accordance with the traditions of the day that on April 21, 1889, I broke the record here and took thirty-one eggs of our big *Buteos*, leaving two sets of incubated *borealis* and two sets of nest-washed *lineatus*.

Though there had been but little ice and no snow, and it had been what is called an open winter, neither owls nor hawks bred a day earlier, for this same ground was gone over April 22, 1888, with about the same result. To do this feat again in 1890, in this oldest settled part of New England, one must have a good horse, a fearless climber, and a thorough knowledge of the country side. He must know the shortest cross-roads from patch to patch of woodland, and his acquaintance with localities must include exact information as to the position of last year's nest and the nest of the year before, for, mind you, in nidification, mistress *Buteo* always has two strings to her bow. To be sure, three wholly new nests were found in unusual sites, but they held no eggs as yet, and I should judge were from hawks driven from their own homes by the portable steam saw-mill which, continuing its murderous work of last year, had levelled their particular groves.

Another rule for the successful collector is not to do any random climbing, and to leave incubated and nest-stained eggs unless for special reasons. A set of Barred Owls', three weeks incubated, and an incomplete set of *lineatus* were taken to save the old birds from ambushed farmers.

While hurrying to one of my surest "finds," you may guess how the elasticity left my feet on meeting a farmer's boy dragging home one of my great *Buteos*, which he had shot on her eggs. It would not matter so much if only the males were shot, the local race would be

still kept up, but if the pair, or the female, be killed, thenceforward that section would be without *Raptoreas*, as we shall soon show.

The first set of three Red Shouldered Hawks, from Hewitt's Woods, Preston, were in a nest twenty rods from the old tree, and the eggs, in shape and markings, duplicates of last year's clutch of four. The old nest is well preserved, and it is dollars to cents it will be occupied next season. Being comparatively a young hawk, she now lays trios and fours.

The next set was from an old *lineatus* that now lays but two. An expert after these base falcons would have known there was one breeding near, without seeing the nest, for every bush within twelve rods of the eyrie held a patch of down from the denuded breast of the sitting female. The present nest was, in a direct line, next tree to last year's home, which will in turn, as we shall see, become the 1890 abode. The Hell Gate set proved to be, in design and coloring, a continuation of a long series.

The Spicer Ledges *borealis* which, April 22, 1888, gave the green runt recorded by Mr. Norris in O. & O. for April, 1889, had a pair of eggs, normal in size, but preserving the rare tint, in an example of the paper-shell type. This aged female, escaping traps and cold lead in a miraenous way, has bred here continuously since 1875, according to my data, alternating between two trees in the heart of the woods 40 rods apart. She has for that length of time given abundant evidence of being the self-same hawk, and local tradition has it that one of these two old leaning chestnuts on the ledges for thirty years has held a Redtail's nest.

Under one nest, from which we flushed a *lineatus*, was a black snake's skin with the flesh freshly picked off. This and the two following incidents give a ray of light on the food of the *Rapaciea*.

A Barred Owl's nest was lined with feathers

of Blue Jays, which the owl had eaten while covering her eggs; the tips and butts of the quills were dovetailed with some approach to art, being by far the best example of nidification I ever met with in this species.

We saw four crows worrying a Barred Owl which was carrying some sort of quarry. The crows shied off as we drew near, and the owl pitched into a thick red cedar. After flushing her, a fragment of old nest well feathered decoyed me up the savin, only to find a Robin which the owl had dropped.

We surprised three crows rifling an early clutch of Ruffed Grouse; two crows carried away an egg in their bills—or rather, impaled on their bills—and two broken eggs were left in the nest.

A Marsh Hawk dropped down into a large meadow, and, though we apparently quartered every yard of ground, we could not flush her. A long rope to be gradually loosed in increasing circles must be used to locate this harrier.

Cooper's were found to be very bold on this trip. One perched on a low chestnut limb overhanging the road, and was so intently watching some guinea chicks that we could almost touch his finely marked breast with our whip as we drove under him. Another we saw "feeling" with his talons in a hole in a barn-yard wall after some escaping quarry. From still a third farm-house, where we put up our team, the farmer went that morning to borrow a neighbor's gun to shoot a pair of Cooper's that had been making forays. He left behind him two hens with ten chickens each, and returned to find that a fox had just killed one hen and nine chicks, and the single orphan chick had fled to the other hen who was now brooding eleven chickens. We were shown the dead hen from which Reynard had eaten the head, legs and part of the breast, while the chickens were bolted outright.

Without particularizing all our "finds," I will repeat that the eggs were in the usual haunts, in old nests, and from the same old birds. But I have been asked, "How do I know this?" What proof have I that no new migrating hawks come in, and that these are the self-same *Buteos* harried before? True, there are no silver collars on the necks of my *borealis*, and no metal tags marked "J. M. W." on the legs of my *lineatus*! But they are recognized by the series of eggs from year to year, presenting individual markings and peculiarities in size, shape, and color; by individual nesting habits (such as the Love Lane *lineatus* always lining her nest with hemlock),

by differences in voice, and rarely by the markings on the hawks themselves.

I hope to show it in another way, and by convincing data. If your cat catches the mother Pheebe which has nested on your porch for four years, no nest is built there afterwards. If you shoot the pair of Prairie Warblers which have bred three years in the hazel thicket in your hillside pasture, there comes no new pair to take the situation. This rule holds truer with our less abundant *Raptoreas*. May 25, 1876, John Young and I shot a pair of breeding *lineatus* in the swamp back of Laurel Hill, and though it is a secluded site, and every way favorable for a *Buteo*'s home, no new hawk has nested there since. Young and I, two successive seasons, March 16, 1879, March 30, 1880, shot males from a pair of Barred Owls at Sunnyside, without breaking up the home, but in April, 1883, a taxidermist shot the female, and, though six years have gone, no owl has ever laid in this well hidden and suitable hole.

John Young shot one of my Cooper's on her nest back of Spalding's Dam, Norwich, May 6, 1880, and no new *Accipiter* has yet come into the woods which are yet standing and unfrequented. In three directions in our suburbs, Messrs. Brand, Eley, and Richards shot female Broad-winged Hawks breeding, and now none are nesting near town. The records of fifteen years multiply instances like these among my Red-tails and Harriers. When I began collecting, in 1875, there were six pairs of Sharp-shinned Hawks dwelling in the pine and hemlock groves surrounding the city; but they were easy to shoot, and now I have none of these tiny *Accipiters* to visit annually with my old Raptorial friends and acquaintances.

I conclude by saying it is true we did not hear the Easter anthem of jabbering sparrows in the city, but we heard the morning trio of Purple Finch, Meadow Lark, and Vesper Sparrow. True, we did not walk up the carpeted aisle of any church, but a morning shower had so dampened the carpet of forest leaves that we could, in every instance, walk unheard near enough to flush our sitting *Buteos*, thus making assurance doubly sure. And if we did not see the gaudy but unknown exotic birds on a hundred new Easter bonnets, our way was gladdened by the vivid azure of many Bluebirds in nuptial garb. Of owls and hawks, we ran across eight varieties, and many individuals; saw a string of eighty-three geese flying low and honking grandly, and noted two Dusky Duck, two Teal, two Woodcock, seven Grouse, and

young gray squirrels with unopened eyes. More than this we crossed a stream on a felled tree, from the hollow of which had been chopped out honey-bees and comb, and in Lantern Hill Woods I saw go into a hole in a huge chestnut, which we marked for future reference, a Wood Drake, with plumage as gorgeous as the Impeyan Pheasant on the Easter hat of your church-going belle.

As if to accentuate the close of this memorable Egg Sunday, so crowded with incident, when we drove into town, a company of several hundred Swifts, circling around St. Patrick's church, seemed to say, "Please record our 1889 arrival on Easter Eve," and also kindly note that the operations of nature go on unerringly whether we go to church or go a-hawking.

J. M. W.

Norwich, Conn.

Nesting of the Swallow-tailed Kite in Texas.

On the twenty-fifth of April, 1888, my friend, Mr. Thomas S. Gillin, and myself, with two guides, started on an extended wagon trip through the central and southern counties of Texas, which we finished on the fifteenth of May, having traveled over four hundred miles, and through some of the worst country and hottest weather I ever experienced.

On April 26th, as we were riding through a post-oak belt, we saw our first Swallow-tails. First we saw an immense flock of Mississippi Kites coming down towards us from the northward before what afterwards turned out to be a heavy shower. Back of them, and in the middle of the rain, came the Swallow-tails (*Elanoides forficatus*) flying low over the tops of the trees. They had the motions of the Night Hawk (*Chordeiles popetue*), and although we were in plain sight and had shot several Mississippi Kites (*Ictinia subcaerulea*), they did not appear to notice us in the least. The Swallow-tails seemed to follow a certain direction, darting down now and then to pick a lizard off a tree, which they did with the greatest ease and dexterity; but the Mississippi Kites seemed unsettled, and drifted back and forth from north to south, or east to west, just as the wind blew.

From this we judged that the Swallow-tails were returning to their nests and mates from an expedition after food, and thought that if we were to follow the general direction they took we might find them breeding.

We went on for about ten miles and came to

a river lined on either side with immense cottonwood trees. Here we saw several Kites sailing, darting and skimming along close to the surface of the water. As I looked I thought them the most graceful creatures I had ever seen. From a great height they would dart down like lightening to within, it seemed to me, an inch of the water, and then, turning over on one side, glide along like a shadow for a short distance, then up again in a beautiful curve, to repeat the same performance.

In their upward flight, I saw them several times pick lizards from off the branches of trees, with the utmost ease and without pausing for an instant. When two met in the air, which they often did, they compared notes in their loud peculiar voice—a sort of a twittering scream.

The beautiful river flowing swiftly along between its high banks; the magnificent trees, festooned with Spanish moss; the brilliant flowers; the solitude; and these lovely birds, in their graceful gyrations; all combined to make a perfect picture. How I wished for an instantaneous camera!

We stood for a long time taking in the scene, not wishing to spoil it. But as it was getting on in the afternoon we began to look around for the nests. Further down the river we at length found several, all situated in the very tops of the highest cottonwoods. They were very hard to find, for they were built so high, and so very cleverly concealed, that when you did spy one, it looked more like a bunch of moss than a nest.

With the aid of our field glass, we at length saw a bird sitting on one, and my friend Mr. Gillin determined to climb to it. It can be imagined what he had before him when I say that the tree was six feet in diameter at the base, the first branch was eighty feet from the ground, and the nest over one hundred and twenty-five feet up, on a branch about as thick as a man's arm. But Mr. Gillin is an indefatigable climber, and had a good pair of irons, and, after a great deal of hard work, reached the nest to be rewarded with two beautiful fresh eggs. The bird waited till he was within a few feet of her before she left the nest. This set of eggs measures 2.05 x 1.48, 2.00 x 1.51, and are marked as follows: First egg has a white ground color, tinged with a very faint shadow of yellow; the smaller end heavily marked with large irregular blotches of chestnut or dark brown. The other egg is marked heavier at the larger end with same colored

spots as egg No. 1, and the smaller end is covered with very small specks of reddish-brown; ground color is the same as the other egg.

The nest I brought home with me, and I describe it as it lies before me: It is about one foot wide by two feet long, and four inches deep (or high), perfectly flat on top, with just the least depression in the middle to hold the eggs. Composed of a harsh green moss with a little Spanish moss among it, and with a mass of small twigs mixed in among the moss. These twigs must have the moss growing on them, for I saw several Kites carrying twigs with moss hanging from them, during our trip. The nest is just a platform, and what keeps the eggs from rolling out during the high wind, when the bird is not on, I cannot see. All the other nests we saw were of the same description, with the exception of one, which was composed wholly of Spanish moss. As the trees were all covered with this moss it was very hard indeed to see the nests.

When the parent bird left the nest she circled around the tree uttering plaintive cries, which soon brought all her relations and friends to see what was the matter. They began to scream also, and showed a disposition to attack Mr. Gillin. I picked out two of the prettiest and brought them to the ground with a load of No. 4, but even then they were so high up that I only wounded them very slightly.

I had often heard that this Kite when wounded offered no resistance, but when I went to pick up my first bird it was the most savage thing I ever saw. It did not wait for me, but came to meet me with a rush, and I had to skip around right smart to get hold of it and not let it get hold of me. The second bird was just the same.

We did not try any more trees that day, for we thought from the signs that the other nests were either old or not yet finished, so we found a good place and went into camp.

The next day we went on down the river, and about two miles from our camp of the day before, went into camp again, as we saw several Kites flying around among the tops of the Cottonwoods. Here, after a day's tramp through mud about three feet deep, and like unto wax, we located a nest and succeeded in getting another set of eggs. Mr. Gillin as usual climbed the tree to the nest, which was even higher than the one he had climbed to before.

We saw several other nests, but as each tree took an hour or more to get up and down, and required the outlay of an immense

amount of strength and skill, it was only those nests which we were certain had either eggs or young in them that were attempted.

On April 28th, still along this same river, we saw a Kite sitting on her nest in a Cottonwood. The nest was built out on a very small limb which we afterwards found to be over two hundred feet from the ground. And there were no limbs for over a hundred feet up. At first we decided not to try it, but it seemed too bad to go away and leave it, so we made a try, and Mr. Gillin at last succeeded in reaching the nest to find only one egg, just laid. This was the most beautiful egg we had seen so far, and is as follows: Measures 2.00 x 1.44, ground color is a yellowish-white; around the smaller end blotched with large spots of reddish-umber, rich and beautiful, and around the larger end the spots are small and irregular, and lighter in color.

At nine o'clock in the morning, May 4th, just as we were crossing a small creek only three or four yards wide, one of our party spied a Kite's nest, which we thought was a new one on account of the fresh green moss hanging from it. We immediately went into camp, and then drew a bee-line for the Cottonwoods.

The first nest we came to was nearer the ground than any we had found. It could not have been more than fifty feet up. One of our guides climbed to this one and found two beautiful eggs, the Kites meanwhile flying around and darting at him as they did at the first nest we found. These two eggs resembled very much the second set we had collected, excepting that the brown spots were richer and larger. The next nest we discovered, although not more than ninety feet up, was the hardest of all to get at. The tree it was on was a cottonwood very thick at the base, and when Mr. Gillin put the spurs of his climbing-irons into it it crumbled away like so much gingerbread. He could not get any hold at all, so he climbed a smaller tree that stood within about twenty feet of the one that contained the nest, and when he reached the top, forty-five feet from the ground, throwing a rope over a limb of the big tree, he drew it taut and fastened it, and then climbed over on the rope till he was able to reach the first branch. Even then he had a hard climb, which the intense heat made worse, but at last succeeded in reaching the nest which contained three eggs.

They were about one-half incubated, and were a very beautifully marked set.

This was the last set of Swallow-tailed

Kites' eggs we collected. Although we saw a great many more birds before we left the State, we never found any more nests.

At Key West, Florida, in the month of June, we saw two Kites sailing over the town. This was the last glimpse we had of this beautiful bird.

G. B. Benners.

Philadelphia.

Nesting of the Prairie Warbler in Fairfax Co., Va.

The northeastern part of Virginia, where I spent the season of 1884, two weeks in 1887, and three weeks in 1888, may well be termed the home of the Prairie Warbler (*Dendroica discolor*). I believe this species cannot be found in greater abundance, during the breeding season, in any other part of the country.

The place where the following notes were taken is in Centreville Township, Fairfax County, about twenty-five miles west of Washington, D. C.

The country just at this point is hilly, and each of the numerous hollows and ravines has its "branch," which flows either into the Popeshead or into Bull Run; the latter stream drains that part of the county. The land seems to be of little value; fields not under cultivation are, in a few years, covered with a dense growth of worthless pines. In other places, where the hard wood has been cut off, but which have not been grubbed over, a thick deciduous growth of sprouts, suckers and vines springs up. The Prairie Warbler is found equally as plentiful among the second growth as in the pines, but it is much easier to find the nests among the latter. In the scrub an oak, maple or alder sprout is usually selected, and when the birds start building, the leaves are small and do not conceal the stem and branches; at this time the nest is not difficult to find. But the foliage grows rapidly, and often by the time the eggs are laid the spreading leaves so completely cover and conceal the nest that one must part them to see it.

My acquaintance with this warbler began May 13, 1884, when, as I was passing through a large tract of second growth, a bird left its nest almost at my side. Finding the contents were four eggs, I moved back a short distance, and on the return of the bird a few moments later its identity was established.

This nest was in the most peculiar position of any found since; a small dead branch had

in some way lodged in the top of an oak sprout, three feet from the ground; two prongs on one end of it were in an upright position, and between these the birds had built their nest. To take it I had only to lift the dead branch from its position.

Within an hour after the discovery of the first nest two more were found, and during the following week the number was increased to eleven, from nine of which sets of eggs were taken.

In 1887, I returned to the locality, mainly for the purpose of collecting a series of these eggs, and was successful beyond my greatest expectations.

From my arrival, on May 13th, to the 26th, I was in the field almost constantly while there was daylight; the result, twenty-four nests with eggs, was gratifying. Six nests were found the first day, and during the balance of my stay twenty-nine more were discovered; all were new; but eleven, for unknown reasons, were deserted after their completion.

When I visited the place again last season (1888), I intended to pay but little attention to this species, but to look up other rarer ones known to breed there. However, meeting with such poor success, I was tempted continually into the old fields and scrubby places, where the Prairie Warbler could be found, and the number of nests of this species discovered exceeded that of the previous year. Between May 9th and 30th, thirty-nine new nests were found, of which twenty-two yielded sets of eggs. The Crows, Blue Jays, and black snakes were probably to blame for the absence of eggs in many of the other nests. That this species usually builds a second nest when their first is destroyed, I am quite satisfied. Near the end of May, nests were noticed in different stages of erection close to the sites of others that had been taken from ten days to two weeks earlier. It pleased me to note this fact, as it assured me that no serious harm had been done to the birds by taking their first nest.

The record of the height of eighty-three nests shows that the highest was seven feet, the lowest two feet and the average four feet. Of this number forty-two were on pines or cedars (very few on cedars), the remainder being placed on deciduous trees, bushes or vines.

When the birds select a pine they seldom place the nest on a branch, but generally attach it to the stem, resting its base on one or more twigs growing out horizontally or at an

upward angle from the stem, and usually build it near the top of the tree.

Five days is the time required to build the nest, and generally the first egg is deposited on the sixth day. A nest found on May 9th, last season, must have been begun on the previous day as there was only a small portion of the base in position. On the 11th it was almost complete; two days later it was ready for occupancy but was still empty. The first egg was laid on the 14th, and on the 17th the full complement of four had been deposited. These were taken the following day.

I made it a rule not to disturb the nest until the day after the last egg was laid, where it was possible to do so, and in this way insured the completeness of the set. As but few of the nests were at a greater distance than a mile from the farm-house where I stopped, they were visited almost every day from their discovery to the time when they were taken, and by this means all the eggs obtained were, with few exceptions, quite fresh and easily prepared for the cabinet.

Four is the usual number of eggs in a set, though five does not seem to be an unusual number some seasons. Three of the sets taken in 1884 were composed of five and one of three; in 1887 and 1888 one set of five and three sets of three each were taken each season. The nests from which the sets of three were obtained were at too great a distance from my stopping place to be left for a second examination, and were taken at the time of their discovery; with the exception of one set all of these were fresh. It is probable that some of these were incomplete. A few of the birds may have deposited their full clutches by May 12th, but the height of the breeding season is from the 18th to the 22d, when more complete sets of fresh eggs are found than at any earlier or later date. I have seen the young, just from the nest, on June 4th.

It is more profitable for the collector to look only for the nests when following this species, and I soon learned that more nests could be found by this mode of procedure than by watching the birds. Only three or four of the number I found were discovered by noting the actions of the birds.

The actions of the female when it returns, after the nest has been taken, cannot but affect the heart of the most unfeeling. Fluttering from branch to branch it approaches and gets as close as possible to the site of the nest. Failing to see its home it seems to conclude that it is suffering from an optical delusion, so

it flies directly into the space where the nest should be, and hovers there, turning its head from side to side, apparently bewildered. All the while it utters only a single note at short intervals. An uncomfortable feeling of shame at having robbed the helpless little creature would never allow me to remain long enough to see when the bird became convinced that the nest had actually disappeared.

If taken when fresh the eggs are of a delicate pink color before being blown, as is usual with small eggs having a white shell. This generally fades to a dead white when the contents are removed, though sometimes a shade of cream color remains. In a few sets a faint shade of green is noticeable.

The markings are too varied for me to attempt to describe them; while some sets are finely dotted about the larger ends others are spotted and blotched over their whole surface.

The nests are trim little structures, deeply cupped, and their brims are invariably contracted more or less. So deep are they that when the bird is sitting only the tips of its bill and tail extend above the brim. The composition is of soft, fibrous, vegetable substances, usually lined with hair; often the lining is wholly of fine grasses, and sometimes a quantity of hair moss is found in it.

This species and the Cardinal, Yellow-breasted Chat, Towhee, Ovenbird, and Field Sparrow seem to be the most abundant of the birds in that locality throughout the breeding season.

Harry K. Jamison.

Manayunk, Phila.

Early Nesting of the Prairie Horned Lark in Illinois.

The Prairie form of Horned Lark (*Otocoris alpestris praticola*) is a bird of tolerably common occurrence throughout the greater part of this State. It frequents the rolling prairie lands and high pastures of short grass, which are well suited for its habits, and here breeds in profusion, and quietly carries on its domestic duties unnoticed by man in the fickle temperature of our early spring. It is a bird of remarkable courage and its habits are interesting to study. Its song is very impressive and pleasing to hear when the bird has mounted high up in the air looking almost like a speck, the clear tinkling accents are brought to me, now distinct, now scarcely heard, then suddenly its wings close and it shoots downward with increasing velocity, alighting near my

feet. From this remarkable habit of soaring to a great height it is locally known as the skylark, and is correctly so termed. Many of my most pleasant days afield have been spent with these birds from early morning till sunset on a chilly March day with the air full of their music.

On March 28th of the past spring, I discovered my first three nests with eggs of this species; all were full sets, but none of the eggs were incubated. If the weather is unfavorable with slight snowfall the bird does not incubate her eggs immediately, as to ascertain this I have left a full set eight days, at the end of which time on blowing I have found them to be perfectly fresh. The full set is usually four, more often three than five. These vary considerably in markings, but are usually thickly covered with greenish or gray spots and specks, somewhat after the pattern of some Shrikes' eggs I have seen.

Last to describe but not least interesting is its nest, which although simple in its construction shows skill and good judgment on the part of its builder to a marked degree. It is sunken beneath the surface of the ground with thick walls of fine dry grass, and is artfully concealed by its natural appearance, and well protected in every way from the weather. It is always placed on the south slope of a hill, and often further protected from the northern winds by some small knoll or projecting piece of earth. An inexperienced person might walk within a few feet of the nest and not be able to find it, so closely does it resemble the ground about it, and the eggs also are nearly the color of the latter. On the whole its nest is not an easy one to find, as the watchfulness and misleading actions of the birds upon any one's approach help to protect it.

A second, and I believe a third brood, is raised later in the season. *Otho C. Poling.*

Quincy, Ill.

Nesting of the Prairie Horned Lark in Vermont.

Upon looking up the records on the subject I have not been able to find any authentic record of any of the Shore Larks breeding within the New England States, and therefore the following notes on the nesting of the Prairie Horned Lark (*Otocoris alpestris praticola*) will be of interest.

It occurs in this section from September through the winter until July, with the exception of December and January.

The birds arrive about the middle of September, and become generally dispersed by the twentieth of that month, and are common during October and a greater part of November, when they depart. They reappear again about the middle of February, and become common by the last of that month, when they remain in greater or less abundance during March. The bulk of them migrate in March, leaving a few pairs here and there which doubtless all might be taken in the act of breeding.

From its occurring during this part of the year I have long thought to place it on the list of the birds which breed in this locality, but I have not until recently been able to do so from a positively identified nest.

Two of these have come to my notice, one found early in April, 1885 (I can not give the exact date of either), contained three young birds and one egg. Unfortunately the parent bird was not taken with the nest, but as it was collected by an ornithological friend who is familiar with the species, there can be no doubt as to its identity. The other was also taken early in April and contained four eggs. I have examined one of these eggs and it is unquestionably that of a Shore Lark.

I can also note one instance (April 6, 1888) of an immature egg taken from the ♀ which must have been deposited in a short time.

The nest which removes all uncertainty in regard to the breeding of this species in this locality, however, I collected April 19, 1889. While passing through a meadow, I flushed an old bird, which tried in every way possible to decoy me away. Upon looking around I discovered the nest, which I took with the ♀ bird. The nest was situated on grass land, on slightly sloping ground. It was a loose structure, like most ground nesters, and was sunk in the ground to the rim. It was composed of coarse grass lined with the same and contained four eggs slightly incubated.

I think the Shore Lark will yet be found to be not a rare breeder in this locality.

C. H. Parkhill.

Cornwall, Vermont.

[At my request Mr. Parkhill sent the ♀ bird which he took to Mr. William Brewster for identification, and Mr. Parkhill writes me that Mr. Brewster pronounces it to be a typical specimen of the Prairie Horned Lark (*Otocoris alpestris praticola*), and, furthermore, that it is the first recorded instance of the breeding of any form of *Otocoris* in New England.—*J.P.N.*]

The Purple Grackle and the Robin Laying in the Same Nest.

On May 12, 1888, I took a set of four eggs from what I supposed to be a Purple Grackle's nest, but upon examining the eggs I found two of them to be Robin's (*Merula migratoria*), and two Grackle's. I had frequently seen the Robins and Grackles fighting, and knew the former had a nest in the tree, but thought it was in another part.

In other years they have both nested together in the same tree, but I never before knew the Grackles to altogether displace the Robins. The nest, which, unfortunately, I did not save, was in a large pine tree close to our house. It looked as if it had been built by Robins and then completed by the Grackles to suit their taste. The bottom was made of mud, which Grackles do not use, while the top was made of twigs and roots which Robins do not use. Another thing which would indicate that the Grackles drove the Robins away was the fact that the Robin's eggs were considerably incubated, while the Grackles' were nearly fresh. With all their well-known mischievousness, I have never before heard of the Grackles being accused of usurping other birds' nests.

F. L. Homer.

New Hamburg, Penn.

Early Nesting of the Woodcock.

On March 30, 1889, a friend of mine found a nest of the American Woodcock (*Philohela minor*), containing four eggs. The nest, which was a mere depression on the top of a small moss-covered mound, measuring about five inches in breadth by one in depth, was situated in a thicket of briars and bushes on the south side of a piece of woods near a small stream of water. He discovered the nest while engaged in cutting bushes, and had cut them all from off the mound on which the nest was made, his scythe passing directly over the sitting bird's head two or three times in the operation. It was not until the bushes fell across her back that she moved at all, and then it was only to go a foot or two from the nest. The eggs were of the usual color, but were a little larger than the average. They measured as follows in hundredths of an inch: 1.57 x 1.22, 1.55 x 1.23, 1.57 x 1.19, and 1.53 x 1.18.

G. L. II.

Bethel, Conn.

Curious Set of Eggs of *Parula americana*.

I have lately received a set of five eggs of the Blue Yellow-backed Warbler (*Parula americana*), which are in some respects the most remarkable of any of this species that I have ever seen.

They were taken near Taunton, Mass., on June 13, 1888, and were sent to me without the nest; the collector not thinking it necessary to take up so much room in the box as it would occupy if packed with the eggs. When the eggs came I doubted their identity, and did not believe that they were the eggs of *Parula americana*. In fact they looked so exactly like some sets of Chickadee (*Pars atricapillus*) in my series of that species that I was inclined to think the collector had made a mistake, and to assign them to that bird. However, I determined to write him for the nest in which he found them, and which he told me he had preserved. It came, and at once settled all doubts as to identity of the eggs. It is a large bulky nest, composed entirely of *usnea*, and attached to a small twig from which it is pendant.

Now as I had a series of thirty-eight sets of eggs of this species in my cabinet before the arrival of this last set, and had studied them very closely, I felt sure of being able to distinguish eggs of *Parula* from all others found in Massachusetts. With all humility I must confess my defeat. This set is a complete puzzle. They are white, without any of the gloss that is characteristic of the eggs of this species, and their shape is different from any of the other thirty-eight sets in the series. They are more rounded at the smaller ends, and they are also very much smaller than usual. The markings are almost wholly confined to the larger ends, but instead of forming an indistinct wreath as is usual, the spots become confluent, and form nearly a solid piece of color. This is cinnamon-rufous, but there are a few specks of lavender-gray—so few, however, as not to be noticeable unless closely looked for. They measure: .56 x .44: .57 x .44; .58 x .46; .59 x .44; .59 x .43.

J. P. N.

Double Set of Cliff Swallow's Eggs.

Being in need of a few sets of Cliff Swallow's eggs (*Petrochelidon lunifrons*) I started with a friend of mine, one evening in the early part of June, 1888, for a colony where I had previously obtained their eggs.

We found the colony much larger than when I last visited it, and most of the sets were fresh and complete. After taking several sets of five and six eggs, I put my hand in a nest which seemed to be literally full of eggs, and I thought at once of the dreams I had had of taking phenomenally large sets of eggs.

The nest was in a difficult position to get at, and the eggs could only be taken out one at a time. I counted them up to eight to myself and that was too much, so I counted out aloud "9, 10, 11," which cleaned out the nest. It had got too dark to examine them, so packing them up carefully we started for home.

Upon examining them we could see at once that they were laid by two birds, as six of the eggs were much larger than the other five, and much more heavily marked, and it was further proved upon attempting to blow them. In the six eggs the incubation was nearly completed, while in the five eggs, two of them were fresh, and in the other three incubation had commenced, showing that this set had been sat upon from the time the first one was laid.

C. E. Hoyle.

W. Millbury, Mass.

Nesting of the American Crossbill.

A short time ago I wrote an article for the O. & O. in reference to the nest and eggs of the White-winged Crossbill (*Loxia leucoptera*). Since then I have been so fortunate as to find the nest and eggs of the American Crossbill (*Loxia curvirostra minor*). I had observed for the past two weeks a male bird frequenting a pine and spruce wood in the neighborhood of our city, and watched him closely, but never having seen a female in the vicinity I had about concluded to abandon the search for the nest.

While sitting on a log on the morning of the 30th of March, however, I observed the male bird on top of a spruce tree busy picking at the cones. After a time he flew directly to a large spruce, and having taken an observation from the top proceeded along a branch into a suspicious looking clump on the end. After remaining a few moments he flew off. There was the nest. The female was on the eggs, and I am under the impression that she seldom, if ever, left it during incubation, and that the male bird carried to her the food he had collected from the spruce cones.

I am led to this conclusion from the fact that the female was never once seen during the two weeks that the male was being watched; and from the persistency with which she re-

fused to leave the nest, although a person ascended the tree, and with a stick endeavored to dislodge the sitting bird, she would not move, but pecked at the stick that touched her. It is possible that this is a wise provision to secure the eggs from the cold, as the temperature the night before was 30° lowest, 46° highest, and ice formed in a pond within fifty yards of the nest to the depth of half an inch; and two days after (the first of April) we had one of the heaviest snow storms of the winter. Should the eggs be left for even a short space of time in such weather they would perish.

Owing to the inaccessible position of the nest I had to leave it for a time, and returned in the afternoon with appliances for securing it. By passing a rope with a hook attached to it over the branch above the nest, and then making fast the hook to the branch on which the nest was built, I was able from the ground to support the end. My son, who had ascended the tree, then, with a saw, cut the branch close to the main trunk, and both ends were then lowered simultaneously. During all this time the female bird retained her position on the eggs, and before the nest had come within reach, owing to the intercession of other branches, I found it impossible to keep the unwieldy branch level, and the eggs would have fallen to the ground had not the parent bird been on the nest. Anticipating some such disaster I took off my overcoat and had it held under the nest, and when the female left the nest one egg dropped out and was caught uninjured in the improvised blanket. The other egg was soon secured, and the nest and branch lowered to the ground. The female bird was secured without much difficulty, and when the male (who was away) returned he also was shot.

I now have the branch containing the nest and eggs, and the parent birds, and they form a most interesting group. On examining the two birds I was confirmed in my impression that the female was fed on the nest by her mate, for while he had a crop full of fine seeds, the female's crop was empty.

The tree on which the nest was found was a large spruce about seventy-five feet high. The nest was on the end of a branch about thirty feet from the ground. A small branch had been partly broken at some time and had turned back on the main branch. It had continued growing, and had formed a snug, well-sheltered clump. In the little bower formed by the secured branch, the Crossbills had built a neat nest of fine grass and moss.

The nest contained two eggs, which were partly incubated, showing that the number was complete—another wise provision for a cold climate, as the bird would have difficulty in covering a larger number.

The eggs (which were a little larger and about the same shape as those of the Common Snowbird, *Junco hyemalis*) were of a greenish tint. One of them is covered with small (almost indistinct) light brown spots, the other with the large end only covered with larger dark brown irregular shaped spots. The eggs were alike in size but very different in marking.

The nest differed from that of the White-winged Crossbill in being deeper and not having any twigs woven in it. There were a few feathers, apparently from the females, about both nests, but not any used in their construction or lining. The nest of the American Crossbill was admirably concealed, but that of the White-winged was easily discovered. There was no mud or clay of any kind about either nest.

Thomas J. Egan.

Halifax, N.S.

Nesting of the White-tailed Kite.

On February 19, 1889, I took a walk into the country near San José to see if the White-tailed Kite (*Elanus leucurus*) had yet arrived from the south.

On approaching near a live-oak where a pair of Kites have for years been accustomed to nest, I was pleased to see one of the beautiful birds flying toward the tree, with what appeared to be a small stick in the claws. It was followed by its mate, and on reaching an oak next to the tree containing the old nest they hovered prettily for a moment, just as a Sparrow Hawk might do, then continued their graceful flight, with many playful evolutions, to a black oak, where they settled quietly side by side.

In a few moments one of the birds flew over to the top of the live-oak and, I suppose, deposited the stick on the old nest. It was soon afterward joined by the other and both birds appeared very unsuspecting, for on the discharge of a rifle near by they only flew off a short distance, uttering their plaintive whistle (which is very much like that of the Western Meadow Lark), and returned to perch once more on the leafless black-oak. Some Chinamen were working and talking not a hundred yards away but the Kites seemed altogether indifferent to their presence, and I might

easily have shot one or both of the birds.

This species of Kite is far from common, and is, I believe, becoming rarer. It is not a matter for wonder that this is so: its conspicuous and pleasing plumage, with its singular trust in the kindness of man, makes it the easy prey of every careless farmer and designing pot-hunter.

The White-tailed Kite is said to be found in numbers in the Santa Clara valley, but from careful observation over much of its area I have found but one pair nesting at any material distance from San José, and I venture to assert that there are not more than four pairs this year breeding within a radius of seven miles of that city.

To determine if this pair were really building so early, I climbed to the nest (not an easy task without irons) and looking into the slight structure, framed in among the topmost branches, I was surprised to see that it had been built up several inches with oak sticks and stubble. I counted on securing their set of eggs, but when I visited the nest again on March 7th, I met with only disappointment. The nest was finished, but contained no eggs, and the Kites were gone. As they were still absent when I returned a few days later I concluded that the birds had been shot or else the eggs taken by some other egg appropriator.

Two days later, on March 9th, I visited another nest, where I took a late set of four eggs in May of last year, and I was fortunate this time. I could see as I came up that the nest had been built up and after throwing several pieces of clods close to it, off fluttered the Kite and flew over to watch me from a neighboring sycamore, while I was not less agitated. The nest was constructed as usual and was about thirty-five feet from the ground in the topmost branches of a live-oak. I was enabled to reach my hand into the nest by standing on tiptoe and resting my left foot on a branch about on a level with my waist. My position was awkward, but what moment more ecstatic than when I rested my finger-tips on four beautiful eggs in the nest.

H. R. Taylor.

College Park, Cal.

Capturing a Great Horned Owl.

On May 4, 1888, while out hunting for English Snipe, I came to a marshy strip of woods which had all the appearance of a good location for snipe. I entered it but had not gone far

when what should I see but a Great Horned Owl sitting on the root of a tree. I had my dog working a little to the left of me and this attracted the owl's attention. Now, I thought, this was a good opportunity of catching it alive, but how to manage it I did not know, but came to the conclusion that I would have to catch it with my hands. So with my gun ready if it should fly, I walked up towards it very quietly, expecting every minute it would hear me, but as luck had it I got within reaching distance and made a grab for it, but instead of getting hold of both legs as I intended, I only got hold of one. I knew now that I either had to hold to it and get a sore hand, or let it go and shoot it. So I held on to it, and before I could catch its other leg, it had me by the back of my hand, sinking its talons deeply into the flesh. I thought of a great many things just then, and you can imagine how I felt till I was released from its awful grip. After working awhile I succeeded in getting its claws loose. I then tied a handkerchief around its legs, and started for home. I got Mr. Owl home safe, but had a sore hand for awhile. I still have the owl alive, and it affords me a great deal of amusement.

C. E. Bixler.

Madisonburg, Ohio.

Pumpkin Rock and its Summer Residents.

It was my good fortune to have the chance of visiting a breeding place of the Wilson and Arctic Tern and Leael's Petrel, during the past summer, and it was July 9, 1888, that I, in company with three friends, rowed a 16-foot dory three or four miles, from an island we were camping on, to Pumpkin, as it is called by the fishermen.

This island is the end of a chain that puts out from the mainland about eight miles into the ocean, and is a number of miles east of the mouth of the Kennebec river on the coast of Maine. The southern and outer end of the island rises rather sharply to a height of at least forty feet above sea level, and is a solid mass of whitish quartz rock, sloping to the north till it ends in low lying reefs that are covered by the water at high tide. It is not over two acres in extent, including sides. Part of the northern slope is covered by a thin turf, with here and there small clumps of the low bushes commonly found on the seashore.

When we first landed, there were but few birds to be seen, but we did not have to go far

before they commenced to rise until the air was literally alive with the terns. They rise up hundreds of feet and then dart down to within a few inches of our heads, swinging around here and there so thick and fast that it is almost impossible to follow one with the eye, and all the time keeping up such a chattering that one can hardly hear himself talk. Their cry is beyond description on paper.

We found their nests in all places imaginable; some on small hammocks with a matting of grass for a nest, others on the bare rocks that feel quite warm to the touch, and they were also in slight depressions amongst the drift stuff and sand, in a small cove where it had been thrown up by the last full tides. There were one, two, and three eggs in a nest, mostly twos, and they were in all stages of incubation, as we found on blowing a few sets. One young one was found which was apparently not over one day old. The identification of the eggs could not be positive without some means of trapping the bird on the nest which we did not have.

We found the burrows of the Leach's Petrel without any difficulty; they were generally near small clumps of bushes and twisted around amongst the roots, often being three or four feet long, though most of the time only just under the sod. We dug out a number, and in each case found the bird and one egg at the end of the burrow where it was hollowed out to a considerable extent. The dirt in these nests was perfectly dry, and in some cases there were a few feathers and small fish bones such as would be left by a sitting bird. The birds would bite some when putting the hand in, which would be the only demonstration they made, with the exception that some of them would squirt from their mouth a half tea-spoonful of oil which had a very rank smell. After letting them go they immediately took off and did not appear again.

The fishermen say the males are never seen near the breeding place. A few days after we had a chance to see where they kept themselves. While sailing several miles out at sea, we ran on to a very large flock of Petrels sitting in the water, only getting up as we came too near. They shifted along a little way and then settled down again; there was only a light breeze and we had a fine chance to watch them. One thing in particular which attracted our attention was seeing them rise up and run on top of the water with closed wings, often as far as five or six feet, something I have never seen any account of. By

cutting up fish liver, we could toll them right alongside of the boat, and we could have caught them in our hands if they had only kept still long enough. We also found on the island quite a large colony of Bank Swallows, which had burrowed under the sod right on top of a ledge, their nest being on the rock with not over three inches of turf over them. The young had all left the nests in all that we examined. I mention this as I think it an unusual nesting site of this swallow. To end up I want to enter a protest against the practice of so-called city sportsmen who go on to such islands as this one and shoot birds until they are tired, break eggs for fun, and dig up the Petrels and wring their necks. The Terns they sometimes take, oftener just the wings, leaving the bodies to rot; evidence of which I saw. The fishermen claim they have driven the Terns off one island, and that they are only as one to ten to what they were ten years ago on this island, since which time some of the larger islands near by have become summer resorts. Such as these are the ones that are doing the most towards exterminating and driving away our birds from their accustomed breeding places; not, as is often made the hue and cry of the daily newspapers, the hunters and taxidermists.

Elmer T. Judd.

Fairfield County, Conn.

A Curious Set of Eggs of the Long-billed Marsh Wren.

While collecting eggs of the Long-billed Marsh Wren (*Telmatodytes palustris*) a few seasons ago, I came across a set which I think is unique.

It consists of four eggs of the usual size and shape of typical Long-billed eggs, the texture of the shell also being the same. The reason I mention this fact is that eggs of the Short-billed species are much more brittle than those of the Long-billed.

The eggs are all pure white; if you hold them up to the light you can discern a few lilac spots on the large ends, which have the appearance of being under the surface of the shell; otherwise they are immaculate.

This set was found in the centre of a colony of Long-bills on a *salt* meadow. The nest was placed in a small bush three feet up, and was composed of the same materials as typical nests of the Long-billed; the female was seen and fully identified.

C. W. Crandall.

Nesting of the Oven-bird.

The Oven-bird (*Seiurus aurocapillus*) is a common summer resident in Chester county, Penn., arriving about the last week in April, and, as a rule, making its home in the denser parts of the woods.

On the twenty-sixth of May, 1888, while tramping through a wood bordering on a creek, I happened to see an unfinished nest on the ground, which attracted my attention. It was on a steep hillside facing the North, and not more than one hundred yards from the road. The nest was then simply a mass of dry chestnut leaves and grass and looked much like an old one.

On June 6th I again visited the nest, which now contained four eggs, including that of a Cowbird. Although I waited probably half an hour in the vicinity of the nest, the birds did not put in their appearance, and I was unable to determine to what bird the eggs belonged. Three days later, June 9th, I again went to look at the nest, which still contained but four eggs, including the Cowbird's. The bird was in the vicinity of the nest when I reached it, and I recognized it as the Golden-crowned Thrush, or Oven-bird. I sat down upon a fallen tree trunk near by to watch it, and soon it began to approach the nest, making a circle around it. Had I not known its location previously, it would not have been a very difficult matter to discover it then.

Upon blowing the eggs, I found that incubation had begun in all of them, thus showing that the bird had ceased laying. The Cowbird's egg seemed to be more fully developed than those of the Oven-bird. The spots on the eggs were a rich lavender and brown, and chiefly in a ring around the larger end. The nest was composed of chestnut leaves, grass, a few stems of the "maiden-hair" fern, and lined with a little horse-hair. It was domed over, and was quite bulky.

Willard L. Maris.

West Chester, Pa.

The Way he Does it.

An easy way of blowing eggs: Take a piece of rubber tube about two feet long, fasten one end to faucet and fix a blow-pipe on the other. Turn on the water very carefully until the right force is obtained, and it will do fine work.

Winsford R. Denton.

Wellesley, Mass.

Curious Nesting Traits of Birds.

On May 16, 1889, as I was passing through my orchard, I observed a Kingbird (*Tyrannus carolinensis*) building her nest, and seating myself under an adjoining tree for a few minutes, to watch her movements, I noticed that while she was gone for more material a Warbling Vireo (*Vireosylcia gilva*) who was also building a nest close by, would dart into the Kingbird's nest and after selecting such tit-bits as she thought she could make use of, would fly directly to her own nest, thus saving her the trouble of finding at least part of the material she needed. It was amusing to note how careful she was to see that the Kingbird was absent from her nest when she made her visits. But twice she was caught in the act of stealing, when the Kingbird gave her a warm reception and close pursuit. I have also observed that when the Blue-gray Gnatcatchers (*Polioptila caerulea*) are building and a storm partly destroys their nest, they will tear down the old structure and rebuild it again in another tree, using the same material for the new nest.

On April 22, 1889, I collected a set of four eggs of the Hairy Woodpecker (*Picus villosus*). They were slightly incubated. I made frequent visits to the tree before collecting the eggs and always found the male bird on the nest. Does the male Hairy Woodpecker hatch their young? I wish some one of more experience would answer this question.

James B. Purdy.

Plymouth, Mich.

Is it the California Bob-white, A.O.U.

289c?

There are quite a number of Bob-whites (*Colinus virginianus*) running wild in the vicinity of Gilroy, California, and last year while I was visiting near there a boy found a nest. You see your eastern birds, like the rest of the easterners, are finding out that California is a good place to live in.

By the way, can't we run these birds into the A. O. U. list as the California Bob-white? They belong to this state now, sure enough, even if they did come out by train. Let me know, and if the scheme's "canonical" why, I'll import a lot of Blue-jays, Ruby-throated Hummers, Chuck-will's widows, etc., turn them all into California birds and wait to see climatic differences.

H. R. Taylor.

College Park, Cal.

Our Halifax Correspondent.

Halifax, N. S., May 30, 1889.

Publisher O. & O.:

I wrote to you about my last fishing trip, eagle nests, etc. The man from Jeddore has since been in, and says he has found two more eagles and if he can manage it will go down next week for the young. After watching the Ruby-crowned Kinglet for over a week building the nest, and just when they had it completed the female disappeared, and I feel badly, the nest is now finished, but the birds gone. I cannot account for it; it is the first I ever discovered. The ♂ kept about for a few days after the ♀ left, and I shot him, and have him set up. I can get the nest but no eggs. I took a Purple Finch with six eggs just by the Kinglet's nest. On the 21st, I went up the line after Ruffed Grouse, found one nest with eight eggs, brought them home, put them under a hen; she ate two eggs; I wrung her neck, and that settled it. I wanted the young to stuff. I am glad you have told everyone that you are coming to Nova Scotia. August will be the best time, then we can get all kinds of Shore birds, also Woodcock, Spruce Grouse, etc.; the shooting don't begin till the 20th; depend upon it you will have plenty of sport.

June 2, 1889.

It "never rains, but it pours," hence, we smile again. After killing the blasted hen, mentioned in my last, (because I suspected on her part "fowl play"), I found the two missing Grouse eggs in the straw, and now have the original set of eight eggs complete.

To-day being the Lord's, and I being a good and faithful follower of his (nature's) works, I started off to secure the Ruby-crowned Kinglet nest. After cutting down the branch from which the nest was suspended, I let my eagle eyes roam around, when, lo and behold, I spotted a pair of Golden-crowned Kinglets flitting about on a black spruce, about fifteen yards distant. I got down my tree in a lively manner, and was in time to see one of the Kinglets fly into another black spruce, and as she did not come out, I flitted up; consequence was I started her off the nest. It was way out on end of the branch, *underneath* (same as the Ruby-crowned), so I had to crawl out and fill the nest up with wool, then I crawled me back, cut off the branch, and with careful work landed with the whole business safe on the ground. The old hen still flitting about,

I thought it best to gather her in, so putting a few shot in my catapult (if you know what that is), I brought her down. When I came to examine the nest, I found that it contained nine eggs, seven of them white marked with brown, and two pure white. While I write this I have both nests before me, and I wish to remark that they are not built on a branch, as described in Cones' key, but they are suspended to the small little branches on twigs, that shoot out from the main branch, and are fully three to eight inches underneath the main branch; the bottoms of the nests are not fastened, nor do they touch a branch, but the nests are fastened by the sides with moss to the small branches; both are alike and both were built on black spruce trees, about 18 feet from the ground. The nests, outside, are made with moss, such as grows on the ground, and that hangs to the trees, and the insides are nicely lined with feathers. You will see them when you come on, and that I am correct in statement made. I am sorry now that the Ruby-crowned changed her mind about laying her eggs, after my spending several days, watching her build the nest, as I might have had the two kinds, but I hope to get one yet.

Harry Austen.

Notes after Taps.

In looking over my notes I find that on the night of May 5, 1887, while running my outline, I heard a Spotted Sandpiper call, and after I answered he called again. I also heard a Song Sparrow. It was then about ten o'clock, an hour or so after I heard a Robin sing. Were these birds out serenading, or were they talking in their sleep? I often hear Chipper Sparrows and Phœbes at midnight and after. Let us hear from others on the subject.

A CURIOUS ORIOLE'S NEST.

I inclose a photograph of a Baltimore Oriole's nest now in my collection. It was found in a maple tree about thirty feet from the ground. It is what might be called two nests on one twig. The lower nest was used last year, and the upper one the year before. My opinion is that the male slept in the upper nest while the female tended the eggs below, as you see the lower nests partly fastened to the upper one. Did you ever hear of or see a nest like this before? Let others give their opinions.

Alden Loring.

Oswego, N. Y.

[The photograph shows two nests linked together. The lower one has the regular ap-

pearance, and seems well preserved, while the other, placed above at one side, does not appear as deep as is usual. The position would certainly give the impression that the birds were attracted by the old nest.—*Ed.*

Occurrence of Yellow-legs and Pectoral Sandpiper in the Spring, at Cape Cod, Mass.

On date of April 29, 1889, I shot three specimens of the Yellow-legs on a marsh at Monomoy Island, Cape Cod. They were in company with one Greater Yellow-legs and a large Sandpiper that I was unable to identify. The day following, while gunning near the point of the island, which is about six miles from the marshes, I saw three other small Yellow-legs in company with six Greater, feeding about a small pond. Although I could not get near enough to shoot one, I could easily identify the small Yellow-legs as they flew past me several times. Although one of our most abundant waders in the summer and autumn, it is exceedingly rare in the spring, and I have never before seen one on Cape Cod at this season. Many of our oldest and most experienced collectors say that they have never taken or seen a specimen along the Cape coast in the spring.

April 30th, I shot a Pectoral Sandpiper, which I flushed from a marsh. This bird is also of rare occurrence in the spring, and I have one other instance of its being taken on the Cape at this season. Two were shot at Monomoy Island in April, 1888, an account of which was published in the O. & O., under the heading of "Probable Wintering of the Pectoral Sandpiper, at Monomoy Island, Mass."

John C. Cahoon.

Occurrence of the Vermilion Flycatcher at Riverside, San Bernardino Co., Cal.

I wish to record the capture of a full plumaged ♂ Vermilion Flycatcher (*P. rubineus mexicanus*), shot by myself on May 24, 1889. As its habitat is Southern Arizona, and the valleys of the Colorado and Rio Grande, the occurrence of it in this locality will be of interest.

Theo. L. Hurd.

Notice.

I caution all parties doing business with me to make all remittances payable to my order.

While using utmost care I am unable to prevent the continual loss of copies of the O. & O. in the mail. It is mailed the last of each month to all. Parties who find that they have not received a number will have a duplicate mailed them upon application.

FRANK B. WEBSTER.

Brief Notes.

N. Vickary informs us that a nest with three eggs of the Golden-crowned Kinglet was taken last month at Lynn, Mass. It was found in a spruce tree. He says that the outside is covered with green moss and of beautiful construction. This is the only instance that has come under his observation.

From reports that come to us, the Springfield member of the Fish and Game Commissioners still continues far from being popular with our ornithologists. It is a "curious" fact that the favored dozen to whom HE has gratuitously granted permits do very little collecting, while those to whom the privilege (?) is denied as well as those who don't care to submit to his nonsensical catechism it is surmised are unusually active. Ornithologists would like to see him scalped, in the same manner as he expressed a desire to handle taxidermists.

We have had the extreme pleasure of glancing over the last report of the Massachusetts Fish and Game Commissioners. The glowing accounts of the flights of silver eels and suckers, and the capture of baby lobsters are unusually thrilling. One unfortunate seems to have committed the heinous crime of having three or four caged birds for sale. "What depravity!"

Why the people of the state should allow public funds to be wasted by such a foolish expenditure as the printing of such a mess can only be accounted for by a lack of attention.

Arthur Pettit, who recently took control of the *Oologists Exchange*, has opened his editorials in a very vigorous manner. He has placed a very good sized chip on his shoulder.

Looking at the June issues of the *Loon* and the *Cerulew* we are reminded of the early issues of the O. & O. (Oologist). All such publications have our best wishes and we hope that our ornithologists will give them support.

H. Austen took a Blackburnian Warbler at Halifax, N.S., in May.

The cloth-covered edition of Cones' Key is exhausted, only the Sportmen's edition (flexible) can now be had from the publishers, and there is no prospect of another edition being out for some time.

Four of the boys at the Thompson Island Institution, while at play May 30, discovered a Turkey Buzzard on a small spruce tree. They succeeded in knocking it over with stones and then captured it. The bird, which proved to be a ♀, was sent to us by W. W. Hill. Thompson's Island is situated in Boston Harbor, less than two miles from the city wharves. The bird was as fragrant as the average.

We have had in the our hands a Sabines Gull taken at Cape Cod, Mass., in 1888. The bird was in immature plumage.

M. Bixler's article reminds us of an instance when called to attend to an owl that a party wished preserved. We were piloted to a large attic room and found ourselves let loose in pretty much the same manner as the owl had been, *i.e.*, shoved in and the door slammed after us. To add to the dilemma the owl appeared to be an unusual lively one and there was nothing to use with which to secure it. The owl blinked at us and we winked in return. In desperation we loosened a round from a rickety chair and prepared for action. A grand waltz was had around the enemy and never did we see a more perfect swivel action than that owl's head. Finally, after many whacks and thrusts a lucky tap at the seat of wisdom laid it low. Steaming with perspiration we picked it up by the feet and started for home. On our way, passing through the centre of the city, an object of much attention, the utmost possible indifference was assumed; but alack, swinging the owl in one hand and making our politest salute to a lady friend with the other—such a Masonic grip as we experienced has never been equalled since Solomon was king. To drop on one's knees and have a rough and tumble in the streets of a city would not do; there was but one alternative, to grin and bear it. And such a grin—we can feel the inspiration as we write. Well, we sailed along and the way we hugged that mass of flapping feathers was not exceeded in any of the round dances at the late Centennial Ball. Arriving at a convenient turning-in place, with the assistance of a friend, the deadlock was broken, and the half-completed job was finished. The moral to this was, be sure your owl is dead before you carry him by the feet.

A son of Erin, "so they say," connected with the navy, being tired of land service, wished for a change. He was summoned before a board of examination and his ability tested. Among the questions put were: Suppose you were sailing in a gale at a high rate in the China Sea and one of your men should fall overboard. What would you do? He looked thoughtfully for a moment and replied: "Sure, I would retire to me cabin and write to his folks that he was drowned."

It was a cousin of his, that remarked about a turtle that he had decapitated, and which continued to crawl: "He's did, but begorra, he don't realize it."

During the past two years there has been an inclination to substitute the use of naphthaline, and various similar products, for camphor, to prevent the ravages of moths and dermestes. We have found Cryst Alba to be very efficacious.

E. B. Webster, in his treatise on the embalming process, states: In warm weather all large birds should be skinned as far as possible, and flesh removed, also that the process is not generally applied to birds larger than a pigeon. If it is necessary and best to do away with the flesh of a grouse, why not with that of a pigeon? We do not believe that it is an advantage in any case, large or small, to have the cabinet filled with mummified birds. Also, we do not see that there can be any practical gain in time by the process. We have two grouse preserved by an embalming process, we think in the manner described by Mr. Webster, some six years since. The birds have become distorted by shrinkage. We would be cautious about adopting the process, but do think there might be an advantage in using an embalming fluid in preserving birds temporarily while on collecting trips, for future use.

Our pet "mouser" brought us the remains of a Robin one day last week. If a bird alights in our yard

it is a goner. At night a party gathers regularly on our lawn and howls in derision at the songbird protection laws. There are no flies on Tabby.

We have seen some very fine drawings of birds, the handiwork of A. H. Verrill, New Haven, Conn. Mr. Verrill is engaged in making them, to be used in illustrating ornithology in the forthcoming edition of Webster's Dictionary. It will be a valuable addition to that work. Mr. Verrill displays an unusual amount of talent and should carefully cultivate it.

The O. & O., semi-annual. From the advance sheets that we have just received of the July number it is evident that its proprietor is determined to do his best to make it a success.

Under date of May 10th, a letter from William Smith, Santarem, states that he has been very ill.

On May 19th, during a severe storm with southwest gales, Decatur Morgan, of New Haven, Conn., captured a ♀ Chucks-will's Widow, that had taken refuge in a carpenter's shop. It lived a few days, and was presented to the Peabody Museum of Yale College. A. H. Verrill.

Important!

The Department of the Interior, Census office, Washington, D.C., has issued a call, asking that all members of the various medical professions assist in furnishing statistics. We regret that our limited space prevents us printing the notice in full, but we earnestly request that all who are able to assist, apply for physicians' registers, now ready. It is a work that the whole country is interested in.

The Audubon Ornithological Club.

The Audubon Ornithological Club was formed for the purpose of progressing the study of ornithology in the Mississippi Valley.

Semi-monthly meetings are held and original papers are read. (Notes and copies of the more interesting ones will be sent to O. & O. We respectfully solicit correspondence from all interested in the subject. The following are the officers: President, J. M. Howard; secretary, A. M. Cox; curator, Albert Hager; librarian, C. A. Jones. Any information can be obtained from the secretary.

J. M. Howard.

284 Marshfield Ave., Chicago, Ill.

New Publications.

The Preservative Method of Taxidermy. E. B. Webster, Cresco, Iowa. A treatise on the embalming process with full directions.

Illustrated Catalogue of Lathes and Various Machinists' Tools. Brown & Sharpe, Manufacturing Co., Providence, R. I. They are well known as manufacturers of the finest line of goods.

Notes on the Birds of the Magdalen Islands, by Dr. Louis B. Bishop, reprint from *The Auk*, Vol. VI, No. 2. This is a list compiled from notes taken by the writer and Mr. Robbins, summer of 1887.

Teachers' Outlook. May, Vol. I, No. 1. A magazine devoted to general literature, science, health, industrial and national affairs. Edited by W. G. Todd. Published by Teachers' Publishing Co., Des Moines, Iowa.

Correspondence.

Editor O. & O.:

While blowing a set of eggs of the Black-billed Cuckoo, to-day, that were partially incubated, I noticed the albumen or "white" part of the eggs was of a grass green color, and if my memory serves me rightly a set I obtained and blew last year was the same.

I would like to ask the readers of the O. & O. if they have ever noticed a similar thing and if they who are posted can inform me if the contents of the Black-billed Cuckoo's egg is always grass green, whether incubated or not, and can the eggs of this species always be distinguished by this character even though the parent bird might not have been seen, and the outwardly appearance of the eggs looks anything but normal? For if such is the case then this point should be generally known, for it becomes a most important factor, at least in the identification of the Black-billed Cuckoo's eggs.

Shelley W. Deuton.

Wellesley, Mass., June 4, 1889.

Editor O. & O.:

I have a geography published in 1804. Under the head of "New England" I find the following: "What birds are found in New England?" "A variety of hawks, crows, owls of several kinds, eagles, pigeons, partridges, turkeys, heath-hens, woodcocks, quails, wild geese, brant, different kinds of wild ducks, cranes, lapwings, martins, three kinds of swallows, robins, blackbirds, bluebirds, woodpeckers, snipes, mourning doves, and many more kinds which fill the woods and orchards with music; particularly the mocking-bird, thrush, cat-bird, and the bob-of-lincoln."

By the way, when are we going to have that series of papers in the O. & O. on "The Botany of Birds' Nests"? Two and a half years ago it was promised. Respectfully,

D. D. Stone.

Oswego, N. Y.

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—AND—

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BOSTON, MASS., JULY, 1889.

No. 7.

Birds of Chester County, Penn.

Most of the observations upon which the following list is based were made in the vicinity of Ercildoun, in the western part of the county, although frequent excursions were made into different parts during the past four years.

In preparing this list I am specially indebted to Mr. Wm. D. Doan, of Coatesville, who has given me free access to his valuable collections; and for assistance rendered in the identifications of the rarer species. In nomenclature and classification the A. O. U. Code and Check List of N. A. Birds has been followed.

1. *Colymbus holbællii* (Reinh.). Holbæll's Grebe. Transient visitant; rare.

2. *Colymbus auritus* (Linn.). Horned Grebe. Transient visitant; rare. This species and *C. holbællii* I have never met with in this county. Wm. D. Doan has several specimens of both species that he has collected in the county, and C. J. Pennock gives them in his "Birds of Chester County," of 1887.

3. *Podilymbus podiceps* (Linn.). Pied-billed Grebe. Transient visitant; common. Arrives first week in April, and again as early as August 25.

4. *Urinator imber* (Gunn.). Loon. Accidental visitant. Have never observed them here except in the month of November.

5. *Sterna hirundo* (Linn.). Common Tern. Accidental visitant. Mr. Doan took one in the spring of 1885, on the Brandywine, near Downingtown.

6. *Hydrochelidon nigra surinamensis* (Gmel.). Black Tern. Accidental visitant; rare.

7. *Merganser americanus* (Cass.). American Merganser. Transient visitant; common. Arrives first week in April, and again by the second week in October.

8. *Merganser serrator* (Linn.). Red-breasted Merganser. Transient visitant; rare.

9. *Lophodytes cucullatus* (Linn.). Hooded Merganser. Transient visitant; rare.

10. *Anas boschas* (Linn.). Mallard Duck. Transient visitant; tolerably common.

11. *Anas obscura* (Gmel.). Black Duck. Transient visitant; tolerably common. Arrives first week in April; reappears second week in September. I have taken them as late as November 15.

12. *Anas penelope* (Linn.). Widgeon. Transient vistant; rare. I took one of this species April 10, 1884.

13. *Anas carolinensis* (Gmel.). Green-winged Teal. Transient visitant; tolerably common. Arrives generally by the last week in March, and again by the second week in September; occasionally met with until November 20, which is the latest I have observed them.

14. *Anas discors* (Linn.). Blue-winged Teal. Transient visitant; rare. Have taken only two specimens, one on September 10, 1884, and the other September 18, 1886. Mr. Doan took a fine specimen in April, 1886, on the Octoraro Creek, near Atglen; and I think this is the only record of this species being taken in the county during the vernal migration.

15. *Spatula clypeata* (Linn.). Shoveller. Transient visitant; rare. Have taken but one specimen.

16. *Dafila acuta* (Linn.). Pintail. Transient visitant; tolerably common. Arrives third week in March, and again the first week in October.

17. *Aix sponsa* (Linn.). Wood Duck. Transient visitant; common. Arrives second week in March and may be frequently met with for two weeks, reappearing the last week in September.

18. *Aythya americana* (Eyt.). Redhead. Transient visitant; tolerably common. Arrives last week in March, and the second week in October.

19. *Aythya marila nearctica* (Stejn.). American Seaup Duck. Transient visitant; rare.
20. *Aythya affinis* (Eyt.). Lesser Seaup Duck. Transient visitant; tolerably common. Arrives first week in April and again by the 20th of October.
21. *Glaucionetta clangula americana* (Bonap.). American Golden-eye. Transient visitant; tolerably common. Arrives second week in April, and again by the 20th of October.
22. *Charitonetta albeola* (Linn.). Buffle-head. Transient visitant; common. Appearing the first week in April, and leaves by the 10th of the month; reappears second week in October, and is met with until the last week in November.
23. *Erismatura rubida* (Wils.). Ruddy Duck. Transient visitant; tolerably common. Arrives first week in April, and again by the second week in October.
24. *Branta canadensis* (Linn.). Canada Goose. Transient visitant; common. Reaches here by the second week in March, and returns in the southern migrations by the second week in October.
25. *Olor columbianus* (Ord.). Whistling Swan. Accidental visitant. Have never observed this species. Mr. Doan secured two fine male birds out of a flock of eight, on February 23, 1885.
26. *Botaurus lentiginosus* (Montag.). American Bittern. Summer resident; tolerably common. This species appears by 15th of April, and sometimes remains as late as December 20.
27. *Ardea herodias* (Linn.). Great Blue Heron. Summer resident; tolerably common. More common in spring and fall. Breeds in pairs along the Octoraro Creek. Arrives first week in April; departs by the first week in October.
28. *Ardea egretta* (Gmel.). Great White Egret. Accidental visitant. Mr. Doan has one in his collection that was taken near Oxford, this county, by Mr. Frank Cline of Lancaster City, May 20, 1883.
29. *Ardea candidissima* (Gmel.). Snowy Heron. Accidental visitant. I took one May 16, 1886, on the banks of the Brandywine, below Downingtown.
30. *Ardea virescens* (Linn.). Green Heron. Summer resident; common. Arrives first week in May. Nidification commences by the 25th of that month; eggs, five to six. Departs second week in October.
31. *Nycticorax nycticorax naevius* (Bodd.). Black-crowned Night Heron. Summer resident; rare. Common during spring and fall migrations. Arrives by the first week in May, and have taken it as late as November 1.
32. *Rallus virginianus* (Linn.). Virginia Rail. Summer resident; rare; tolerably common during migrations. C. J. Pennock gives it as breeding near Kennett Square, in 1878 and 1883. Mr. Doan secured a set of eggs on June 6, 1885, in a swamp near the Octoraro Creek. I have seen this species here during the breeding season, but have never yet taken their eggs.
33. *Porzana carolina* (Linn.). Sora. Transient visitant; tolerably common. Arrives first week in April, and again by the last week in September.
34. *Gallinula galeata* (Licht.). Florida Gallinule. Transient visitant; rare. While in company with Mr. Doan collecting on May 18, 1888, in the meadows below Downingtown, he took a fine male which was the first one I have observed that has been taken in the county.
35. *Fulica americana* (Gmel.). American Coot. Transient visitant; rare. Have only observed two during a period of four years.
36. *Philohela minor* (Gmel.). American Woodcock. Summer resident; tolerably common. Arrives second week in March. Nidification commences by April 20; its nest is usually placed in a tussock, and composed of leaves and grass; eggs, four. Departs first week in December.
37. *Gallinago delicata* (Ord.). Wilson's Snipe. Transient visitant; common. Arrives by March 20, and lingers until the second week in April, reappearing last week in August, and may be met with as late as September 20.
38. *Tringa minutilla* (Vieill.). Least Sandpiper. Transient visitant; tolerably common. Arrives first week in April, and again by September 1, and by the 5th of that month they depart.
39. *Totanus melanoleucus* (Gmel.). Greater Yellow-legs. Transient visitant; tolerably common. Arrives first week in May, and again second week in September; and I have taken them as late as October 1.
40. *Totanus flavipes* (Gmel.). Yellow-legs. Transient visitant; rare. Have never taken this species. Mr. Doan has taken it during the spring along the Brandywine, and on one or two occasions have found it in the same locality during September.
41. *Totanus solitarius* (Wils.). Solitary Sandpiper. Transient visitant; tolerably common. Arrives second week in April.
42. *Bartramia longicauda* (Bechst.). Bartramian Sandpiper. Summer resident; common. Arrives second week in April. Nidifi-

cates in fields by the last of May; eggs, four. Departs by the last week in September.

43. *Actitis macularia* (Linn.). Spotted Sandpiper. Summer resident; abundant. Arrives last week in April; eggs to the number of four are usually laid by the first week in June. Departs last week in September.

44. *Egialitis vocifera* (Linn.). Killdeer. Summer resident; common. Arrives second week in March; eggs, four in number, are laid by the second week in May; two broods are generally reared each season. Departs by the 15th of November.

45. *Colinus virginianus* (Linn.). Bob-white. Resident; tolerably common. Nidifies in old fence rows; eggs, eight to twenty.

46. *Bonasa umbellus* (Linn.). Ruffed Grouse. Resident; tolerably common. Nidification commences generally by the first week in May; the nest is placed on the ground in dense undergrowth, at the base of a bush, sometimes among the limbs of a fallen tree, and is composed of leaves and fine grass. Eggs, eight to twelve.

47. *Ectopistes migratorius* (Linn.). Passenger Pigeon. Accidental visitant; rare. Mr. Doan took one in June, 1888, near Coatesville. He has several specimens that were taken by him during the fall of 1882, along the Octoraro.

48. *Zenaidura macroura* (Linn.). Mourning Dove. Summer resident; common. Arrives first week in April. Nidification takes place by the first week in May; eggs, two. Departs by the last week in October.

49. *Cathartes aura* (Linn.). Turkey Vulture. Resident; abundant. Nidification commences by the last week in March; eggs, two.

50. *Circus hudsonius* (Linn.). Marsh Hawk. Transient visitant; common. Arrives first week in April, and again by the second week in September.

51. *Accipiter velox* (Wils.). Sharp-shinned Hawk. Resident; common. Nidification takes place by the second week in April; eggs, four to five.

52. *Accipiter cooperi* (Bonap.). Cooper's Hawk. Resident; common. More plentiful in summer than at other seasons. Nidification commences by the last week in April; eggs, four to five.

53. *Accipiter atricapillus* (Wils.). American Goshawk. Winter visitant; rare.

54. *Buteo borealis* (Gmel.). Red-tailed Hawk. Resident; common. Nidification begins the second week in March; eggs, two to four.

55. *Buteo lineatus* (Gmel.). Red-shouldered

Hawk. Resident; tolerably common. Nidification in medium sized trees, in low woodland, and usually takes place by the second week in April. Eggs, three to four.

56. *Buteo latissimus* (Wils.). Broad-winged Hawk. Resident; tolerably common. Nidifies by the second week in April.

57. *Archibuteo lagopus sancti-johannis* (Gmel.). American Rough-legged Hawk. Winter visitant; rare. I have never seen this species in this country; Mr. Doan has taken several during the winter months.

58. *Aquila chrysaetos* (Linn.). Golden Eagle. Accidental visitant; very rare. Mr. Doan secured a fine male on the western borders of the county, April 15, 1883; which is the only record that has come under my observation of its being taken in this county.

59. *Haliaetus leucocephalus* (Linn.). Bald Eagle. Accidental visitant; rare. Appears in spring and fall. I have never observed it here during the summer and winter months.

60. *Falco columbarius* (Linn.). Pigeon Hawk. Winter visitant; rare. Have met with it occasionally from November 1 until the middle of April.

61. *Falco sparverius* (Linn.). Sparrow Hawk. Resident; common. Eggs, four to five, are usually laid in a hole in some dead limb, by the second week in May. Have known them to rear two broods some seasons.

62. *Pandion haliaetus carolinensis* (Gmel.). Osprey. Transient visitant; common. Arrives first week in April, again by the 15th of October.

63. *Strix pratincola* (Bonap.). Barn Owl. Resident; rare. George Kinzer and Wm. D. Doan each found this species breeding in this county, along the Octoraro Creek. Both nests were in a hollow of a willow tree (*Salix babylonica*), one contained five eggs, collected March 15, 1882; the other six eggs, and was collected March 28, 1884.

64. *Asio wilsonianus* (Less.). Long-eared Owl. Resident; tolerably common. Have never taken its eggs but once, April 15, 1885, found nest with four eggs.

65. *Syrnium nebulosum* (Forst.). Barred Owl. Resident; tolerably common. Nidification commences by the last week in March; eggs, three to four.

66. *Megascops asio* (Linn.). Screech Owl. Resident; common. Nidification takes place by the middle of April; eggs, four to six.

67. *Bubo virginianus* (Gmel.). Great Horned Owl. Resident; tolerably common. Nidification commences by the first week in March.

Have never taken more than two eggs to a set.

68. *Nyctea nyctea* (Linn.). Snowy Owl. Winter visitant; rare.

69. *Surnia ulula caparoch* (Müll.). Hawk Owl. Winter visitant; rare. Occasionally specimens have been taken during severe winters. Mr. Doan has several fine specimens which he has taken in the county, during the months of December and January.

70. *Coccyzus americanus* (Linn.). Yellow-billed Cuckoo. Summer resident; common. Arrives second week in May. Nidificates by June 15; eggs, three to five. Departs by first week in October.

71. *Coccyzus erythrophthalmus* (Wils.). Black-billed Cuckoo. Summer resident; common. Its arrival and departure similar to *C. americanus*.

72. *Ceryle alcyon* (Linn.). Belted Kingfisher. Summer resident; common. Arrives sometimes as early as March 21. Nidification commences by the first week in May; eggs, five to seven. Departs by the second week in November.

73. *Dryobates villosus* (Linn.). Hairy Wood-pecker. Resident; common. They commence to excavate a hole in an old tree by the second week in April. Eggs, four to five.

74. *Dryobates pubescens* (Linn.). Downy Wood-pecker. Resident; common. Nidification similar to *D. villosus*; eggs, four to five.

75. *Sphyrapicus varius* (Linn.). Yellow-bellied Sapsucker. Transient visitant; rare. Arrives last week in March; frequents heavy timber. I have never observed this species here later than December 15.

76. *Melanerpes erythrocephalus* (Linn.). Red-headed Wood-pecker. Summer resident; tolerably common. Arrives first week in May. Eggs, to the number of four to six, are usually laid by the second week in June. Departs by October 10.

77. *Colaptes auratus* (Linn.). Flicker. Summer resident; abundant. Arrives last week in March. Have seen them excavating holes for their nest by April 25. Eggs, five to seven; sometimes two broods are reared each season. Departs first week in November.

78. *Colaptes cafer*. (Gmel.). Red-shafted Flicker. Accidental visitant. Mr. Doan took a fine female of this species on May 17, 1888, near Coatesville, this county, and I believe it is the first record of its being taken this far east.

79. *Antrostomus vociferus* (Wils.). Whippoor-will. Summer resident; tolerably common. Arrives first week in May. Eggs, two

in number, are generally laid by the last week in that month. Departs the third week in September.

80. *Chordeiles virginianus* (Gmel.). Night-hawk. Summer resident; common. Arrives second week in May. Eggs, two, are laid by the first week in June. I have found the eggs of this species placed upon the loose soil, thrown up by the *Arctomys monax* (Wood-chuck). Departs the last week in September.

81. *Chaetura pelasgica* (Linn.). Chimney Swift. Summer resident; abundant. Arrives by the 20th of April. Nidification commences by the second week in May; eggs, four to five. Departs by the 25th of September.

82. *Trochilus columbris* (Linn.). Ruby-throated Hummingbird. Summer resident; common. Arrives first week in May. Begins laying by the first week in June; eggs, two. Departs first week in October.

83. *Tyrannus tyrannus* (Linn.). Kingbird. Summer resident; common. Arrives first week in May. Nidification takes place by the last week in that month; eggs, four. Departs first week in October.

84. *Myiarchus crinitus* (Linn.). Crested Flycatcher. Summer resident; common. Arrives first week in May. Nidificates by the 25th of that month. I have known them to rear two broods in a season. Eggs, four to six. Departs the second week in September.

85. *Sayornis phoebe* (Linn.). Phœbe. Summer resident; common. Arrives second week in March. Nidification commences as early as the 15th of April; eggs, four to six. Departs second week in November.

86. *Contopus borealis* (Swains.). Olive-sided Flycatcher. Transient visitant; rare. The only specimen that has come under my observations was taken in an old orchard, near Atglen, May 20, 1886, by Mr. Doan.

87. *Contopus virens* (Linn.). Wood Pewee. Summer resident; common. Arrives second week in May. Nidification commences by June 15th; eggs, three to four. Departs first week in October.

88. *Eupidonax flaviventris* (Baird.). Yellow-bellied Flycatcher. Summer resident; rare. More plentiful during migrations. Arrives second week in May, and frequents low woods where it delights to nidificate. I found on June 15, 1887, nest and three eggs of this species, which was placed among the roots of an upturned tree. Mr. Doan also found a nest containing four eggs, in the vicinity of Steeleville, that was placed on the ground at the side of a large tussock, close by a small pool

of stagnant water. It was hidden almost from view by the large grass that hung down from the top of tussock. Departs first week in October.

89. *Empidonax acadicus* (Gmel.). Acadian Flycatcher. Summer resident; tolerably common. Arrives first week in May; frequents dense woods, and is very shy. Nidification commences by the last of May; eggs, three. Departs second week in October.

90. *Empidonax minimus* (Baird.). Least Flycatcher. Transient visitant; tolerably common. A few remains to breed; arrives first week in May. Eggs, three to four. Departs first week in September.

91. *Cyanocitta cristata* (Linn.). Blue Jay. Resident; common. More plentiful during the summer. Nidification commences the second week in May; eggs, three to five.

92. *Corvus americanus* (Aud.). Crow. Resident; abundant. Nidification commences by the first week in April; two broods are reared each season. Eggs, four to six.

93. *Corvus ossifragus* (Wils.). Fish Crow. Resident; tolerably common. Nidifies by the second week in May; eggs, four to five.

94. *Dolichonyx oryzivorus* (Linn.). Bobolink. Transient visitant; common. Arrives second week in May; and remains for eight or ten days, reappearing by the 20th of August, and may be met with occasionally until the second week in September.

95. *Molothrus ater* (Bodd.). Cowbird. Summer resident; common. Arrives last week in March, and departs by first week in October. Have found its eggs within the nests of the following species: Chipping Sparrow, Song Sparrow, Towhee, Indigo Bunting, Red-eyed Vireo, Warbling Vireo, White-eyed Vireo, Yellow Warbler, Golden-crowned Thrush, Red-start, Brown Thrasher and Wood Thrush.

96. *Xanthocephalus xanthocephalus* (Bonap.). Yellow-headed Blackbird. Accidental visitant; rare. I have never observed this species. Mr. Doan has three specimens in his collection that he took in this county, two males and one female; they were taken May 3, 1880, and September 15, 1885.

97. *Agelaius phoeniceus* (Linn.). Red-winged Blackbird. Summer resident; abundant. Arrives second week in March. Nidification commences last week in April; two broods are reared each season. Eggs, four to five. Departs not later than the 25th of September.

98. *Sturnella magna* (Linn.). Meadow Lark. Resident; abundant. Nidifies by the sec-

ond week in May; two broods each season. Eggs, four to five.

99. *Icterus spurius* (Linn.). Orchard Oriole. Summer resident; common. Arrives first week in May. Nidification takes place by the last of that month; eggs, four to six. Departs by the third week in September.

100. *Icterus galbula* (Linn.). Baltimore Oriole. Summer resident; common. Arrives sometimes as early as the 25th of April; generally not until first week in May. Nidifies by the last week of the same month; eggs, four to five. Departs second week in September.

(To be continued.)

Cyrus B. Ressel.

Ercildoun, Pa.

Wanderings, No. 4.

THE OÖLOGIST TURNED BUG-HUNTER.

The season of the ornithological collector, in Massachusetts, is short, unless he is willing to run the risk of being mulched in a good solid fine, or put "in limbo" for a term, for violating the Game Laws. And so, in order that we may gain needful recreation, and enjoy our much loved pastime of collecting objects of Natural History, we find refuge in the, to many, puerile avocation of a bug-hunter, which cognomen, by the way, like charity, covers a multitude of sins.

So one day, snow two feet deep, cloudy, cold, raw, signs of more snow, etc., we don our toques and leggings, strap our snow-shoes to our backs, and, with the implements of our puny warfare at hand, start for the woods to hunt the festive beetle.

We imagine our readers saying, "What in the mischief are they going bug-hunting for in a snow-storm!" But be it known that there is not an hour, day or night, during the entire year, when the entomologist need to rest for want of specimens to collect.

My companion, and at that time partner, was a short, stocky Canadian from Ontario, full of life, and enthusiastic in this his favorite study,—a true type of that hardy people to whom the use of the snow-shoe and moccasin is a second nature.

We took train for the old Malden woods, and after alighting and leaving the houses behind, strap up, and are soon skimming over the frozen surface, making for a grove of pines which loom up in the distance.

The everpresent "hoodlum" shouts at us as we pass a cross-road, "Oh, luk at the gillies

with them things on their feet, don't they go fine, though? Say, Mister, give us a ride?" But although they might, no doubt, prove fruitful fields to collect from, it is not that kind of bug we are after, and we go on to more congenial fields.

The first dead pine is attacked, and our hatchets soon start the bark from the trunk, and eager eyes are watching for the little creatures as they lie in their cosy nests, hollowed out of the inner bark, the surface of which is furrowed by the hundreds of little beetles which infest these trees.

Our first find is a fine specimen of the Ribbed Bark-beetle (*Rhagium lineatum*). It is from one-half to three-quarters of an inch in length, of a yellowish-gray color, variegated with black. The head and thorax are much narrower than the body, and the antennae barely reach the base of the elytra. They lie in cosy little cells, between the inner bark and the wood, in which they transform from the larval state, and from which they bore out in the spring to lay their eggs in the crevices of the bark, again to commence the round of destruction. A large number are often found in one tree, and an entry in my Field Notes reads, "April 2, Malden, Mass. Cold and stormy. Over 100 *R. lineatum* were found in one dead white pine, and twice that number of larvae."

The next find is *Pyro americanus*, a beautiful little beetle, blue above and red beneath, which lives in a similar cell to the last mentioned, excepting that the rim of the cell lacks the chips which invariably characterize the former.

Well do I remember the first time I found this beetle. It was in the woods near my old home in Braintree, Mass., and I was assiduously working away at a dead tree, when a strange beetle dropped from under a strip of bark which I was peeling off, and its bright colors caught my eye as it fell. Down I went on my knees in the snow and dirt to find it before it became buried in the debris. I believe I took fifteen out of that tree, and got logs and piled them up to reach higher.

Another tree discloses a specimen of the rare *Alaus myops*, a somewhat larger beetle, gray, with two eye-like black spots on the top of the thorax. This insect belongs to the family of *Elaters*, or spring beetles, and is closely related to the Cuejo or fire-fly of the tropics.

But by this time our toes have become numbed by the straps of our snow-shoes, which have borne too tightly over them, pro-

tected only by a thin moecasin, and my friend challenges me to a race to the next grove on a hill about one-quarter of a mile distant, to warm ourselves up, and decide who shall pay for the supper when we get back.

Away we go, skimming along, until a low wall, on a steep side hill, unnoticed in the excitement of the race, catches the toe of my friend's shoe, and over he goes, head first, into the drift beyond, all out of sight but his short legs, looking like barbers' poles, with their striped stockings and waving snow-shoes, decorated with gay ribbons from the last costume skating carnival.

As soon as I can recover from my fit of laughter at his mishap, I roll him over, like a big mud-turtle, upon his back, and as he arises and blows the snow from his bushy moustache, he says, "No snow down there, crops coming up finely, that field won't need ploughing next spring." But little mishaps like this do not trouble us, and off we go again, until the rapidly falling snow and the cold winds fairly drive us back to the city, full of renewed life and spirits to once more tackle business affairs. I paid for that supper. Canada won the race.

Although it may seem incredible to the ordinary reader that much pleasure can be derived from a tramp in the woods, when the snow is deep, and the mercury fast on its way towards zero, with, perhaps, the snow falling fast around you as you tramp over the whitened earth; still, the entomologist, as he glances over these lines, will lie back in his chair, and live over the hours which he passed in just such circumstances. How cold his feet were, as he tramped over the snow, with eyes and senses alert to catch some favorable spot, and when he has stripped the bark from some tree, and found a little insect, for which, perhaps, he has been searching for a long time to fill some vacant spot in his cabinet, how soon are the cold feet and the other discomforts of the body forgotten. And who would not endure these trifling privations, to look at this insect, properly classified and in its place among others of its tribe, and on the cold winter evenings to sit by the fire and, as we examine its beautiful structure, to live over those hours.

Sneer at the "bug-hunter" or the "Naturalist crank," if you will, but he has pleasures which you wot not of, and these little things teach to him grander secrets than all the garbled theories of past ages. Or perhaps, as he roams the woods, maybe in a strange place, as I once did, with his gun under his arm, for a

shot at some stray rabbit, he is overtaken by the shades of night in a lonely place, and with the only alternative to roam the woods all night or build a fire and roast a rabbit for supper, and then after a smoke for a night-cap can roll himself in his ulster, and lie down by the side of the fire and comfortably covered can watch the firelight and think over the captmres of the day, and finally drop to sleep as peacefully as a child in its mother's arms, to dream of loved ones far away, secure in the thought that there is nothing there to harm him, as he lies in the midst of Dame Nature's works.

These are experiences which teach us patience and peace in the midst of toil and trouble, and are understood by none but the CRANK.

F. A. Bates.

A Day in the Alpataochee.

The Alpataochee is a wide shallow swamp extending from the Kissimmee Prairie on the west to within about ten miles of Indian River on the east. Its northern border resolves itself into the "Big Saw-grass," in which the St. John's River takes its rise and its southern edge melts away into the Everglades of the Lake Okeechobee region. Late on a sweltering September night I made my lonely bivouac close to its eastern edge and glad enough was I when I unbuckled my knapsack and started up a cheerful blaze on almost the last spot of dry ground I was to see for nearly three days. Coffee and pipe over, I made myself a luxurious palmetto bed, and slept the sleep of the just.

With the first gray streak in the east the whistling wings of ducks awoke me, and before I could get up I shot a nice little Wood Duck for breakfast. That task disposed of, I donned my knapsack again, and put my best foot foremost.

It's astonishing how heavy a knapsack gets to be, the second morning out. When I left Indian River it hardly weighed fifty pounds but now as I blundered about searching for the trail, I began to have pretty clear ideas of what a ton might be. It didn't take me long though to get in good trim, and the trail was plain enough till I struck out into the Alpataochee. Here, for a moment, my heart failed me. A broad expanse of water stretched away west and north as far as I could see, while to the south lay a dense cypress swamp. Here and there patches of weeds grew out of the

water and occasionally the tops of grass and rushes showed where the ground was a little higher. Upon these spots I soon learned how to pick out the trail that I was following, for the teamsters, having flour as part of their load, had selected the highest land they could find to drive upon—I am wrong—I should say the shallowest water to drive in.

As the sun rose and the little silver streams of mist began to enrl away and vanish from sight, I approached a sort of island, as I at first thought, but it was an island of trees and bushes only, and no chance to sit down. So, with my back against a sapling and note-book in hand, I began my bird record for the trip. First I had to put down the Wood Duck though I had already put that down another way. If I had that note-book now I could tell a much longer story. A Kingfisher called noisily for recognition, I remember, and close over my head sported a little Blue-gray Gnatcatcher. Both the Vultures too, I remember, were in sight, and six species of Heron, both the Blues, both the Egrets, the Green and the Louisiana.

The crackers and cowboys of this part of Florida call the Herons, Scoggins. During the day I also saw both the Bitterns, which made a fine showing for the Ardeidae. But the main feature of bird life through all the wild, fascinating and fatiguing tramp was the song of the Meadow Larks. They were never absent and never still. In the gloomy twilight of the sad cypress islands, among the reedy ponds and even the sloughs of open water where only here and there a bending limb showed above the surface the larks were rippling over with music. It seemed to spill out of them wherever they went.

The sun was hot when I came to the Shilohatchee, with its wide fringe of cypress on both sides. Here were Blackbirds and Boat-tails, as well as both species of Crow, and here, too, I first saw the Caracara Eagle. Two or three Wood Ibises surprised me by their tameness. Their local name is Flinthead, and they are seldom molested. Coming out on the other side, I caught a glimpse of a Purple Gallinule, and away off—so far that it took the spy-glass to fully identify them—were two Whooping Cranes. These, also, were the first of the species I had ever seen.

And now, as the sun got still hotter, I was confronted with a very knotty problem, which was, how to get my coat off when there was no place to lay my gun and knapsack down. I did get it off, though, but the way I did it I shall not tell. It was so very ingenious that I

think seriously of patenting the process when I get rich. For several miles before noon the water was quite shallow and with a very perceptible current toward the south-east. A Bald Eagle was in sight for several hours sailing high in air and apparently following my progress. I was told later on, that they frequently follow alligator hunters in this way to feast on the carcasses that are left. Killdeer and Greater Yellow-legs began to abound, and Wilson's Snipe, too, began to "scape" away. These latter during the afternoon were numerous past all conception. Half a dozen or more were in the air on each side of me for hours at a time as I walked. You could have killed them with bricks, but bricks don't grow in that country. As the dinner question began to force itself into prominence, I was glad to see a "pine island" ahead, where I hoped to find dry ground and a chance to rest. This tramping all day under a heavy load and scorching sun with no chance to rest at all except standing up becomes, to say the least, very monotonous. But my hope was all a delusion. There was just one spot in that island about as big as my hat, where a fire could be built. I found it by the smoking embers left by the teamsters whose track I was following. This gave me pretty good proof that I might overtake them before night, and made me quite cheerful while I squatted in the water and cooked my dinner. Dry wood was plenty enough, for many dead branches showed above the water. A Blue Jay scolded me, while I wasn't interfering with his business at all. The Florida cousin possesses all the impudent traits of the rest of the family. My luggage, packed into the low crotch of a pine tree, was an object of great curiosity to a pair of Red-Cockaded Woodpeckers. I remember seeing Brown-headed Nuthatches and Chickadees here, too, and a Spotted Sandpiper puzzled me at first by lighting in a tree.

During the afternoon deep ponds and wide beds of flags were much more numerous. Toward sunset dry islands began to appear here and there, and among them I saw Cardinals, Mockingbirds and the Loggerhead Shrike. Before sundown I sighted the smoke of a camp fire, and joined the teamsters whom I had been following for two days in time for supper. The principal feature of this repast was a Limpkin that tastes much like a chicken only perhaps a little better. A bird which my friends called a Jo Ree puzzled me for some time, but before dark I had it fully identified as the White-eyed Towhee. Near this camp I

also saw the Kingbird, Pewee, and Bluebird. About the latter the Indians tell a pretty little fable. They say, pointing to a bright colored one, "He rubbed his back against the sky," and indicating another of duller hue, "He flew up there when it was cloudy."

Just after sundown large flocks of White Ibises began to fly past and I shot one for dinner the next day. Beautiful as the White Ibis is I assure you he is not a tid-bit. I will never eat one again unless forced to it, and even then I think I shall try and swap it for a crow, even if I have to throw away the crow.

Huskee Hadki.

Nesting of the Kentucky Warbler in Chester County, Penn.

Messrs. Samuel B. Ladd, Thomas H. Jackson, and Hoopes Matlack have all found the nest of the Kentucky Warbler (*Oporornis formosat*) quite frequently in both Chester and Delaware Counties. It probably breeds more abundantly in these two counties than anywhere else in its entire habitat.

On June 25, 1888, I found my first nest of this Warbler. I was walking through a large, swampy woods, when I noticed a Kentucky Warbler acting as if it had a nest. This I soon found, and just as I was going to look in it the young birds fluttered out. The nest was placed on the ground at the foot of a small bush, in a little glen or hollow well sheltered by trees, about twenty or more feet above a stream of running water. Altogether, it was about as pretty and cosy a situation as one could well imagine.

The nest was a beautiful structure, large, and composed externally of dead beech and other leaves, and prettily lined with fine black rootlets.

I determined to go back to this woods this year, and in accordance with this determination, on the 21st of May, 1889, I went there and looked through part of the woods without success. On the 25th of the same month I returned there, and this time was more successful, for before I had been in the woods ten minutes a Kentucky Warbler flew out of a clump of "Skunk Cabbage," about fifteen feet from where I was. After a short search I found the nest. It was placed between the forks and at the foot of a "Spieewood" bush, and among the "Skunk Cabbage." It contained one egg of the Warbler and two Cowbird's eggs.

Owing to the presence of the Cowbird's eggs in the nest I was afraid the female would not lay a full set, and I very foolishly took the two eggs of the Cowbird out of the nest. Almost as soon as I had done this I regretted it, and the result showed my mistake, for when, on the 30th of May, I returned my worst expectations were realized. The bird had not only deserted the nest but had broken the egg also!

Thinking that the bird might have begun to build another nest in the same woods I looked about, and after awhile I found another which I at first supposed was the second nest of the pair whose nest was deserted, but I found afterwards that I was mistaken. Although I was very careful not to touch this nest it was deserted also.

On the 2d of June, in another woods I found my fourth nest. It contained one egg. This nest was placed on the ground between the forks of a small bush, like the others, but it was on a hillside about thirty feet above a stream.

I thought that I would certainly get a set from this nest, but another disappointment was in store for me, for on returning on the 6th of June I found the nest deserted and the egg broken.

Going on from this woods to the other where I had found nests Nos. 1, 2, and 3, I found that as I mentioned before the birds had deserted nest No. 3 also. By this time I was beginning to get disgusted as I had found three nests, and all of them had been deserted.

I was looking through the woods for the last time before going home, when suddenly a Kentucky Warbler got up almost under my feet and ran rapidly along the ground. Looking down I soon saw the nest and was delighted to find it contained five beautiful eggs which were perfectly fresh. It was evidently the second nest of the pair that built nest No. 2, as the egg in that nest was exactly similar to the five I had now found.

On June 7th, I went to another woods and after looking around for over two hours without success I began to get tired and sat down for a few minutes. Suddenly a Kentucky Warbler got up some distance from me (about fifteen or twenty feet, I should say). I soon found the nest. It was placed in a similar position to the others, and contained five slightly incubated eggs. The bird, while I was packing up the nest and eggs, flew from twig to twig uttering cries of distress. This nest was on a slight hillside.

About ten minutes afterwards in the same woods another Kentucky Warbler got up very near me. I found its nest in a few minutes. It contained five young birds. The female ran rapidly along the ground, trying to induce me to follow it and leave the nest unmolested. The male was also near by.

This nest was placed, like all the others, at the foot of a small bush. It was on a piece of level ground between two dried-up streams, and was smaller than the other nests, though similar in construction.

On June 9th, I found another nest of this Warbler. I was walking through the same woods where I found nest No. 4, when a Kentucky Warbler got up close to me. The nest was easily found. It contained four fresh eggs. It was placed like all the others at the foot of a small bush, and was on a hillside. This nest was somewhat different from the others being more slightly put together and having in addition to some dead leaves, some green ones. The lining was the same as the others.

I did not find any more nests until the 21st of June, when I found two which were both in the same woods where I found my first set of eggs. The young birds had left both these nests, one could easily see by their condition. One of the nests, however, contained one rotten egg. They were both placed on the ground between the forks of small bushes, in swampy parts of the woods, and were about an eighth of a mile apart.

On the next day (the 22d), I found a nest (which was just finished) in the woods where I found my second set. I left this until the 29th, when I returned and flushed the bird. The nest then contained three eggs of the Warbler and one of the Cowbird, in which incubation had begun.

This nest had evidently been built by the same pair of birds that I took a set of five from on the 7th of June, as the two nests were not more than fifty yards apart. It was placed on the ground between two small bushes in a rather open, level spot in the woods and was about twenty yards from a stream of water.

Apparently the nests do not differ materially except in size. Sometimes the lining consists also of horse-hair in addition to the black rootlets. The number of eggs in a set is from three to six, though usually four or five. Mr. Ladd has found two sets of three, while Mr. Jackson twice found sets of six. The eggs, like nearly all of those of the Warblers, are sub-

ject to great variation in size, shape, markings, etc., and it would take a large series to show all their variations. Cowbird's eggs are found sometimes in the nests.

I think that a Kentucky Warbler prefers a swampy woods for its nesting place, though they often build on a hillside some distance from a swamp.

The time to look for the eggs is from May 25th to June 10th.

The four sets of eggs may be thus described:

June 6, 1889, Chester County, Penn. Five eggs, fresh; light, creamy white, heavily spotted with hazel and lilac-gray. On three of the eggs the markings are principally confined to the larger ends, where they form indistinct wreaths, but the other two eggs are wreathed around the smaller ends: .75 x .59; .71 x .60; .71 x .58; .71 x .60; .71 x .60.

June 7, 1889. Chester County, Penn. Five eggs, incubation slight; white, speckled and spotted with vinaceous, and a few spots of lilac-gray. The markings are principally confined to the larger ends, where they form indistinct wreaths: .79 x .60; .80 x .61; .77 x .60; .79 x .60; .81 x .60.

June 9, 1889. Chester County, Penn. Four eggs, fresh; white, speckled and spotted with vinaceous-rufous and a few markings of lilac-gray. The markings are much heavier near the larger ends, where they form indistinct wreaths: .76 x .59; .71 x .52; .72 x .59; .67 x .56.

June 29, 1889. Chester County, Penn. Three eggs, incubation begun, (contained also one egg of the Cowbird); light creamy white, speckled and spotted, chiefly at the larger ends, with cinnamon-rufous: .87 x .58; .84 x .58; .82 x .57.

J. P. Norris, Jr.

Winter Birds in the Vicinity of Brooklyn, L.I.

Christmas came on Sunday, in 1887, and Monday being a holiday almost every ornithologist was in the field.

Daylight found me seated on a pine, on the borders of one of the large salt meadows near Brooklyn, waiting for the sun to rise, and also for my friend Ted, who was going to try his luck along with me.

As the sun rose the mist which hung over the meadows was dispersed, and I had a good view of the ground we were to travel over that day.

About a mile away a Marsh Hawk was hunting for its breakfast, stopping now and then

as it saw its prey in the grass, and I wondered if I would ever see it in my cabinet with the cotton coming from the place where its eyes should be.

But here comes my friend, and picking up my gun we make a start, he to the right of the creek and I on the other bank.

The first bird seen was a Meadow Lark, which got away before we could get a shot, and flew to a bunch of grass to the right; so off we started after that Meadow Lark. We had gone about a hundred yards when I heard Ted whistle, and looking his way I saw a large bird which I was not familiar with rise out of range of him, and after circling around two or three times settle a short distance away on the meadows. Thinking we would not get near it again I slipped in two heavy shells and we went off again after our new game.

We advanced cautiously until we were within about ten feet of the place where the bird lit, when without a bit of warning or noise eight pair of wings beat the air, as a flock of Short-eared Owls arose.

Of course I was frightened and fired both barrels at short range without touching a feather; however I had time to drop another shell in my gun and make a fine shot on one as it was circling away to the left.

Ted was much cooler, he picked out the finest bird of the lot, and bagged it without any trouble. After fixing up the birds we hid them where we could pick them up on our return, and then went after the rest of the flock, which had scattered; but we did not get any more as they were on the lookout for us, so after flushing them several times out of gunshot we gave them up, and started for a patch of woods on the other side of the meadows and near the shore. We disturbed a flock of Pipits which were feeding in the grass, but did not shoot as we were after bigger game. Farther on among the rushes on the side of a creek, a pair of Savanna Sparrows eyed us curiously, but these also were left for another time.

Meadow Larks were very common, but wild, and we knew it was no use following them. While walking on the lookout for something new we were very much surprised to hear a rush behind us and saw a duck go scurrying away towards the beach, out of range of course, but I could not resist the temptation to fire a shot at it. As we neared the woods we saw a flock of Juncos and Tree Sparrows in the laurels on the edge. On

entering a few Song Sparrows were seen, and in a bunch of cedars a Chickadee was busily engaged in searching for food.

It was now near dinner time and we started for the beach where we expected to see and maybe to secure some gulls. As we were about to cross an open spot in the woods, a large Hawk was seen on the other side, and we immediately made plans to secure him. Ted was to go under a large tree on the other side of the woods and I was to try and drive the Hawk over to him. I thought I might as well have a chance at him myself, so I put a heavy shell in my gun, and after waiting long enough for Ted to get to his post, I started towards the game. I believe he saw me from the time I started but he paid no attention until I was within about a hundred yards, when he made preparations for departure. I raised my gun to scare him and was surprised to see him, when I fired, fold his wings, catch a moment at the branch, and fall with a thud. A random T shot had hit him in the neck. Ted says I will never have consumption, judging from the way I yelled, but I think he felt rather sore at not getting a shot. When Ted came up we decided that our prize was a Rough-legged Hawk. Feeling very well satisfied with our morning's work we went to the beach and had our lunch. Feeding on the shore were lots of Crows and Gulls, and on the high ground a flock of Horned Larks were flying from place to place, but we had enough for one day and left them until New Year's, when we hoped to meet them again. Our return home was uninteresting except for a short chase after a Sparrow Hawk which had no trouble in eluding us.

Stopping to pick up the Owls we then directed our steps to a woods about a mile from the meadows, and had the pleasure of seeing a Red-tailed Hawk fly away without giving us a shot. In a hole in a tree a Sereech Owl was found, but was left until April when we hoped to get a set of eggs, Owl and all. On the side of a chestnut tree a Brown Creeper was seen running around uttering its note, and looking for insects.

As we crossed a corn field near home we flushed another flock of Horned Larks, and we said we will get them next week, but we never did as it rained on New Year's day and although we went out after them, we did not see them as they had gone probably to a fairer place.

Velox.

A Drive into the Country.

April, the loveliest of the twelve, is come. Robed in a gown of green, and pressing the humbler flowers under her gentle tread she casts away the fading wreath of yellow jasmin which March bequeathed, and garlands her brow with the bloom of the crab apple and wild honey-suckle. Everywhere throughout the broad forest are spread her snowy pavilions of blossoming dogwood. April is our "May time" of the poets. Those writers who have gilded their pages with bright songs of "the May" never lived South.

Yesterday (April 5th) I had occasion, as I frequently do, to drive into the country. The day was one of such delicious balm that I relished keenly every sight and every sound. You have noted, a thousand times perhaps, how the condition of the weather tempers the uncultured music of the woods, and softens or hardens, as the case may be, the commonest scenes of life.

The mild, sweet airs of the day in question smacked just enough of summer to be inviting to "Lazy Lawrence," whose inoffensive image danced on and on, always a hundred yards ahead of the horse; now more distinct, then disappearing altogether where the oaks with their half-grown leaves threw across the road refreshing shadows dotted with dimples of sunshine.

My route traversed a fine farming section; and the long rows of young corn stretching in green threads across wide fields, the luxuriant growth of young oats promising a heavy yield, the black-nosed Jerseys feeding in pastures of rye now beginning to head, the happy, unstudied song of the dusky plowman opening furrows for the seed of "King Cotton," all suited to present to the senses an agricultural picture of rich coloring.

Upon the edge of a well-worn bridge that spanned the head of a mill-pond, with their feet dangling over the water, sat three little darkies lazily watching the corks on their fishing lines below, while in the grass at the feet of a fourth one fishing from the bank wriggled a monster cat fish. They fished on enjoying the warm sunshine, and all unheeding of the voice of a Vireo that kept me peering here, there, everywhere in vain, for the intrepid but invisible songster.

Vireos were numerous along the entire drive. The alders and maple that bordered the streams were vocal with their notes; yet in every instance it was difficult indeed to see the bird.

From top to top of the small oaks by the wayside the Kingbird flitted with a nervous jerk of the wing and his white-banded tail wide spread, always keeping only a short distance out of reach. This species had arrived but a few days before, and the actions of the birds as they ever are upon its first arrival, were half audacious, half stupid. I have many a time observed that the Kingbird when it first returns from its winter home may be almost taken with the hand. It appears not to know whether to fly at the approach of man or to stand its ground and dispute the question with him.

Farther on a small flock of Partridges ran across the road, and an old Bob White perching himself upon a log not twenty steps distant eyed me curiously as I drove by. His clean, white necktie readily betrayed his gender. The remainder of his company stood meekly near.

Where the road stretched through sections of heavy timber the clear-cut note of the summer Redbird attracted and riveted my attention. There was no languor in his tones, but his voice was full of energy.

Again when the highway emerged from the forests and lay between pleasant fields the "querrock" of the Red-headed Woodpecker challenged noticee as he would hammer and "querrock" alternately upon and from the deadened pines still standing. Like his merciless tormentor the Kingbird, our red-headed friend was a fresh arrival, but appeared more like himself. In fact he was as much at home as he will be a month hence feeding and fluttering upon the farmer's ripe mulberries.

I listened often during the day for the "squeal" of the Great-crested Flycatcher but heard it not, he has not come yet.

As the hours passed on apace the sun became almost unpleasant, and I was beginning to grow drowsy under its influence when from high over head the "kil-lay," "kil-lay," "kil-lay," of the hawk fell upon my ear. Birds of prey never fail to interest me, and I scanned the sky in all directions to discover the author of those screams but the hawk was nowhere to be seen. He may have been soaring beyond the reach of vision. I saw only a chimney swallow, like a cigar on wings, penciling in its swift motions Hogarth's lines of grace and and beauty against the bonnie blue of heaven.

By noon I was again at home, where sitting down for a half hour I watched some

BIRDS BUILDING THEIR NESTS.

The Martins were busy conveying light layers

of pine bark to the nesting places which I had provided for them. These agile birds fasten themselves after the manner of Woodpeckers to the towering boles of the pine, and with their bills detach bits of bark thin as letter paper. Out of this bark they construct the foundation and major portion of the body of their nests.

The Martins are building earlier this spring than usual. Indeed they arrived two weeks earlier than I ever saw them before—the first (a male) reaching here the 12th of February.

About two feet distant from a pair of Martins is an English Sparrow's nest; yet the birds do not annoy one another. Apropos of this subject: Last year a little Martin house containing four rooms, each facing a different point of the compass, had three of its rooms occupied by Martins, and the fourth one by a pair of English Sparrows, all rearing broods at the same time; still there was no manifest contention among the birds.

Not two rods from the Martin's quarters, suspended from the branch of an Oak is a gourd in which is a snug nest built by a pair of Bluebirds.

A pair of White-bellied Nuthatches found a shingle displaced on a slope of one of the gables of my dwelling and lost no time in claiming it for a home. Their eggs will probably hatch in less than another week.

All these nests are in my yard and within a few feet of my door; while only thirty yards away a Blue Jay is carrying great armfuls (mouthfuls I mean) of material out of which to construct a nest among the fragrant foliage of a large hickory.

W. B. H.

Smithville, Ga.

Local Names of North Carolina Birds.

HORNED GREBE, White Coot (coast). The Coot (*Fulica americana*) is Blue peter.

PIED-BILLED GREBE, Coot, Helldiver, Die-dapper.

TERNS, Strikers (coast), from method of feeding.

GREEN HERON, Fish Hawk, Scout, Shypoke, Fly-up-the-creek, Indian Hen.

SANDPIPER, Sea Chickens (coast), Snipe (Raleigh).

TURKEY VULTURE, North Carolina Buzzard.

BLACK VULTURE, South Carolina Buzzard.

MARSH HAWK, Rabbit Hawk, Oldfield Driver, Goshawk, Chicken Hawk.

SHARP-SHINNED HAWK and COOPER'S HAWK, Blue-tailed Hawk, Blue-tailed Darter. Any large Hawk, Goshawk, Chickenhawk, Hen-hawk.

CUCKOO, Raincrow.

PILEATED WOODPECKER, Logcock, Woodcock, Woodhen, Good God (from the cry), Indian Hen, and also most names applied to the Redhead.

RED-HEADED WOODPECKER, Red, White and Blue Woodpecker, Shirt-tailed Woodpecker, Redhead.

FLICKER, universally known as Yellow Hammer.

WOODPECKERS in general, Peckerwoods, Sapsuckers.

NIGHT HAWK, Bullbat, or more frequently simply "Bat."

KINGBIRD, Beemartin.

BOBOLINK, Rieebird.

The large Sparrows are known as Bull-sparrows.

CHIPPING SPARROW, Tree Sparrow, from situation of nest.

FIELD SPARROW, Ground Sparrow and Bush Sparrow, from situation of nest. Supposed to be different species by most boys here.

CARDINAL, Winter Redbird.

BLUE GROSBEAK, Big Indigo.

SUMMER TANAGER, Summer Redbird.

PURPLE MARTIN, Black Martin, House Martin.

VIREOS in general, Hangers, from the nest, the birds are not known.

MARYLAND YELLOW-THROAT, Briarbird, a name applied to any small yellowish bird found in thickets.

YELLOW-BREASTED CHAT, Joree, Pompey, Joreeper; Pompey is the commonest.

PIPET, Skylark, a name also applied to the Horned Larks when they appear.

BROWN THRASHER, sometimes called Swamp Sparrow or Swamp Robin, names applied to any brown bird with a speckled breast.

CAROLINA WREN, House Wren.

BLUEGRAY GNATCATCHER, Mossbird, from its nest.

WOOD THRUSH, invariably known as Swamp Robin.

The above list includes most local names of any importance that are used here, but a great many others are used on the coast, and probably others in other localities.

In this connection it may be worth while to notice a few peculiar notions about some birds. I have frequently been asked whether Snowbirds (Juncos) did not turn into Sparrows in

summer; a still stranger metamorphosis (supposed) is that of the Blueneters (coots) down east, according to residents of that section they turn into Bullfrogs in the summer. A third victim of superstition is the Blue Jay, who, according to good authority, "totes fire to the devil" every Friday.

Raleigh, N. C.

C. S. Brimley.

A Prisoner from Greediness.

A few days ago, while walking in the garden, I saw a Chipping Sparrow (*Spizella socialis*) make several attempts to fly from the ground. I thought at first the bird was wounded or had become entangled in a string or horse-hair, and was therefore unable to get free, but what was my surprise on going to the spot to see a green blade of grass protruding from the bird's bill while it was still fastened at the root end where it grew. I easily took the bird in my hand, and plucking the blade of grass brought the bird indoors. I endeavored to pull the blade from the bird, but after extracting an inch or more it broke off, and compared with while I was pulling, the bird seemed relieved.

On dissecting I found a grasshopper in the stomach and fully two inches of the grass blade wrapped around it.

The bird in its eagerness to catch and swallow the grasshopper had also swallowed a part of the growing grass blade on which it doubtless rested, thus becoming a prisoner by its own greediness.

Shelley W. Denton.

Brewster's Museum, Cambridge, Mass., June 26, 1889.

Nests that Perished in the Storm.

On May 29 and 30, 1889, we were visited by a severe cold northeast storm. It rained with unabated fury, without a single break, for two days and one night, and after it was over I went out to see what had become of the young birds.

The first thing that met my view as I left the door was a young bird lying dead in the path. I next examined the nests of a Meadow Lark and a Song Sparrow, that I knew contained young, and found them all dead in their nests. I then went to a swamp where I knew a great many Red and Buff-shouldered Blackbirds were breeding and made diligent search; and among all the nests that I examined that contained young birds, not one was living. All were dead in their nests.

I then continued my search elsewhere, and of all the nests that I saw that day, that were in any way exposed to the storm, only two contained living birds. I suppose that the parent birds were driven from their nests by the severity of the storm or for want of food for themselves and young, which caused the slaughter. And as the storm extended over the greater part of Michigan the mortality must be very great; and I think it is safe to say that, as far as the storm reached, more than two-thirds of the young birds, which were in their nests, perished, and a great many heavily incubated eggs were left in their nests, forsaken and cold, which adds so much more to the destruction of bird life in Michigan.

James B. Purdy.

Plymouth, Mich.

A Review for the Past Winter.

The past winter of '88 and '89 was of more than usual interest to the ornithologists of this state. While most of the winter birds were present, some were totally absent, for the first time in several years. Bluebirds were seen in fore part of January. Redwings and Robins were also noted on January 20, but a cold snap soon set in and they left.

Evening Grosbeaks and Bohemian Waxwings were very plenty all winter. The Grosbeaks arrived November 29, and remained till April 13. The Waxwings came on January 17, and left about the first of April. Cedarbirds have been seen continually since the first of February.

The Prairie Horned Lark was first seen January 3, and was breeding on the 12th of March. Sets of eggs of this species were very small this year, two and three being the rule, formerly five was more frequently the complement. Tree Sparrows remained all winter in the tamarac swamps, something quite unusual. Crossbills and Pine Grosbeaks, abundant the preceding winter, were not seen, also the Northern Shrikes.

Of the Woodpeckers the Hairy and Downy were quite numerous. Several of the Black-backed Three-toed were seen in tamaracs.

No Red-headed Woodpeckers were seen, as has been the case in previous mild winters. The same may be said of the common Crow.

Both the Lesser Redpoll and Snow Bunting were not in their usual numbers.

White-bellied Nuthatches and Chickadees were numerous as usual.

Hawks and Owls were very scarce, a Barred

Owl and Goshawk being the only representatives noticed.

The Leucosticte recorded in the notes of the February, '89, O. & O., as *L. tephrocotis* is a mistake, owing to the wrong identification of a skin in my cabinet, to which I compared it. It should have been *Leucosticte t. litoralis* or Gray-cheeked Rosy Finch. Mistakes will happen with the most careful.

The migration fairly began April 23, Yellow-rumps, White-throated Sparrows, Swallows, etc., appearing. Red-tailed Hawks and Long-eared Owls were breeding at that time.

Geo. G. Cantwell.

Minneapolis, Minn.

Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

The formation of a league by Ornithologists of Massachusetts, if guided with care, will be an organization that will not fail to exert an influence. That there has been a gradual encroachment of late on their rights is due to the lack of such an organization by which to present their cause, more than from other reasons. Their numbers, together with those who endorse them, are sufficient to defend their interests and yield a political influence as strong as those who oppose them. We request all who are interested to communicate with the secretary of the league, who will furnish full information of its objects and purpose.

League of Massachusetts Ornithologists.

A meeting of a number of ornithologists was held in Boston, June 25, 1889. After discussing the subject, it was unanimously decided to organize, and the following board of officers was chosen: President, Frank B. Webster of Boston; vice-president, Charles J. Maynard of Newtonville; secretary, Frank A. Bates of Boston; treasurer, Levi W. Newell of Boston; Judiciary committee, Chas. K. Reed of Worcester, N. Vickary of Lynn, H. W. Marsden of Boston. The object of the league is the promotion of the scientific study of ornithology. FRANK A. BATES, Secretary, 409 Washington street, Boston.

Brief Notes.

Now that the collecting season is over, the oologists are busy exchanging and disposing of their duplicates. Notwithstanding that birds' eggs are sold at from one to four hundred times the market value of hens' eggs, it is not profitable work collecting them. The only way that they can be obtained to sell at the present rates at

which they are offered, is through the willingness of the collectors to dispose of their surplus at a nominal price, to obtain such as are not common to their localities. A great many exchanges are made by parties living at remote distances, and it is necessary to do it through the mails. The handling of the mail is by no means done in a dainty manner. The way a mail bag goes from a flying express would make any collector hold his breath if he thought that his collection was in it. To avoid as far as possible the dangers of unexpected jars it will be found an advantage to pack eggs as follows:

Use good solid cigar boxes, and a few extra brads will do no harm. On the bottom of the box put a layer of cotton one-half an inch thick; wrap each egg carefully with cotton from three-eighths of an inch in thickness for small ones to one inch on the larger; pack them carefully in box, placing cotton between them and the sides, and over them. Be sure and do not use a box that is a close fit. Thumping and weight of other mail matter will often spring the sides or cover, and if there is not plenty of play a break will surely be the result. Tin spice boxes do nicely for small lots. Paper boxes are fatal. If there are several sets, the eggs of each set should be marked so as to be easily distinguished before unwrapping. This may be done by using colored paper, or colored thread. All eggs should be carefully numbered before shipping, to insure identity.

A sooty Shearwater was shot at Nahant, Mass., July 4th. N. Vickary.

A. H. Frost of New York city, formerly of Malden, Mass., who has been interested in oology for a number of years, has been making quite an addition to his private collection.

C. K. Reed having purchased H. L. Rand's interest, now controls what is known as the Rand and Reed Oval-Convex Glasses. The demand for these glasses is steadily increasing.

We recently received a nest of the White-bellied Swallow. It is thickly lined with pure white hen's feathers; together with the four white eggs, the appearance is one of unusual delicacy.

N. Vickary has sent us a sketch of the nest of the Golden-crowned Kinglet, recently reported by him. It represents the nest suspended under the limb of a spruce with the smaller branches on both sides falling over so as to screen it. The entrance, a round hole, is at the top under the limb towards the tree. The bird, to gain access, had to pass under and parallel with the limb; he writes that it is about the size of a Goldfinches' and made of green rock moss.

A specimen of the Black Tern in full breeding plumage was taken this spring in this state.

It takes just two to three per cent. to satisfy the cravings of one of our New York city exchanges. That locality always has been noted for its enterprise in public monuments.

Judge.—Well, sir; are you the man that killed the dog?

Defendant.—Yez sur, yez sur, yur honor.

J. — Did you consider him vicious?

Def.—Yez sur, yez sur, yur honor; he run furnist me, he did, sur.

J. — Did he annoy you by visiting your premises?

Def.—Yez sur, yez sur, he did, sur.

J. — You acknowledge that you killed him?

Def.—Yez sur, yez sur.

J. — You shot him in self defence?

Def.—No sur, no sur, I shot him in thur back and he jumped over de fence, sur, he did sur.

Mr. Chas. Hallock, editor of *Recreation*, in a personal letter from Kingston, Ontario, notes "To-day, I noticed an English Sparrow persistently chase, capture and devour a 'Shad-fly,' which swarm on the river and lakes in July and August. First time I have ever seen them eat anything but droppings in the street, and bread fed to them." Mr. Hallock is making a tour of the country, and will be in St. Paul next month, and in Manitoba later. The readers of "*Recreation*" will no doubt be allowed to hear from him, through his interesting articles in his magazine.

And now comes a list, issued from the Pacific coast, of first-class skins at reduced rates. We note the following new species: "Mouring dove," "Audubois warbler," "Breweris blackbird," "Anis humming bird," "Rufous humming bird," "California wood-pecker Killdeer," "Slive-sided flycatcher," and "Shut-eared Owl."

Those western boys are fertile in new designs.

Just watch that little vicious fly
Buzz round, and round, and round;
No greater wonder 'neath the sky,
Search where you may, is found.

From morn till night, till it doth die,
T'will bite, and bite, and bite
Both sinner and saint. "That wicked fly!"
And to speck seems its special delight.

From your nose to your eye
It will crawl, crawl and crawl;
You slap at that fly,
And yourself get a manl.

At last it grows weary—tired little fly—
And washes its feet, feet and feet;
It makes up its mind, determines to die,
And jumps in the soup—oh, how neat!

Clippings.

RAISING WOOD DUCKS.—HOW AN EGG-COLLECTOR BEAT A SALEM FARMER.—Collectors of natural history objects find the cultivation of shrewdness a help in their chosen field. This spring a Salem farmer showed a Norwich oologist a wood duck's nest with a fine clutch of eggs in it and assured him he proposed at the proper time to take the eggs, hatch them under a hen and have a flock of ducks not readily duplicated. The egg-collector felt that the scheme of his friend was barbarous, and was doubtful of its feasibility, but he did not question it, he simply spoke an encouraging word to his farmer friend, and then set to work to decide how he should capture those eggs for himself. Fair exchange he thought was no robbery, so he purchased half a dozen domestic ducks' eggs of about the same color and size, and going to the wood duck's nest in the hollow tree, substituted them for the coveted clutch which he took home and added to his collection. The farmer bided his time, and then took the eggs from the wood duck's nest and placed them under a hen. The hen hatched the eggs, and the ducklings are running about the farm the admiration of the farmer who has built for them a pretty duck-house, and who is waiting for them to take on the beautiful plumage

for which the wood duck is noted. The wicked oologist is smiling in the meantime over his own shrewdness and his friend's child-like faith in eggs of which he knows nothing.

An Ornithological Poem.

WRITTEN A NUMBER OF YEARS SINCE BY MR. G. HUNTER DUVAN, NOW OF PRINCE EDWARDS ISLAND.

Respectfully dedicated (without permission) to the Nova Scotia Institute of Natural Science.

"Ala-ba-ma—Here I'll set up my everlasting rest."—*Auk.*

'Twas on a cliff of Newfoundland,
Where fishy seas the shores environ,
And English steamers sometimes come
To smash themselves on coasts of iron,
There sat an *AUK* ("Pengninus [Funk]
Impeennis"), at the time of our story
An old and venerable *Auk*,
With beard and whiskers growing hoary.

This valuable bird had kept
On nature such a long espial,
It almost led his mind to doubt
The theory of Sir Charles Lyell;
The whole Kosmogony he summed
As briefly as he were Colenso,—
The mystery of the universe — he
Couldn't see why Auks were plagued by men so.

"Alas! (said he) I've never seen
But changes since I learned to waddle—
That was in Odin's days,—and when
King Olaf used 'long shore to paddle,
And 'ye long serpente' bowled along
Under command of Colonel Snorro,
And the Phoenicians just escaped
The fate of Sodom and Gomorrah.

"And then the men I've known! Bjorn
And the red-haired Erie's Viking-hearties,
Besides old Thorfin, Gudrid, Lief,
And other mythical, maritime parties;
Cabot, Jack Cartier,—after them,
The fleets that sailed for buccalore,
Flamanks and English (drenched in beer)
And Gascons from the Biscay shore.

"Gone are they all! friends of my youth!
Nought now exists me pleasure giving,
I feel my mission's almost o'er—
Besides the great expense of living;—
Come, let me pause:—'To be or not,
That is the question'—(here he winked,)
The name of *Auk* shall honored be—
I have it: I'LL BECOME EXTINCT."

But ere he died, like dying swan,
A something changed his common breath
From something gross to something holy,
Like to most other things in face of death;
And thus it chanced, though strange it be,
Something like melody his should float
As a refrain to the sad voice of sea,
(Although the bird had never learned a note).

SONG OF THE GREAT AUK.*

Bountiful sea,
Ever bringing gifts,
Then casting them wastefully
Into the rifts
Of the surf-beat lee,
Cheating us meanwhile with a laugh of sun.
Treacherous sea,
Fawning at our feet,
Murmuring and making music
Low and sweet;
Yet, though fair you be,
Cheating us with a distant loom of storm.
Mystical sea,
Raging and toying;
Aye, dost thou to the law of change conform,
Ever constructing, ever destroying
Bringing and taking as the courses run,
Cheating us by a mingle—storm and sun.

Then straight he went and dug his grave,
In the guano moist and mottle,
But ere he gave his latest groan,
He put this legend in a bottle:
"Alca impennis, Tuesday, noon,
Lon. 0°, Lat. 76°. I'm going;
Whoever finds these scattered bones,
Please forward to Professor Owen."

* The rhythm is rugged, but what could you expect from a Penguin.

New Publications.

From J. M. Rusk, Secretary of Agriculture, *Report of the Ornithologist and Mammalogist*, author's edition, 1888, containing special reports on (1) Introduced Pheasants; (2) The Mink, by Dr. C. Hart Merriam; (3) The Sparrow Hawk; (4) The Short-eared Owl, by Dr. A. K. Fisher; (5) The food of Crows; (6) The Rose-breasted Grosbeak, an enemy of the Potato bug, by Walter B. Barrows. The special report on the food of the Crows is quite exhaustive and the verdict is, weighed in the balance and found "not wanted."

Recreation, a monthly exponent of the higher literature of manly sport. Vol. III, No. 2, June, published at 150 Dearborn St., Chicago, Ill. \$2.00 per annum. Editors: Chas. Hallock, late editor of Forest and Stream, Fred E. Pond, "Will Wildwood." A glance at its pages convinces us that it will be one of the most popular of our sporting publications. Its character and tone is of the highest order. Sample copies 20 cents.

We are in receipt of the *Report of the Entomological Society of Ontario* for 1888. This issue of the publication contains among many other interesting articles, a very complete report on the "Sphingidae of Quebec" by Rev. Thos. W. Fyles, with a very valuable table for the determination of the larvae of this family.

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—AND—

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BOSTON, MASS., AUGUST, 1889.

No. 8.

Birds of Chester County, Pa.

[Continued from page 97.]

101. *Scolecophagus carolinus* (Müll.). Rusty Blackbird. Transient visitant; common. Arrives first week in March; and their stay is of a short duration, as they generally leave by the 25th of that month, reappearing the second week in September, and remain until the last of October.
102. *Quiscalus quiscula* (Linn.). Purple Grackle. Summer resident; abundant. Arrives first week in March. Nidification commences last week in that month; two broods each season. Eggs, four to six. Departs second week in October.
103. *Pinicola enucleator* (Linn.). Pine Grosbeak. Winter visitant; rare. During severe winters it may be occasionally seen from December until March.
104. *Carpodacus purpureus* (Gmel.). Purple Finch. Winter resident, rare; common during migration; arrives second week in October, and departs last week in March.
105. *Loxia curvirostra minor* (Brehm.). American Crossbill. Winter visitant; rare. Found occasionally during severe weather.
106. *Loxia leucoptera* (Gmel.). White-winged Crossbill. Irregular winter visitant; very rare.
107. *Acanthis linaria* (Linn.). Redpoll. Winter resident; rare. From last of November until first week in March.
108. *Spinus tristis* (Linn.). American Goldfinch. Resident; common. More plentiful during the summer. Nidificates last week in June; eggs, four to six.
109. *Spinus pinus* (Wils.). Pine Siskin. Winter resident; rare. From December to March it may be met with occasionally.
110. *Plectrophenax nivalis* (Linn.). Snowflake. Winter visitant; rare.
111. *Poöcetes gramineus* (Gmel.). Vesper

Sparrow. Summer resident; common. Arrives first week in April. Nidification commences by the first week in May; two broods are reared each season; eggs, four to five. Departs first week in November.

112. *Ammodramus savannarum passerinus* (Wils.). Yellow-winged Sparrow. Summer resident; tolerably common. Arrives first week in May. Nidificates in old fields by the 1st of June; eggs, four to five. Departs last week in October.

113. *Zonotrichia leucophrys* (Forst.). White-crowned Sparrow. Transient visitant; common. Arrives second week in October, and again the first week in April.

114. *Zonotrichia albicollis* (Gmel.). White-throated Sparrow. Transient visitant; common. Arrives second week in April, and again by the 15th of October. In mild winters they are frequently met with.

115. *Spizella monticola* (Gmel.). Tree Sparrow. Winter resident; common. Arrives by the 20th of October and remains until the 15th of April.

116. *Spizella socialis* (Wils.). Chipping Sparrow. Summer resident; common. Arrives first week in April. Nidificates by the 20th of May; eggs, three to four. Departs first week in October.

117. *Spizella pusilla* (Wils.). Field Sparrow. Summer resident; common. Arrives second week in April. Nidification takes place by the middle of May; eggs, three to five, two broods each season. Departs first week in November.

118. *Junco hyemalis* (Linn.). Slate-colored Junco. Winter resident; abundant. Arrives second week in October and remains until the 20th of April.

119. *Melospiza fasciata* (Gmel.). Song Sparrow. Resident; abundant. Nidificates by the 25th of April; eggs, four to five; rears two broods each season.

120. *Melospiza lincolni* (Aud.). Lincoln's

Sparrow. Summer resident; rare; tolerably common during migration. It frequents thick bushes and old clearings where it nidifies; have only met it nesting upon two occasions. One found on June 18, 1886, contained four young, and was placed on the ground at the base of an old chestnut stump; found the second nest June 5, 1887, in a large brush-heap, and contained five eggs, .72 x .61; ground color, greenish-white with reddish-brown blotches over the whole surface. Both nests were composed of slender stems of *Panicum*, and lined with horse-hair. Departs by the second week in October.*

121. *Melospiza georgiana* (Lath.). Swamp Sparrow. Transient visitant; common. It may be occasionally found breeding. Mr. Doan found its nest and eggs along the western borders of the county on June 10, 1886. Arrives second week in April, and departs by the last week in November.

122. *Passerella iliaca* (Merr.). Fox Sparrow. Transient visitant; common. Arrives by the 15th of March, and remains until the second week in April, reappearing first week in October, and lingers until the last of November. They sometimes, in mild winters, remain throughout that season.

123. *Pipilo erythrorthalos* (Linn.). Towhee. Summer resident; common. Arrives first week in April. Nidification takes place by the middle of May; eggs, four to five. Departs second week in October.

124. *Cardinalis cardinalis* (Linn.). Cardinal. Resident; common. Nidification commences the last week in April; eggs, three to four; two broods are reared each season.

125. *Habia ludoviciana* (Linn.). Rose-breasted Grosbeak. Summer resident; common during migration, but a few remain to breed each season. Arrives third week in May. Begins laying first week in June; eggs, three to four. Departs by the 25th of September.

126. *Guiraca caerulea* (Linn.). Blue Grosbeak. Accidental visitant; rare. Mr. George Kinzer, in company with Mr. Doan, took one of this species on June 1st, near Oxford, this county.

127. *Passerina cyanea* (Linn.). Indigo Bunting. Summer resident; common. Arrives first week in May. Nidification takes place

last week in that month; eggs, three to four. Departs last week in September.

128. *Spiza americana* (Gmel.). Dickeissel. Formerly a very common summer resident, but now becoming very rare. Did not meet with it but once during the past season.

129. *Piranga erythromelas* (Vieill.). Scarlet Tanager. Summer resident; common. Arrives second week in May. Nidification commences first week in June; eggs, three to four. Departs by the first week in September.

130. *Passer domesticus* (Leach). English Sparrow. Resident; abundant.

131. *Progne subis* (Linn.). Purple Martin. Summer resident; tolerably common. Arrives second week in April. Nidificates in boxes about buildings by the first week in May; eggs, four to six. Departs by the 10th of September.

132. *Petrochelidon lunifrons* (Say.). Cliff Swallow. Summer resident; common. Arrives first week in May. Nidificates the last of the same month, under the eaves of barns; eggs, four to six. Departs by the 15th of September.

133. *Chelidon erythrogaster* (Bodd.). Barn Swallow. Summer resident; abundant. Arrives and departs with the *P. lunifrons*. Nidification takes place by the third week in May; eggs, four to five.

134. *Tachycineta bicolor* (Vieill.). Tree Swallow. Summer resident; rare. More plentiful during migration. Arrives first week in April. Eggs, four. Departs first week in September.

135. *Civicola riparia* (Linn.). Bank Swallow. Summer resident; common. Arrives first week in May. Nidificates by the last of that month; eggs, four. Departs second week in September.

136. *Stelgidopteryx serripennis* (Aud.). Rough-winged Swallow. Summer resident; tolerably common. Arrives first week in May. Nidification commences by the 25th of that month; eggs, four to six. Departs by September 20th.

137. *Ampelis garrulus* (Linn.). Bohemian Waxwing. Accidental visitant; very rare. Mr. Doan has one, a fine male specimen, which he took near Atglen, this county, January 5, 1880.

138. *Ampelis cedrorum* (Vieill.). Cedar Waxwing. Resident; irregular; some years they are abundant, others rare. Nidification commences the second week in June; sometimes not until the last week in that month; eggs, four to five.

* Exceptions have been taken to this record since the article was put in type, and we publish it subject to future correction. The bird is recorded as breeding only North of the United States, or upon high mountains.—ED.

139. *Lanius borealis* (Vieill.). Northern Shrike. Winter resident; tolerably common. Arrives by the first week in December, and remains until the second week in March.

140. *Vireo olivaceus* (Linn.). Red-eyed Vireo. Summer resident; common. Arrives first week in May. Nidificates by the last week of that month; eggs, three or four. Departs last week in September.

141. *Vireo gilvus* (Vieill.). Warbling Vireo. Summer resident; common. Arrives first week in May. Nidification commences not later than the 25th; eggs, three or four. Departs last week in September.

142. *Vireo flavifrons* (Vieill.). Yellow-throated Vireo. Summer resident; tolerably common. Arrives 1st of May. Nidification takes place by the 25th of that month; eggs, three or four. Departs last week in September.

143. *Vireo solitarius* (Wils.). Blue-headed Vireo. Transient visitant; rare. I took one of this species near Coatesville, this county, May 20, 1888, which is the only one I have seen.

144. *Vireo noreboracensis* (Gmel.). White-eyed Vireo. Summer resident; common. Arrives first week in May. Nidification commences by June 1st; eggs, three or four. Departs first week in October.

145. *Mniotilla varia* (Linn.). Black and White Warbler. Summer resident; tolerably common. Plentiful during migrations. Arrives first week in May. Nidificates by the first week in June; eggs, four or five. Departs first week in September.

146. *Protonotaria citrea* (Bodd.). Prothonotary Warbler. Accidental visitant from the South; have never taken this species but once.

147. *Helmintherus vernivorus* (Gmel.). Worm-eating Warbler. Summer resident; tolerably common. Arrives first week in May. Nidification commences by the 28th of that month. I have found this species more plentiful among the thickets and heavy undergrowth, which covers the hills on the eastern banks of the Octoraro creek, than elsewhere. Eggs, four to five. Departs first week in October.

148. *Helminthophila pinus* (Linn.). Blue-winged Warbler. Summer resident; tolerably common. Arrives second week in May. Nidification begins first week in June. The nest is always placed on the ground, at the base of some small bush in open woods or clearings. Eggs, four or five; departs by the 15th of October.

149. *Helminthophila chrysoptera* (Linn.). Golden-winged Warbler. Summer resident;

rare; in migration common. Arrives last week in April. Nidificates by the last week in May; the nest is generally placed in a tussock, in some low swampy land, which is mostly covered by alders. Eggs, four. Departs first week in October.

150. *Helminthophila ruficapilla* (Wils.). Nashville Warbler. Summer resident; rare; in spring and fall tolerably common. Arrives first week in May. Found nest June 10, 1886, with four young. It was placed on the ground at the base of a large grape-vine, and was composed of leaves and lined with horse-hair. Departs by the last week in September.

151. *Helminthophila peregrina* (Wils.). Tennessee Warbler. Transient visitant; tolerably common. Arrives last week in April, and again by the third week in September.

152. *Compsothlypis americana* (Linn.). Parula Warbler. Summer resident; tolerably common; in migration common. Arrives second week in May. Nidificates first week in June; eggs, four to five. Departs first week in October.

153. *Dendroica aestiva* (Gmel.). Yellow Warbler. Summer resident; common. Arrives first week in May. Nidification takes place by the 25th of that month; eggs, three to five; sometimes they rear two broods in a season. Departs by September 15.

154. *Dendroica caerulescens* (Gmel.). Black-throated Blue Warbler. Transient visitant; common; arriving by the 10th of May, and remains for eight or ten days, when it leaves to reappear second week in September.

155. *Dendroica coronata* (Linn.). Myrtle Warbler. Transient visitant; common. Arrives first week in April, and remains for two or three weeks; reappears first week in October. I have met with individuals here during mild winters; usually they depart by the last of November.

156. *Dendroica maculosa* (Gmel.). Magnolia Warbler. Transient visitant; tolerably common. Arrives by the 10th of May, and again first week in September.

157. *Dendroica cærulea* (Wils.). Cerulean Warbler. Transient visitant; tolerably common. Arrives by the 10th of May, and again by the second week in September.

158. *Dendroica pennsylvanica* (Linn.). Chestnut-sided Warbler. Transient visitant; common. Arrives first week in May, and again by the first week in September.

159. *Dendroica castanea* (Wils.). Bay-breasted Warbler. Transient visitant; tolerably common. Arrives last week in April,

and I have taken them here as late as May 25. Reappears first week in September.

160. *Dendroica striata* (Forst.). Black-poll Warbler. Transient visitant; common. Arrives second week in May, and again by the first week in September, remaining until the last week in that month.

161. *Dendroica blackburnia* (Gmel.). Blackburnian Warbler. Summer resident; rare; in migration common. Arrives first week in May, and I have found its nest containing fresh eggs by June 10. Departs last week in September.

162. *Dendroica dominica* (Linn.). Yellow-throated Warbler. Accidental straggler in summer. Took one on June 15, 1887, which is the only one of this species I have ever observed here.

163. *Dendroica virens* (Gmel.). Black-throated Green Warbler. Transient visitant; common. Arrives by the 10th of May, and again by the second week in September.

164. *Dendroica rigorsii* (Aud.). Pine Warbler. Summer resident; rare. Arrives second week in April, and have found their nest by the third week in May. Departs by October 20.

(To be continued.)

Cyrus B. Ressel.

Ercildoun, Pa.

A Series of Eggs of the Chuck-will's-widow.

The eggs of the Chuck-will's-widow (*Autostomus carolinensis*) are always two, and are either deposited on the bare ground, or on a few dead leaves in a wood. In shape they are elliptical oval, and it is seldom that they are smaller at one end than at the other. Their ground color is very constant, being a pale pinkish-buff, and seldom varies in tint, but their markings show great variation, and the difference in the sizes of different sets of eggs exhibit great variation. It should be remarked, however, that the two eggs in each particular set show but little difference in size.

Set I. April 8, 1886, Comal county, Texas. Two eggs, pale pinkish-buff marbled with lilac-gray and fawn color: 1.28 x .95; 1.31 x .94. The smallest sized set in the series.

Set II. May 30, 1887. La Fayette County, Mississippi. Two eggs, very pale pinkish-buff, spotted with lavender-gray: 1.38 x .94; 1.39 x .91.

Set III. May 8, 1888, Chatham County, Georgia. Two eggs, very pale pinkish-buff,

lightly spotted with lavender-gray, and few specks of burnt umber: 1.43 x .99; 1.39 x .99.

Set IV. May 14, 1887. La Fayette County, Mississippi. Two eggs, pinkish-buff, heavily marbled and spotted with lilac-gray and tawny-olive: 1.39 x 1.02; 1.38 x 1.01. The above describes these eggs as they appear now, but they were very different when I first received them. My collector packed them up the day after he took them, and sent them to me at once, so that they reached me about three days after they were collected. The colors were then much brighter than they now are, and what is now tawny-olive color was then almost burnt umber, but in spite of being kept away from the light they have steadily faded.

Set V. June 8, 1885, Edgecomb County, North Carolina. Two eggs, pale pinkish-buff, marbled with lilac-gray, and spotted with drab: 1.51 x 1.01; 1.54 x 1.04. The largest sized set in the series, and very large eggs for this species.

Set VI. May 9, 1885, St. John's County, Florida. Two eggs, light pinkish-buff, spotted and marbled with lilac-gray, and one egg has also a few small spots of burnt umber: 1.39 x .98; 1.39 x 1.02.

Set VII. May 21, 1886, Beaufort County, South Carolina. Two eggs, pinkish-buff, spotted and marbled with lilac-gray and burnt umber. There are also some spots of drab. Heavily marked for this species: 1.35 x 1.02; 1.37 x 1.02.

Set VIII. June 9, 1887, Beaufort County, South Carolina. Two eggs, pinkish-buff, marbled and spotted with lilac-gray and bistre. There are also heavy blotches of mouse-gray. The markings on this set are the heaviest of any in the series, and they are the handsomest eggs: 1.44 x 1.04; 1.34 x 1.01.

Set IX. May 4, 1885, St. John's County, South Carolina. Two eggs, pinkish-buff, marbled and spotted with lilac-gray, mouse-gray, and bistre. The spots of the latter color are all grouped around one end on each egg, where they form indistinct wreaths. This is an unusual style of marking for this species: 1.43 x 1.02; 1.44 x 1.02.

J. P. N.

A Queer Nest.

Those who have been out in the Mexican country well know the condition it is in. Here and there you see the bodies of the cattle that have perished through the winter for want

of food. The ranch men have to herd them from one ground to another, and on the way many of them perish as the weather is so dry, and the sun burns the grass to the roots. Well, one day in June, I started on an expedition for some birds. It was a fine morning, the sun just rising above the horizon. I rode along taking in the country that surrounded me on all sides, when my attention was attracted to some dark objects hovering about in the sky. I knew in a minute they were Buzzards, so thinking to get a shot at them I started towards the spot, and luck was running my way, for they did not want to leave and I tried several successful shots at about five hundred yards. When I came up I saw what they were after. There in the hollow lay several dead animals; the stench would turn you inside out. I rode up to survey the bodies when my attention was attracted to some small brownish objects on the body. I looked a little closer, and sure enough there were three bunting eggs. I was tempted very much to lay claim to them, but through curiosity I left them, to return in a few days to find them the same as before. What surprised me was that the Buzzards did not take the meat where the eggs lay. Well, I stopped around for several hours but no parent birds appeared. On the way back I flushed several of them that were feeding with some Titlarks. I returned to my treasure in a few more days to find two of them turned into small yellow balls, this time I stopped around all the morning but still no parent birds appeared. I did not know what to make of it, I could not see what fed and brought them out. I left and returned in two more days, but still the other egg was void. I continued to visit the nest frequently but did not find my parent birds within sight. At last one day I decided to stop all day, and to my surprise I saw a Titlark come running along with something in her mouth. I thought she was going to feed them but she passed the spot and went to her own nest just below. Presently I spied a Bunting coming along with a bug in its bill, it flew to the top and dropped its burden to her young, who devoured it as if they had not seen food for some time.

I visited the place a week or so later and the body was very nearly all devoured and no signs of the young birds to be seen. I suppose some hungry hawk or some other ravenous beast had made way with them, at any rate I never found out what became of them.

Wm. Cunningham.

La Junta, Mexico.

Nesting of the Cerulean Warbler.

On May 19, 1889, while going through the woods in search of nests, I happened to see a small nest situated in a tree about forty-five feet high. Thinking from its appearance it must be the nest of some warbler I strapped on my climbing irons and went up the tree, and upon reaching the nest I found it to be all completed but contained no eggs, so I left it with the determination of visiting it again.

On the morning of the 25th my father and I went over there, and upon climbing the tree I found a Cerulean Warbler (*Dendroica cerulea*) sitting on the nest. When she left the nest I found it contained five fresh eggs, which I safely packed and sent down on a string which I had for the purpose. I then sawed off the limb and sent down the nest.

While getting the eggs and nest both the ♂ and ♀ of the birds were close around, sometimes coming within five or six feet of me. The nest was situated in a beech tree forty-six feet high and twelve feet from the body of the tree. It is saddled on the limb and is composed of fine strips of the inner bark of trees with a few strips of grape-vine bark, and having a few pieces of a kind of fungus fastened to the outside and is lined with a fine vegetable substance very much resembling red hair.

The eggs are of a greenish-white profusely spotted with small blotches and dots of light reddish-brown and lilac, forming a ring around the larger end, and with blotches of light reddish brown distributed over the entire surface. They measure .67 x .51, .65 x .50, .66 v .49, .65 x .51, and .65 x .50.

E. W. Durfee.

Wayne County, Mich.

[Since writing the above Mr. Durfee took another nest of this species, containing four fresh eggs. He found them on June 16, 1889, in Wayne County, Michigan, and shot the ♀ parent bird, so there can be no question as to the identification. The nest, eggs, and ♀ skin are now before me and may be thus described:

Nest in maple tree, fifty feet from the ground, and ten feet from the trunk of the tree. Saddled on limb of fork. Cup-shaped, and composed of plant fibres and strips of fine bark; lined with grape-vine bark. Outside depth, 1.30; outside diameter, 2.45; inside depth, 1.20; inside diameter, 1.70. ♀ shot and skin with nest and eggs. Four eggs, fresh. Greenish-white, spotted with russet and burnt umber, chiefly near the larger ends: .65 x .51; .66 x .52; .64 x .51; .66 x .51. — J. P. N.]

An Egg Hunt in the Rain.

Did you ever hunt birds' eggs under an umbrella? Well, I have, and a glorious time of it I did have, too. On March 24th of the present year I took a ramble among the large trees and tangle, bordering one of our large streams, with the hopes of finding a few eggs of some of our Raptore, as it was then the height of their nesting time.

It was one o'clock in the afternoon when I started, and such a miserable tramp as I had cannot be described. Up and down hill, through brush and tangle, over logs and through bogs, sometimes knee deep, and again trying to walk a wire fence. I am not as high up in the art of walking wire fences as I should be, and so had to take the roadside.

At last, after an hour of hard walking, I reached an old grove of about three hundred acres of heavy timber, and then commenced the "tug of war." With my field glasses turned in an upward direction, with the rain pelting me in the face, I wandered along. Nothing greeted my ears except the continued pattering of the rain, and howling winds, and occasionally the flapping of the Black Vulture's (*Cathartes atrata*) wings, a peculiar habit of theirs during a rain storm to beat or shake the water from their body. But for all this I was well rewarded, for very soon my glasses fell upon a large bulky object in an oak not far distant. So away I went in this direction to find a nest of what I supposed to be that of a hawk, so strapping my climbers on (which took but a few seconds) I commenced the ascent; and but a few strokes had I made when the female flew from the nest, which I recognized to be that of the Florida Red-shouldered Hawk (*Buteo lineatus allenii*). After climbing about sixty feet I reached the nest, and to my pleasure found a beautiful clutch of three eggs, and after carefully packing them in my knapsack I descended to the ground. Upon blowing these I found them to be perfectly fresh, although I think this the full clutch, as the bird had commenced incubation.

After rearranging the eggs I commenced again my weary tramp, and very soon came upon another tree containing a nest of the Common Crow (*Corvus frugivorus*), which contained five very handsomely marked eggs, which I also took. This nest was about twelve feet up.

Around this tree the underbrush was very thick, and the vines and briars grow in pro-

fusion. In climbing the tree for the Crow's nest so much noise was made that a Black Vulture was frightened from her nest, and so here I was the finder of two eggs of this species. The nest, as you might call it, was flat upon the ground in a small opening among the briars; here upon a few twigs and leaves were deposited the two light green tinted eggs, with their heavily marked blotches of brown and umber. The excrement of the bird was upon every side, and the odor which came from it was not as that of the violets which grew but a few yards distant. These eggs were very fresh, although the birds had commenced incubation.

Near this same place a week before I had taken four eggs of the American Barn Owl (*Aluco flammatus americanus*) from a hollow stump about twelve feet up, so thinking I might possibly find as many more I stopped to give them an afternoon call. Upon reaching the tree I gave it a loud rap with my climbers, and immediately both birds flew out upon the nearest tree, and after giving me a wink and nod they flew away into the dark woods. I again climbed to the top, and to my surprise and pleasure found three more eggs, which I consider the balance of the clutch.

This stump had been a large hollow tree, but had been broken off about twenty feet up, and the eggs were placed at the bottom of the hollow, about eight feet from the opening. To secure these eggs I let myself down in the tree feet first, but had much difficulty in reaching them with my hands, but at last succeeded.

Were you ever in a hollow? How the wind did howl as it passed above the opening, and you could hear the rain patter upon the tree trunk; I imagine it must have been a very cozy home for these owls. The bottom of the hollow was lined with fur of the Rabbit, and a number of curious pellets adorned the outside of the nest. As the rain continued to pour, and as everything was so very disagreeable, I thought the best thing I could do was to turn my face homeward. So I did. I had gone about a mile, and while passing through a small grove I came upon another nest of the Florida Red-shouldered Hawk (*Buteo lineatus allenii*) which also contained three eggs, all fresh. The nest was placed in a pecan tree about forty-five feet up, and was lined with green leaves of the elm and mistletoe. The male hawk fought desperately while I climbed the tree, but flew off and joined the female as soon as I reached the nest. After safely

reaching *terra firma* I again started homeward and reached it bespattered with mud and with serated hands and face. But I considered myself well repaid for my work if I did have to hunt them under an umbrella.

Edwin C. Davis.

Gainesville, Texas.

The White-throated Warbler at Saybrook, Conn.

Twelve years ago I indulged in great satisfaction over the capture of my first specimen of *Helminthophaga leucobronchialis*, at that time regarded as an exceedingly rare species, but during the last few years other collectors have obtained and taken so many specimens that its capture is now scarcely considered deserving of note, yet the securing of another specimen, and hearing its song many times repeated, drew my attention to the fact that I had not read anything relating to its notes.

This was early in the season (May 8th, 1889). I was taking a walk into the woods for the purpose of observing and noting the new arrivals, when my ear caught the notes of a *Helminthophaga pinus*. Of course I should have recorded it had not the bird at that same moment perched on a twig close at hand and in full view. Although I observed that the note had less of the whispered lisp of *pinus*, and more of the vocal of *chrysopera*, yet the variation was of such a character that in itself it would scarcely have attracted my attention, but once noticing I readily perceived the distinction, and saw that it was a perfect imitation of the first part of the song of *chrysopera* without the concluding chatter that invariably terminates that of the latter species.

My bird was (unlike my former experience) very shy, after having inspected me once to his satisfaction close at hand, and too near to be made a specimen of, and for three hours I followed the elusive notes back and forth through the forest with all the caution and strategy of which I was master before success rewarded my labors. This specimen exactly resembled my former capture, and it seems to me the distinction is altogether too marked and permanent to render tenable the recently advocated theory accepted by some of hybridization. But I have found in ornithological matters it is so easy to be mistaken that I only venture to express my doubts by a very small interrogation point.

John N. Clark.

Saybrook, Conn.

A Series of Eggs of the American Woodcock.

The eggs of the American Woodcock (*Philohela minor*) are almost always four in number, and are laid on a few leaves on the ground. They are rounded ovate or short ovate in form, although occasionally a set is found that are ovate. The ground color is subject to considerable variation as well as the markings.

Set I. June 3, 1875. Ledyard, New London County, Connecticut. Collected by "J. M. W." (C. L. Rawson). Eggs on old leaves, among white birches, on ground sloping toward swamp. Female feigned lameness, almost touched. Pointed by dog. Male near. Four eggs, incubation begun. Eru drab, spotted with fawn color and lavender-gray: 1.49 x 1.21; 1.44 x 1.19; 1.50 x 1.21; 1.49 x 1.19.

Set II. March 29, 1889. Wake County, North Carolina. Collected by H. H. & C. S. Brimley. Nest, a mere depression in dead leaves in mixed woods, on hillside sloping to creek, just above flood mark. Bird on nest. Four eggs, incubation far advanced. Buffy, spotted with russet and fawn color: 1.60 x 1.09; 1.58 x 1.09; 1.51 x 1.07; 1.50 x 1.09.

Set III. April 15, 1883. Preston, New London County, Connecticut. Collected by "J. M. W." (C. L. Rawson). Eggs on ground, among white birches. Nest pointed by dog, although he may have been pointing the male bird, which was within a few feet of the nest when first seen. Four eggs, incubation begun. Eru drab, spotted with cinnamon and lilac-gray: 1.53 x 1.14; 1.47 x 1.19; 1.50 x 1.16; 1.49 x 1.17.

Set IV. April, 1885. Kennett Square, Pennsylvania. Collected for H. H. Gawthrop. Eggs on ground. Three eggs; fawn color, spotted with russet and lilac-gray: 1.57 x 1.17; 1.52 x 1.14; 1.51 x 1.14.

Set V. April 21, 1875. Ledyard, New London County, Connecticut. Collected by "J. M. W." (C. L. Rawson). Eggs on leaves on ground, on slope wooded with white birches, sloping toward water. Pointed by dog. Four eggs. Fawn color, spotted with russet and drab: 1.53 x 1.23; 1.49 x 1.22; 1.60 x 1.21; 1.53 x 1.22.

Set VI. April 26, 1886. Rockland, Maine. Four eggs, fresh. Fawn color, spotted with russet and lilac-gray: 1.50 x 1.24; 1.48 x 1.19; 1.52 x 1.22; 1.46 x 1.17.

J. P. N.

The American Bittern, Botaurus lentiginosus (Montag).

This bird of many names is well known to all collectors in the state. It is to be doubted if anyone interested in ornithology within our borders is unacquainted with this uncouth species, unless he lives in a high and dry locality. There are some quarters where the Thunder Pumper, Indian Hen, Plum Pudden, Stake Driver or Bog Trotter is not to be found on account of the nature of the surface of the land. There are many square miles of pine land where they are never seen, but this depends more on the lack of marshy tracts than on the presence of standing pine, as is plainly proven by the appearance of these singular birds in small swamp holes in the vast forests of pines found in our state.

The Indian Hen arrives certain seasons before the middle of March, but as a rule is not found before late in March or early April, and is occasionally not seen before April 10th.

The nesting does not engage the Plum Pudden's attention until late in April, although the singular vocal expressions of tender regard uttered by the male for his future partner's edification are heard much earlier. These notes are as remarkable for singularity as are the peculiarities of movements made by the songster, if I may so term him, while uttering the odd noises. The notes are of three kinds, two loud sounding series of sounds, and one low, guttural utterance, seldom heard unless one is near the bird at the time of its issuance. It has been the writer's privilege to hear these low, guttural sounds but twice, and the circumstances were such as to indicate that they were the regular call notes. The love song is singular in the extreme, and when once heard is never to be forgotten. It is performed and uttered, for the movements in uttering the noises are as singular as the notes, invariably when the bird is standing in the marsh. The sounds so nearly resemble the words *plum pudden* that the bird has received this name. These syllables are repeated from four to eight times, generally six or seven times. The accent is on *pud*, the final syllable *den* being less distinct than the other. The sounds coming from the marsh are mysterious, and seem almost unearthly. Not like the notes of any other bird of Michigan, they are easily learned, and once heard are never to be forgotten. The other name

of Stake Driver is also earned for its peculiar, well defined notes, *ka whack, ka whack*, uttered like the others in a most methodical and apparently strained manner. The bird, I believe only the male, when uttering either of its peculiar songs has a most remarkable series of movements to go through, which are ludicrous in the extreme to the observer, though seriously, and I doubt not pompously, performed by *botaurus* in his efforts at propitiating his loved one, or later, in acknowledging his success as a benedictine boss of the marsh.

As one is walking through the long dead marsh grass near the edge of the lake the peculiar sounds are heard apparently issuing from beneath one's feet, and the stroller stops and tries to locate the noise. The chances are against discovery of the exact spot, but if the bird is seen the peculiar movements are watched with interest. Either of the songs are emitted with the same apparent difficulty.

The bird, stopping his wading about in search of food and drawing himself up in a bunch, begins a weird cry by stretching out his neck in wave-like motions much reminding the observer of the contortions gone through with by a barn-yard fowl in its efforts to swallow a Tid-bit too large for its gullet.

The nest of this species, of which I have never found but one, is placed on an elevation in the marsh, and is generally surrounded by water. It is composed of dry grass and rushes, and is generally damp and soggy. The eggs, four in number, are of a bright coffee color, and of the size of a bantam's, or a little larger. The young are at first covered with down, and are most remarkable looking creatures, with big heads and a coating of yellowish or buff, fluffy down.

To me the Bittern's peculiar cry is most pleasing, and heard as it usually is, out on the marsh and in lonely haunts, the notes are doubly pleasing from their weird associations. I remember well the lines of Scott in his imitable Lady of the Lake, where he refers to this uncanny bird,

"Well rest thee; for the bittern's cry
Sings us the lake's wild lullaby."

It may be that the agreeable study of this pleasing poem when a child gave rise to lasting associations and memories. I have learned since that the Bittern of Scotland is, however, entirely different from our apparently stupid Indian Hen, but this cannot alter my memorizing by rhyme, or change

pleasing memories; for every bird has, to me, loving associations, and agreeable thoughts are ever generated if I will but allow my mind to wander to the grove, marsh, lake or river.

Scolopax.

Kalamzoo, Mich.

Nesting of the Tree Sparrow.

On May 23, 1889, it was my good fortune while collecting on the Beaver meadow to discover a pair of Tree Sparrows (*Spizella monticola*) in a small clump of bushes, one of which I thought by the actions of the bird was at the time setting somewhere on the meadow, so I prepared to await and see her go back on the nest. I had not long to wait, for in about ten minutes she flew to another clump of bushes and disappeared in them. I waited a short time, and as she did not come out again I went forward, and upon shaking the bush where I last saw her, she flew out in a hurry so badly hurt that she fell in the grass when about twelve feet from the bush. I knew, however, I had found her nest, so I parted the bushes and there about a foot below the top of them and two feet from the water which covers most of the meadow, saddled in a crotch, and partly concealed by the over-hanging swale grass which grows up through and breaks down on to the bushes every year, was the nest with five eggs in it. Turning around I shot the female bird from a bush where she had taken her stand, and was then making her demonstrations. Therefore the identification is positive.

The nest, which is before me, is made entirely of dry grass, the outside of which I should think was made of timothy and the lining or inside made of June grass. All of the nest is made of the round stems of the grass and there are but two flat blades in the nest.

The eggs, five in number, are of a light green color, and are flecked and blotched with reddish-brown, varying in size from dots to one blotch of .15 x .25 of an inch, also several short scratches of seal brown similar to the scratchy lines on a Baltimore Oriole's egg appear on each egg. The set measures as follows: .75 x .60, .72 x .58, .73 x .57, .73 x .56, .74 x .54.

The above set I believe to be the only one ever found in this part of the state.

E. G. Tabor.

Meridian, N. Y.

A Trip to Buzzard Island.

While on a visit to the neighboring city of Beaufort, recently, I fell in with a congenial companion and we laid our plans to visit Buzzard Island. Next day it rained, ditto the next, and still more ditto the day after. But about two o'clock on Saturday morning I took a squint at the weather and boldly announced a star. We waited impatiently for daylight, which seemed to be about a week in getting round, but at last the sun got up as usual and we made haste down to the ferry.

Across on Ladies Island, we began thoroughly to enjoy ourselves. Towhees were interviewed to see if the Florida sub-species had got around yet, but he was not so green as to come ahead of time. A Hermit Thrush tried to trill his little lay, but failed miserably before he was half through and the theme was taken up by a Mockingbird who worked it up after his own fashion into a sweet melody. Farther on in the thick hedges the Cardinals were giving a full concert, and as we get into the woods the Bluejays announced an approach to all whom it might concern. Here were songsters *galore*. Pine Creepers answered each other from side to side, every maple and gum tree seemed to have its Blue Yellow-back and in sunny little spots the Bachman's Finch chanted his dainty little roundelay. Ah! it was a glorious morning.

This locality was one of my favorite "stamping grounds" in days gone by and it did seem as if the self-same birds were there yet.

But the illusion did not last. Beyond the woods all was changed. Where was once a wide cottonfield with lots of splendid little snipe ponds I found quite a village of farm houses and the dusky matron who welcomed us at the door of the largest of these I recognized as the pet little girl of the primer class twenty and odd years ago. These sort of incidents make me know that I am getting old. I shall feel it in my bones next thing, I am afraid. But we shall never get to Buzzard Island if I stop to moralize.

We despatched a boy for a boat, and while waiting for it, tried to circumvent a Kingfisher who, however, seemed to be pretty well acquainted with the range of guns. Not so with the Curlews and Herring Gulls. They seemed to think a gun could carry about a mile.

When at last we did get to our destination the only bird in sight was a Great Blue Heron. Unhappily for himself he stayed in sight too long. We had not proceeded far on *terra*

firma before the Buzzards began to flap up from the ground and gaze at us curiously from the surrounding trees. One I thought I had marked carefully as it rose, and I made a bee line for the spot. A careful search failed, however, to disclose any oological treasures and I was about to give it up when I noticed a peculiar trodden appearance of the ground on the other side of the patch of Yucca that I was exploring. A further examination showed a hole in the ground and in it sleeping easily a young otter. Such a jolly little fellow he was, and my companion was fairly overjoyed at his capture. After examining him thoroughly he put him to sleep in his hat and we continued our investigations. It seemed, however, that the Vultures had not begun to lay. Many of them were about and all as usual of the black species. March is rather too early for them though I have known a set of eggs taken as early as the tenth of February.

Our otter slept peacefully all the way home and at last accounts was well and flourishing and had got his eyes open. *Walter Hoxie.*

Destruction of Birds by Cold.

The past three weeks have been very wet and cold, with frost three times and snow once.

May 31, in the morning, there was about two inches of snow, and still snowing, and changed to cold rain about 10 o'clock and rained all day. Saturday morning cold and cloudy, and the thermometer very near the freezing point.

At a friend's place where I go fishing, etc., there were about one hundred pairs of Martins and Tree Swallows breeding, and on Saturday morning they were nearly all dead; the children showed me many of them. My friend says he took seven dead Martins in one box, nine under another. Other boxes, not easy to get at, were full of dead ones, and they could be seen partly out of the holes. He told me that at a railroad bridge, near Chester, he could have picked up a *bushel* basket of dead Cliff Swallows.

He goes after his mail in a boat about three miles, and on that morning he saw two Least Bitterns dead by their nests, picked up young ducks so cold they could not swim, which died in the boat before he got home.

The children brought me a Least Bittern that they found sitting on a boat so cold it could not fly, which they warmed and fed. It was too soiled for skinning so I let it go; it ran off to the marsh.

May 24, I got two Hudsonian Godwits here, and saw a White Pelican.

June 7, I got a Black Tern that is white under around the neck and from the bill to nearly even with the eyes. The back and top of the head the usual color of the back. There is no other Tern that will answer that description, is there?

That makes the eighth specimen that is white and partly white, all collected by myself or for me, I have in my collection.

Delos Hatch.

Oak Centre, Wis.

Observations on the Grasshopper Sparrow in Hale County, Alabama.

Hale County lies between Tuscaloosa County on the north and Marengo county on the south; its western boundary is the Warrior River, its eastern, Perry County. The Grasshopper Sparrow (*Ammodramus savannarum passerinus*) is found only in the "Canebrake" or "Black Belt" of Hale County. On its northern migratory path it probably finds there suitable breeding grounds; and that may account for its presence in summer in that part of the county, while it is never seen at all, to my knowledge, in the less fertile, piney and sandy portion of the north of the county.

It winters farther south, and makes its appearance in this locality about the first of May, when it begins to breed. A nest of this species found by me on the 11th of this month (May) contained five eggs slightly incubated; it was in a depression in the ground, lined with grass, and was arched or domed on the top. The eggs were white and spotted with reddish-brown, mostly on the larger end, and not differing from the description given of the eggs of the Grasshopper Sparrow breeding farther north.

The specimens of this sparrow collected by me in this county in the spring and summer have never been streaked, and other measurements correspond with the measurements of this species given by Ridgway in his "Manual."

As Mr. Maynard states, a southern Grasshopper Sparrow may exist, but, if so, it must be farther south than this latitude, which is about the 33d degree north.

Wm. C. Avery.

A Swallow-tailed Kite at Saybrook, Conn.

Sitting at my window engaged in reading one pleasant Sunday afternoon in June last, (the 16th), my attention was called by a member of my family to a curious Hawk that was passing over; leisurely turning my attention from my printed book to the "Book of Nature"—for the gyrations of a Hawk, Red-tailed or Cooper, were no unusual spectacle—I was startled from my serenity at beholding something new to my vision, and in an incredibly brief space of time was out gazing with wondering eyes at the graceful evolutions of a Swallow-tailed Kite (*Elanoides forficatus*).

I had read of this species "North to Southern New England," but had viewed that verdict very questionable, as twenty years' close observation had failed to confirm it, but in an instant all my doubts were swept away, for right before my eyes in plain view and near at hand was an unmistakable specimen gracefully soaring in slowly receding circles; his long pointed, narrow wings, fully expanded tail with the outer feathers of great length, pure white under parts in contrast with the dark upper, presented distinctions so marked from all other native species that recognition was instantaneous and unmistakable.

It was with covetous eyes that I stood and watched as he slowly receded from view toward the north, circling round and round with scarcely a motion of his wings, and drifting away with the gentle south wind. It sometimes takes years to form theories, but a moment suffices to sweep them away.

John N. Clark.

Saybrook, Conn.

Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

The Council having disapproved of the re-appointment, by Gov. Ames, of Mr. E. A. Brackett as a Commissioner of Fish and Game for this state, we are pleased to learn that a petition has been put in circulation praying for the appointment of Mr. W. W. Castle of Wellesley, to fill the vacancy.

This is a step in the right direction. The manifest inefficiency of the commission, in the past, has been fully set forth in our columns, and is clearly apparent to every thinking citizen of this Commonwealth, and it is gratifying

to see that some one has awoken to the fact that it is a matter of advisability, at least, to have one member of the commission who knows something about the subject, and this necessity will be well provided for in the appointment of Mr. Castle, who is an ornithologist of much merit, and a naturalist in every sense of the word.

We sincerely hope that His Excellency will at least open his ear to the voice of the petitioners, and put a stop to the juvenile pettifogging tactics of this most important branch of our government.

Mr. Castle has had much experience in the workings of the game laws in Maine and Ohio, and ably defended the rights of the ornithologists at the hearings at the State House in 1886, when he was beset by the dude sportsman, the marketman and the milliner in a manner that was enough to upset the equanimity of a man with weaker nerves, or a less righteous cause, and the way in which Mr. Castle held his own, against the attacks of the combined forces, was sufficient to show that he understood the subject, and would stand up for the right and not allow himself to be bully-ragged into a state of infantile inactivity, the sole work accomplished by the late board being an observation on a few mummy-chogs and sneakers, and the seizure of a few short lobsters, which the officers managed to squeeze under the limit of the law by about 1-16 of an inch, with rules whose accuracy would not stand the inspection of the courts.

The abortive attempt of a spotter, working under the Massachusetts Fish and Game Commissioners, to make a case against a taxidermist for having a stuffed bird in his possession, under the shadow of Plymouth Rock, was quite novel for its freshness and is in true keeping with the pronounced intentions of the Commissioners. Had the case been pushed, the result might have been quite entertaining, and to others than the ornithologists. If all who have stuffed birds in their possession should be summoned, we think there would be quite a procession? Every ornithologist in the state should use his personal influence to see the present Commissioners deposed, and gentlemen who are capable of acting intelligently and with fairness appointed. Let it be paramount in the minds of all that Brackett, Putnam, and Lathrop are not wanted, and let political action be shaped accordingly.

Another instance has come to our attention of the arbitrary manner in which Commission-

er Lathrop continues to act. A gentleman who has previously held a collecting permit in this state, and also one in a neighboring one, made application. After going through a peculiar red tape ceremony which included the receiving of a *refusal addressed to some other unfortunate*, he was informed that a permit *could not be granted because he was not studying ornithology scientifically!* We are personally acquainted with the applicant and consider such a decision as unworthy a state officer. We think it would be better to be honest and have stated that permits were only to be granted to a few special favorites.

To propose to make it a punishable offence to harbor the English Sparrow is nonsense. The majority of the people will do as they please about it on their own premises. If deemed advisable, it is all very well to exterminate them (if you can), but no interference with the public is wanted.

The following communication comes to hand just before going to press:

OFFICE OF H. M. FIELD,
Brownsville, Tex., July 24, 1889.

Dear Sir: I deeply regret to announce the death of my junior partner, Mr. E. C. Greenwood, which occurred on July 21, 1889.

The business which has been conducted by the firm will be continued by the surviving partner, in all respects as heretofore. Yours respectfully,

H. M. FIELD.

Emery C. Greenwood has passed away. He was born in Ipswich, Mass., where he early acquired a taste for the study of ornithology. He was an industrious and persistent collector, and had considerable experience, not only in the north, but also in Florida. As a collector of water birds and waders, his equal is rarely met with, as he had long given these birds careful attention. At the time of his death he was established in Texas as junior member of the firm of Field & Greenwood, dealers in specimens of Natural History.

Brief Notes.

It is a much debated question whether a moose, while in the act of listening, pricks up his ears like a horse, or throws them forward like a cow? Answers are requested.

Andrew Downs still has the Purple Gallinule that was taken at Halifax, Nova Scotia, April, 1889. He keeps it in his aviary with his other birds. It is healthy and feeds on bread and milk. Harry Piers.

A Rattlesnake over three feet long and indulging in eight rattles, died from heart failure at the Blue Hills,

near Hyde Park, Mass., July 26. They are by no means common, just enough of them to keep up a reputation.

H. R. Taylor calls our attention to the fact that 289e will not do for the proposed California Bob-white, that being the number of the Cuban. Well, let's have it 289, and that will give all the other states an "intermediate" chance.

Shot a Black-crowned Night Heron on July 4th, at Cold Harbor, Halifax. It was in full plumage. H. Austen.

Clark P. Streator was at Ashcroft, British Columbia, July 15. From his report he has been quite successful.

Several of our old subscribers are anxious to obtain the early volumes of the O. & O., 1 to 6. If any of our readers have any to dispose of, or even odd numbers, we would like to have a list of such.

Great Blue Herons can be seen every morning winging their way to the Bay shores, from the Great Rookery of Day Creek Canyon. A famous sight as I ever looked upon through the camera is one grand old sycamore of snowy whiteness, in which are twenty-two nests. Squilis, Cal., April 9.

Frank S. Daggett writes that there is a large colony of American Herring Gulls at Isle Royal, Lake Superior. A few more are reported at Apostle Island, also at Red Rock, on the north shore. It was his intention of visiting those places in June.

During the first week in June, W. H. Lueas, at West Stratford, Conn., found the nest and four eggs of the Blue-winged Warbler; leaving it for two days to see if the set was complete, all the eggs but one had disappeared. The egg measured .69 x .48. White, with large brown and lilac spots.

For many years, in Massachusetts, there has been shown a commendable desire to protect our birds. This has been done largely with the idea that they were beneficial to the husbandman, but more largely, it appears to me, from a purely sentimental point of view, as it is to-day a mooted point among ornithologists as to whether certain birds, now protected by law, are really beneficial after all. For example, is the common robin entitled to the absolute protection that the law affords it? Would it not be better to treat it as a game bird with a close season a part of the year? In my mind the whole matter requires investigation by experts, for the instruction of the legislature.—[Contributions to Science.]

[If the truth was known it would be found that there are a mighty few sportsmen in this state that cannot discuss understandingly "How Robins Taste."—Ed.]

At latest accounts (July 26), Mr. J. C. Cahoon, who is collecting in Newfoundland, had accomplished the hitherto unknown feat of climbing Bird Rock, at Cape St. Mary's, a perpendicular cliff of 300 feet, and probably sat upon the edge, dangling his feet and complacently grinning at the discomfited Chat-hamers.

Clippings.

A CAPTURE.—The undersigned, in his weekly drive to Brackley Point, was recently informed by Mr. William McCallum, postmaster of that settlement, that a large eagle had been seen hovering around his neighborhood almost daily. Mr. McCallum had lost a sheep, the carrion had been taken to a back field, and to it the

eagle had been diurnally paying a visit. As soon as the last fact was duly ascertained, Mr. McCallum's two sons—Leopold, aged 14 years, and Neil, aged 10,—said they would "capture that fellow if possible." On an evening of last week they set a fox trap 100 years old, which had belonged to their great grandfather. Early next morning the two young braves with rapid strides repaired to the spot where the bait was situated, when, lo! to their great joy and admiration his imperial eagle-ship was there held a prisoner by the claw. Released at once from the trap by boy No. 1, who carried him home under his arm, the noble bird so attempted to capture the boy that large quantities were torn from his coat before the youth could be liberated from the iron grasp of the terrible talons of the imperial prisoner. A strong cage was soon constructed, in which his high mightiness can be seen at any time. His length from tip to tip of his wings is six feet six inches.—[Gnar. Daily Patriot, Charlottetown, P.E.I.

Fashion and Taste.

As exemplified in a conversation betwixt Mrs. Meek and her daughter, Mary, relating to the uncivilized mode of decorating ladies' headgear, with the feathered skins of humming birds, scarlet tanagers, paroquets, red-winged blackbirds, Baltimore orioles, and other members of the feathered tribe, as lately in fashion, versified and dedicated to the Society for the Prevention of Cruelty to Birds.

BY PETTER PEPPERCORN.

Bob-o-link, bob-o-link,
What do you think? —*Anon.*

"My daughter, dear," said Mrs. Meek,
"It's wrong you may depend upon it,
To slaughter little harmless birds
And with their skins adorn a bonnet.

"It's fashionable now, I know,
To decorate with skin and feather;
But what is fashion at the best?
As changeable as April weather.

"It somehow seems to me as if
All Christian feeling had departed,
And makes me nervous, Mary, dear,
Oh, why am I so tender-hearted?

"But you have bought a bob-o-link,*
I could to him indite a sonnet,
Although I think it out of place
To see him perched upon a bonnet.

"It's bad enough to keep confined
Within a cage, the little creature;
But stuffed and impaled upon a hat
Is cruelty in every feature.

"What! kill my favorite bird to get
His head and tail, his wing and feather?
I wish such wanton sacrifice
Could be abolished altogether.

"It is against all rule of art,
And sinful, I feel sure of that;
And I shall sigh and wish for fall
To see him perched upon your hat."

"Oh, ma," said Mary, "if that's so,
On my headgear, I don't desire him;
But, mother, dear, please tell to me
In what condition you admire him?"

* *Dolichonyx oryzivorus*, better known as reed bird, rice bird, Bob Lincoln, bob-o-link, bunting and other local names.

"My darling," Mrs. Meek replied,
"Some years ago, and in September,
Your father (now an angel) bought
The bird I ever shall remember.

"I know not where he got it from,
But at some restaurant, I think;
And ever since that time I've had
A liking for the bob-o-link.

"I love him in his native wilds,
When spring is opening up before him.
I love him, too, in summer time,
And in the autumn I adore him.

"His note is sweeter then to me
Than love song of a caged canary.
And how delicious broiled on toast.
Oh! that is how I love him, Mary."

Wade's Truths of Nature.

New Publications.

The O. & O. Semi-Annual, W. H. Foote, publisher, Pittsfield, Mass. Vol. 1, No. 2, July. This, the second number, fulfills the publisher's promise in regard to its standard. We note with pleasure that his enterprise bids fair to be a success.

From J. M. Rusk, Secretary of Agriculture, Bulletin No. 1, *The English Sparrow in North America*, especially in its relation to agriculture. Prepared under the direction of Dr. C. Hart Merriam, ornithologist, by Walter B. Barrows, assistant ornithologist. It contains an account of the introduction, increase, its relation to other birds, together with accumulated evidence from all sections of the country. It presents the subject of what shall be done in a manner that will certainly arouse public attention.

We are in receipt of the third edition of Davie's *Nests and Eggs of North American Birds*. This book has steadily advanced from a simple descriptive egg check list, in which form its first edition appeared, to a valuable standard work of 455 pages, well illustrated by 13 full page plates of typical nests. It is very gratifying to see how much can be accomplished without recourse to any but the private collections of our naturalists. Mr. Davie has had exceptional facilities for this work, inasmuch as he has a large collection of his own, and has had the assistance and the free use of the collection of Mr. J. Parker Norris of Philadelphia, who has one of, if not the largest, private collection of eggs in the country, and that he has made good use of his advantages is apparent on every page.

Correspondence.

Editor O. & O.:

I believe that it may be worth recording that on July 1st I took, at Truro, a Mockingbird (*Mimus polyglottus*), a male, I infer from his persistent singing.

I first observed him Sunday, June 30, and watched him all the afternoon to see if there was a pair of them. The locality is intervalle with a few elms and several small clumps of bushes, so I had every chance to discover another if it was there. Being convinced that he was alone I started to bag him at 4 o'clock A.M., next morning; could hear him before I reached the intervalle, and in a few minutes shot him from the top of a tall elm. He came down and I found that I had knocked about quarter of an inch off of his upper mandible, and with this exception he was apparently un-hurt.

Of course my first thought was that it was possibly an escaped cage bird, but a moments examination showed that the idea was unfounded, as his plumage was perfect, wings and tail unchafed, and feet and claws clean and unmarked by the perch as cage birds always are.

I see by "Cones' Key" and "Birds of New England" that this capture places the Mockingbird further north than any recorded.

I could not kill him when I found how little hurt he was, but put him in a cage where he is at present, and seems likely to live and become reconciled to his new quarters.

Same morning I took a ♀ Black-billed Cuckoo, which is rare here (in localities where I collect at any rate.)

Can you tell me if a Raven ever has a white or yellow bill? The only live Raven that I got close enough to examine apparently had an ivory-colored bill. It might possibly be coated with something it was eating, but seemed to be the color of the bill.

Chas. A. McLennan.

Truro, Nova Scotia, July 8, 1889.

Editor O. & O.:

Those sprightly little fellows popularly known as "tip ups" are usually well able to care for themselves, but years ago before the O. & O. began its valuable record of bird notes I witnessed the death of one in a manner which I have not since seen recorded.

Along the marshy bank of a river where small pieces of drift wood had collected and settled in the soft sand, forming a resting

place for turtles and a choice picking ground for Sandpipers, I was attracted by a fluttering of white feathers, which proved to be a Least Sandpiper struggling on the surface of an inch or so of water which covered the mud. Thinking it simply a wounded bird I reached for it but found it firmly held in some unseen trap which prompted further investigation. A stick pried into the soft mud gradually brought to the surface a medium sized "mud" turtle with the leg of the bird firmly grasped in its mouth, and it took the blade of a knife to induce him to release his grip. The bird was badly injured and died soon after being released.

Frank S. Daggett.

Duluth, Minn.

Editor O. & O.:

From time to time, I have noticed in your valuable journal articles soliciting contributions from "young" ornithologists. The article in the May number by Harry R. Taylor, on "Songs in the Night," recalled to mind a few observations in my own experience. The Chipping Sparrow is, I think, the most indifferent as to the proper time for singing of any bird I know. At about the noon hour when the excessive heat and sultriness of our summer days causes a general silence throughout the bird-world, it is quite a common occurrence to hear the Chipping Sparrow break forth into his monotonous strain as though he desired notoriety. Then, also, many a time during a heavy rainstorm I have heard him sing from the sheltered retreat of some shady tree as though he considered the shower no great set-back to his cheerfulness. I have also heard the self-same monotonous ditty repeated in the "dead hours of night" often-times; and I think that if there is any bird that sings at odd times, anytime, and all the time, it is the Chipping Sparrow. But the most amusing of all to me is a certain performance of the Least Flycatcher which I have noticed several times at "dead of night" as I did a few nights since. It was about 11 P.M. and I was walking up a shaded street on my way home. It was very dark and not a sound was to be heard save my own footfalls. Suddenly from the top of a tree overhead came a quick, emphatic "che-beek." The tone of it was such as to express a sudden awakening from profound sleep,—a tone which might easily be imagined to express, "Oh, dear! what made you wake me up?" I have heard this same utterance several times. It is the usual day-time note, with a tone of surprise and

sleepiness added, which renders it very amusing. I think we ornithologists, as a rule, ought to tread lightly at night for there is no knowing whose slumbers we may disturb. As to incessant singing, I think the Yellow Warbler deserves the laurels. All day long, or nearly so, it keeps up its pleasing tune at the rate on an average of six vocal performances every minute. I have had opportunity lately to notice the singing of an individual Yellow Warbler and I find that every ten seconds, on an average, he rolls out his ditty; and he keeps it up throughout the day. Now let us figure on this. Supposing he begins at 6 A.M. (and I have known him to begin at 4 o'clock) and sings until 7 P.M. We will allow him one hour for breakfast and the same time for dinner and supper and we will also give him a generous allowance of an hour's resting spell in the middle of the afternoon. (But let me say here that I have known him to sing at all his meals and never knew him to take a mid-afternoon rest.) But with these generous allowances, what is the result? Why, during the lapse of one short day he has sung us 3,240 little songs. They all are the same to be sure, but none the less pleasing for all that. The study of the notes of birds is a most pleasing and instructive one to me.

Neil F. Posson.

Medina, N.Y.

Editor of O. & O.:

I offer the following article for publication in your paper, thinking it may be of interest to your readers:

On June 1st, I paid a visit to a colony of Purple Martins for the purpose of obtaining specimens of the birds and eggs. This colony occupies a bird house on the roof of one of our furniture factories, and the birds subsist on the insects which they catch over the river near by. I was surprised to find several dead birds in the house. I secured four specimens, which upon being skinned showed evidences of starvation. The muscles were very much wasted, especially the pectorals, leaving the breast bone projecting like a knife. The stomachs were entirely empty excepting one bird in whose stomach was a slimy residue, apparently the undigested legs and hard parts of insects.

The next day, chancing to go into the country a short distance from the city, I was accosted by a farmer who gave me a Nighthawk which he had found that morning in his field to weak too fly, and apparently dying. He took it to the house and gave it a little warm milk which seemed to revive it, but it soon

died. Examining it I found it in a condition even worse than that of the Martin's. Its stomach was entirely empty, and its body was wasted worse than I had ever before seen. The bird was full-grown, measuring sixty-one centimeters in expanse or about twenty-four inches, and its reduced condition could have been due only to starvation. The same gentleman told me that on the day before on letting down some bars, one bar fell upon and crushed another Nighthawk which lay on the ground near by, too much exhausted to move out of the way. Going through another field on the same day he discovered another Nighthawk on the ground before him also too weak to rise. This was taken to the house but soon died, doubtless like the others, from starvation and exhaustion. I was afterward informed by Mr. E. L. Moseley of Grand Rapids, that about this time a Nighthawk was also brought to him in an exhausted and dying condition. This measured fifty-seven centimeters in expanse, and weighed but fifty-two grammes, or about an ounce and three-quarters Av. Its stomach was empty, and it died soon after.

On the day following, being still in the country, I took a little time for observation, and was surprised to see dozens of Nighthawks flying about during the entire day, though the sky had cleared, and the sun was shining brightly. They all flew near the ground and appeared to be in an exhausted condition, alighting frequently on fences or on the ground. One flew close to me and perched on a fence. Moving toward it it flew up but alighted again three or four rods away. Again moving toward it, it again arose and again rested, which performance was repeated three or four times, when it flew across a swamp.

Now there is doubtless a cause for all this, and I think it can be justly charged to the weather. The unusual rains of May, extending into June, no doubt freed the air of most of the insects upon which these birds subsist; and being thus deprived of their only food, starvation must necessarily ensue. More than that, birds of this class require more food than other birds to supply energy for their protracted flight, as all their food is taken on the wing. I should be pleased to hear from other collectors on this same topic. *Geo. D. Sones.*

Grand Rapids, Mich.

Editor O. & O.:

I have just returned from a twenty-two days' trip over the Sierra Madre Mountains and have just shipped my birds to England, with the

silver bullion from the mines, as far as Zaa-
tecas. For the last two months I have been
down on the Pacific coast and have made col-
lections of birds, insects, and reptiles. San
Blas is a miserable hole, nothing but gnats,
mosquitoes, fleas, sand flies, swamps, fever,
and cocoanuts; but I got through this time all
O.K. Up in the huts there is no danger from
fever, but sleeping on the wet ground is not
very pleasant. For the last two weeks we
have been passing through the country of
Lozada, the famous brigand who with ten
thousand men defied the government of Mexico,
but who was conquered by General Corona,
the governor of Jalisco, a half score of years
ago. Everywhere are the stone fortresses left
by him, but now the country is only inhabited
by "Huiehola" Indians who live by the bow
and arrow. Streams are flooded into torrents,
rendering the deep rough mountain paths
impassable, but I shall start off again in a few
days to try it again. I carry tent and provi-
sions always for a month's trip. This time I
shall work northward towards Durango and get
back to Zaa-teezas in six weeks or so. Shall
soon have sent on 2,000 bird skins beside
insects, reptiles, etc. Have heard that I al-
ready have several new species and two lots
have yet to be reported. Send me April and
July O. & O. as I can hear no news in this
country. Give my regards to all my friends that
frequent your store. Wm. B. Richardson.

Zacatecas, Mex.

Editor O. & O.:

On the 21st of June just passed, I saw what
to me was an interesting as well as a novel
sight. Just after leaving the dinner table I
noticed an adult Yellow-throated Vireo on a
clothes-line under a large maple tree; she was
calling and seemed uneasy. Suspecting what
the trouble was, I went out and found a young
Vireo just old enough to leave the nest. On
getting closer he started and flew to the base
of the tree trunk, alighting about a foot from
the ground. After looking around an instant
it commenced a series of hops diagonally back
and forth, each hop carrying him from one to
six inches higher. In this way he climbed to a
height of fifteen feet, following a nearly straight
perpendicular line. He then got on to a small
limb that lay along side of the tree trunk. During
this time the old bird was catching
insects and encouraging the young by alight-
ing over it and calling. The climber occupied
a full five minutes in the ascent, having to rest
frequently. E. T. J.

Bethel, Conn.

Editor O. & O.:

In a past number of your valuable journal
I note a most interesting article by Mr. Hoxie
on the habits of the Florida Burrowing Owl.
Mr. Hoxie here states that there are no animals
in Florida which make a suitable burrow
wherein the owls can deposit their eggs. If
he had had a wider experience in the state, he
would have become aware that there are two
animals, either of which make burrows in
which the birds can nest most admirably.
One of these, which is not, in all probability,
used by the owls, is the common rabbit (*Lepus*
sylvaticus), and the other, which is most
likely the animal that excavates the domicile
appropriated by the bird of wisdom, is the
gopher turtle. Thus, as I have remarked in
my "Birds of Eastern North America," by a
singular paradox, a mammalian gopher builds
the homes of the Western Burrowing Owl,
while in Florida, a reptilian gopher performs a
like service for them, while here in the land of
flowers a mammal bearing the decidedly rep-
tilian cognomen of salamander, views the
whole proceeding with equanimity. Now I
have never seen a nest of a Florida Burrowing
Owl, but judging from the report of Mr.
Cahoon, who has, I have formed the opinion
that the birds do not excavate for themselves.
Everywhere that I have been in the state of
Florida where the ground was out of water a
greater portion of the year the gopher turtles dig
their deep burrows, and these holes are often
used as a place of refuge by the diamond rat-
tlesnake.

C. J. Maynard.

Editor O. & O.:

I notice advertisement in July O. & O. of
Frank Wesson's collecting gun. I commenced
using one of them two years ago and they are
perfect. In fact, I have given up carrying a
large gun as I can secure as many large birds
with this. On the Isle Royale trip I used it
altogether and found it very deadly among the
large Herring Gulls. Frank S. Daggett.

Duluth, Minn.

Editor O. & O.:

I have read somewhere that patches of white
feathers on birds, where white feathers do not
naturally belong, is the result of a tape worm.
On the 15th of May, 1889, I shot a Black Snow-
bird (*Junco hyemalis*). The head and neck is
pure white, some white on the rump and a
little on the wings. I examined the intestines
under a good glass and found a tapeworm two
inches long. I mounted the specimen and
have it now in my collection. W. Bishop.

Kentville, N.S., July 28.

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—AND—

OÖLOGIST.

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No. 9.

Birds of Chester County, Pa.

[Concluded.]

165. *Dendroica palmarum* (Gmel.). Red-poll Warbler. Transient visitant; common. Arrives third week in April, and generally leaves by May 10, to reappear last week in September. Departs by October 20.

166. *Dendroica discolor* (Vieill.). Prairie Warbler. Summer resident; rare. Arrives last week in April. I have never found this species nesting. Have taken specimens as late as June 20. Mr. Doan has a nest and set of four eggs of this species, which he collected on June 16, 1885, near French Creek Falls, this county. It was placed in a wild rosebush, about three feet from the ground, and made of rose leaves, plant stems, and lined with fine roots. Eggs, averaging .67 x .48; ground color white, thinly spotted with lilac, purple and light brown. Departs by the first week in October.

167. *Seiurus aurocapillus* (Linn.). Ovenbird. Summer resident; common. Arrives first week in May. Nidification takes place by the last of that month; eggs, four to five. Departs second week in October.

168. *Seiurus noveboracensis* (Gmel.). Water Thrush. Summer resident; rare; in migration common. Arrives last week in April. Eggs, four. Departs first week in October.

169. *Seiurus motacilla* (Vieill.). Louisiana Water Thrush. Summer resident; tolerably common. Arrives last week in April. Nidification begins by May 15; eggs, four to six. Departs last week in September.

170. *Geothlypis formosa* (Wils.). Kentucky Warbler. Summer resident; common. Arrives last week in May. Nidification commences by the 20th of May; eggs, four to five. Departs by the 10th of September.

171. *Geothlypis philadelphica* (Wils.). Mourning Warbler. Transient visitant, tolerably

common in spring, rare in autumn. Arrives by the 10th of May, and does not leave until the last week in that month. Departs by the first week in September.

172. *Geothlypis trichas* (Linn.). Maryland Yellow-throat. Summer resident; abundant. Arrives last week in April. Nidification commences by May 25; eggs, four to five. Departs October 10.

173. *Icteria virens* (Linn.). Yellow-breasted Chat. Summer resident; common. Arrives second week in May. Nidification takes place by June 10th; eggs, four to five. Departs second week in September.

174. *Sylvania nitrata* (Gmel.). Hooded Warbler. Summer resident; rare. Arrives first week in May. I have found its nest by the first week in June; eggs, four. Departs first week in September.

175. *Sylvania pusilla* (Wils.). Wilson's Warbler. Transient visitant; tolerably common. Arrives second week in May, and remains until the last of the month, to reappear by September 20th. Departs by October 10th.

176. *Sylvania canadensis* (Linn.). Canadian Warbler. Transient visitant; common. Arrives first week in May, and leaves by the last week in the month, to reappear first week in September. Departs by 25th of that month.

177. *Setophaga ruticilla* (Linn.). American Redstart. Summer resident; common; abundant in migration. Arrives by May 5th. Nidification takes place by the 25th of that month; eggs, four. Departs by the second week in October.

178. *Anthus pennsylvanicus* (Lath.). American Pipit. Winter resident; tolerably common. They arrive from the North by the last of October, and depart by the first week in April, but are more frequent in the autumn and spring migrations.

179. *Mimus polyglottus* (Linn.). Mockingbird. Summer resident; very rare.

180. *Galeoscoptes carolinensis* (Linn.). Catbird. Summer resident; abundant. Arrives first week in May. Nidificates by third week in that month; eggs, four to five. Departs last week in October.
181. *Harporrynchus rufus* (Linn.). Brown Thrasher. Summer resident; common. Arrives second week in April. Nidificates by May 20; eggs, three to five. Departs first week in October.
182. *Thryothorus ludovicianus* (Lath.). Carolina Wren. Resident; tolerably common. Nidificates by the second week in May; eggs, five to seven.
183. *Troglodytes aedon* (Vieill.). House Wren. Summer resident; common. Arrives last week in April. Nidificates by May 20; eggs, four to six. Departs last week in September.
184. *Troglodytes hyemalis* (Vieill.). Winter Wren. Winter resident; common. Arrives last week in October, and remains until the second week in April.
185. *Cistothorus palustris* (Wils.). Long-billed Marsh Wren. Summer resident; very rare. I took one nest and set of five eggs, June 15, 1886, near the Octoraro Creek, below Atglen, this county.
186. *Certhia familiaris americana* (Bonap.). Brown Creeper. Winter resident; common. Arrives last week in November, and remains until the last of April.
187. *Sitta carolinensis* (Lath.). White-breasted Nuthatch. Resident; common. Nidification commences by the first week in May; eggs, five to eight.
188. *Sitta canadensis* (Linn.). Red-breasted Nuthatch. Winter resident; rare. Arrives first week in November, and leaves in April. I have taken several specimens of this species along the Octoraro, during the month of December, where they seem to be more common than elsewhere.
189. *Parus bicolor* (Linn.). Tufted Titmouse. Resident; common. Nidificates by the last week in April; eggs, six to eight.
190. *Parus atricapillus* (Linn.). Chickadee. Resident; common. Nidificates by April 25th; eggs, four to eight.
191. *Regulus satrapa* (Licht.). Golden-crowned Kinglet. Winter resident; common. Arrives first week in October, and leaves the second week in April.
192. *Regulus calendula* (Linn.). Ruby-crowned Kinglet. Transient visitant; common in migration; a few remain throughout the winter months some seasons. Arrives first week in April, and again by the last week in September.
193. *Polioptila caerulea* (Linn.). Blue-gray Gnatcatcher. Summer resident; tolerably common. Arrives second week in April. Nidificates by May 10; eggs, four to five. Departs last week in September.
194. *Turdus mustelinus* (Gmel.). Wood Thrush. Summer resident; common. Arrives last week in April. Nidificates by the third week in May; eggs, three to five. Departs the last of October.
195. *Turdus fuscescens* (Steph.). Wilson's Thrush. Summer resident; rare; in migration common. Arrives second week in May. Nidificates by the last of the month; eggs, four. Departs by October.
196. *Turdus ustulatus swainsonii* (Cab.). Olive-backed Thrush. Transient visitant; common. Arrives the last of April, and again by the first week in October.
197. *Turdus uonalaschkei pallasii* (Cah.). Hermit Thrush. Transient visitant; common. Arrives second week in April, and again by the third week in October.
198. *Merula migratoria* (Linn.). American Robin. Summer resident; abundant. It frequently appears in February, generally not until the first week in March. Nidificates by the third week in April; eggs, four to five; two broods. Departs by November 1.
199. *Sialia sialis* (Linn.). Bluebird. Summer resident; common. Arrives second week in February. Nidificates by first week in April; eggs, four to six. Departs by second week in December.*

C. B. Ressel.

A Series of Eggs of the Pine Warbler.

Nineteen nests of the Pine Warbler (*Deudorix rigorsii*) are before me, and they exhibit so much uniformity of construction that the description of one will suffice for all.

They were all built on the horizontal limbs of pine trees, from two to twelve feet from the trunk, and the height from the ground varied from twenty to eighty feet. The most usual distance, however, was about fifty feet. They are composed of small strips of grape-vine bark, closely woven together, and have a great quantity of white cocoons on the outside. Inside they are lined with fine grass and horse-hair, with a good many feathers. Some nests have fewer of the latter than others, but one of them is lined with feathers of the Cardinal

* We have received a number of communications questioning the identity of some of the birds given in this list, the writers believing that those referred to cannot breed in the locality. In our next issue we will publish notes from them.—F. B. W.

Grosbeak (*Cardinalis cardinalis*) which makes it very pretty. An average one measures 1.70 inches in depth outside by 2.80 outside diameter. The inside depth is 1.45, and the inside diameter 1.55. The eggs belonging to the above nests may be thus described:

Set I. April 12, 1888. Wake County, North Carolina. Nest in pine tree, sixty feet from ground, and five feet from trunk. Bird seen building nest. Four eggs, fresh. Grayish-white, spotted and speckled with lilac-gray and chestnut. The markings are principally grouped in wreaths near the larger ends: .75 x .55; .72 x .55; .74 x .55; .76 x .54. The largest eggs in the series.

Set II. April 14, 1888. Wake County, North Carolina. Nest in pine tree, fifty feet from ground, and eight feet from trunk. Bird on nest. Four eggs, incubation one-tenth. Dark grayish-white, speckled and spotted with lilac-gray and chestnut. The heaviest markings are nearly all confined to wide wreaths near the larger ends: .73 x .53; .72 x .52; .71 x .51; .71 x .51.

Set III. April 14, 1888. Wake County, North Carolina. Nest in pine tree fifty-five feet from ground, and ten feet from trunk. Bird on nest. Four eggs, incubation two-tenths. Dark grayish-white, heavily spotted with lilac-gray and chestnut. The markings are scattered all over the eggs, but are heaviest near the larger ends: .72 x .51; .74 x .52; .73 x .51; .74 x .52.

Set IV. April 16, 1888. Wake County, North Carolina. Nest in pine tree fifty feet from ground, and nine feet from trunk. Bird on nest. Five eggs, incubation four-tenths. Grayish-white, speckled and spotted with lilac-gray and chestnut. The markings are thickest and heaviest near the larger ends, where they form indistinct wreaths: .70 x .56; .73 x .57; .72 x .57; .67 x .54; .73 x .57. Five eggs is an unusual number for this species.

Set V. April 20, 1887. Iredell County, North Carolina. Nest on limb of pine tree, twenty feet from ground. Four eggs, incubation begun. Grayish-white, spotted with lilac-gray and burnt umber. The markings are nearly all at the larger ends: .69 x .53; .69 x .51; .66 x .51; .67 x .51.

Set VI. April 16, 1888. Wake County, North Carolina. Nest in pine tree sixty feet from ground, and eight feet from trunk. Bird on nest. Four eggs, incubation four-tenths. Grayish-white, heavily spotted with chestnut and lilac-gray. The spots are all over the surface but are heaviest near the larger ends: .69 x .53; .70 x .52; .69 x .53; .69 x .54.

Set VII. May 3, 1888. Wake County, North Carolina. Nest in pine tree fifty feet from ground, and two feet from trunk. Bird on nest. Four eggs, incubation four-tenths. Grayish-white, spotted with chestnut and a few traces of lilac-gray. The markings on this set, although somewhat heavier near the larger ends, are more evenly distributed all over their surface than on any others in the series: .70 x .54; .71 x .54; .69 x .54; .70 x .53.

Set VIII. April 16, 1888. Iredell County, North Carolina. Nest in pine tree thirty-five feet from ground. Four eggs, incubation begun. Bird on nest. Grayish-white, speckled and spotted with chestnut and lilac-gray. Nearly all the markings on this set are grouped together in wreaths, and on three of the eggs these wreaths are near the larger ends, while on the fourth it is near the smaller end: .68 x .52; .66 x .54; .68 x .53; .67 x .55.

Set IX. May 4, 1888. Wake County, North Carolina. Nest in pine tree sixty feet from ground, and six feet from trunk. Four eggs, incubation five-tenths. Deep grayish-white, speckled and spotted with lilac-gray and chestnut. There are also a few specks of burnt umber: .74 x .53; .73 x .53; .74 x .52; .72 x .51.

Set X. April 18, 1888. Wake County, North Carolina. Nest in pine tree sixty-five feet from ground, and three feet from trunk. Bird on nest. Four eggs, incubation six-tenths. Grayish-white, speckled and spotted with lilac-gray and chestnut. The markings of the latter color are large, and oblong in shape, being different in this respect from any others in the series: .72 x .53; .73 x .53; .74 x .53; .70 x .52.

Set XI. April 9, 1888. Wake County, North Carolina. Nest in pine tree twenty feet from ground, and fifteen feet from trunk. Bird on nest. Four eggs, fresh. Pinkish-white, speckled and spotted with brick red and a few markings of lilac-gray. This set is perfectly authenticated, as the bird was on the nest, which is exactly similar to all of the others belonging to sets of eggs described in this article. In shape and size the eggs are similar to the other sets, but in all other respects they are unlike any of them, and at a first glance anyone would say that they could not have been laid by a Pine Warbler, so different are they in their general appearance. The ground color of all the others is of a decided grayish or bluish tint, while in this set it is pinkish-white, and the markings are so much more brilliant that the whole effect of the eggs is decidedly reddish. I have seen over fifty sets of eggs of this bird, but none of them were at

all like these. They measure: .74 x .54; .74 x .54; .73 x .56; .73 x .55.

Set XII. April 12, 1889. Wake County, North Carolina. Nest in pine tree, fifty feet from ground, towards end of limb. Bird on nest. Four eggs, fresh. Bluish white, speckled and spotted with lilac-gray and chestnut. The markings are more or less all over the eggs, but much heavier near the larger ends, where they form indistinct wreaths: .72 x .53; .74 x .52; .75 x .54; .72 x .53.

Set XIII. April 12, 1889. Wake County, North Carolina. Nest in pine tree, forty feet from ground, and two-thirds of the distance from the end of the limb from the trunk of the tree. Bird on nest. Four eggs, fresh. Grayish-white, speckled and spotted with russet and olive-gray. The markings are nearly all near the large ends, where they form wreaths: .70 x .51; .73 x .51; .71 x .52; .68 x .53.

Set XIV. April 18, 1889. Wake County, North Carolina. Nest in pine tree, sixty feet from ground, and near the end of a limb, twelve feet from the trunk. Bird on nest. Four eggs, incubation one-third. Bluish-white, spotted with lilac-gray and chestnut. The markings form wreaths near the larger ends: .71 x .56; .70 x .55; .71 x .55; .71 x .55.

Set XV. April 18, 1889. Wake County, North Carolina. Nest in pine tree, fifty-five feet from ground, saddled on limb. Bird seen building. Four eggs, fresh. Light bluish-white, speckled with lilac-gray and chestnut near the larger ends, where the markings form indistinct wreaths: .66 x .52; .65 x .53; .68 x .53; .68 x .54.

Set XVI. April 29, 1889. Wake County, North Carolina. Nest in pine tree, forty feet from ground, and twelve feet from end of limb. Bird on nest. Four eggs, small embryos. Bluish-white, spotted with lilac-gray and chestnut. The markings are nearly all near the larger ends, where they form heavy wreaths: .70 x .55; .72 x .55; .72 x .55; .71 x .55.

Set XVII. May 2, 1889. Wake County, North Carolina. Nest in pine tree, forty-two feet from ground, and five feet from trunk. Bird on nest. Four eggs, incubation commenced. Bluish-white, speckled and spotted with lilac-gray and chestnut. On three of the eggs the markings form wreaths around the larger ends, leaving the remainder of the surface comparatively unmarked, but the fourth egg is speckled all over, and presents a different appearance from any others in the series: .70 x .53; .70 x .53; .68 x .51; .67 x .49.

Set XVIII. May 2, 1889. Wake County, North Carolina. Nest in pine tree, twenty feet from ground and twelve feet from trunk. Bird on nest. Four eggs, incubation commenced. Grayish-white, speckled and spotted with lilac-gray and chestnut. The markings form wreaths near the larger ends of the eggs: .74 x .53; .70 x .53; .73 x .53; .71 x .54.

Set XIX. May 2, 1889. Wake County, North Carolina. Nest in pine tree, seventy feet from ground, and four feet from trunk. Bird on nest. Four eggs, small embryos. Light bluish-white, speckled and spotted with lilac-gray and chestnut. The markings form wreaths close to the larger ends, much higher up than on any others in the series: .72 x .55; .66 x .54; .71 x .55; .71 x .56. *J. P. N.*

Nesting of the Barred Owl at Raleigh, N.C.

On April 21, 1887, we took our first "set" of Barred Owl (*Strix nebulosa*) consisting of a good-sized young one and no eggs. We also killed the "papa" of said young one but Mrs. B. O. escaped us. This young one we kept for over two months, but on June 28th we concluded to kill him, and on going to do so we found him dead on the floor. Perhaps fourteen large house rats we had given him to feast on was the cause. Anyhow he died in a mysterious way, and was made into a skin, but not before he had become a terror to us all.

Although only the male bird was killed, yet the stub in which "George" was raised has never been used since. Next year on April 9th, we took a set of two addled eggs from a hollow in the top of an old stub twenty feet high and killed the female bird. This year, though not much expecting anything on account of the death of the female, we got a set of two nearly fresh eggs on March 18th from the same stub, but did not molest the old bird. My brother who went up to the nest said there were only the two eggs there. On April 6th, however, he again went to the stub and flushed the owl. On going up to the nest he found one egg firmly imbedded in the chips and dirt at the bottom of the hollow. He left the egg for three days but no more were laid so he took it on April 9th. The egg on blowing proved to be addled but not to any extent, and it has always been a question with us as to whether it might have belonged to the first set of two or not.

C. S. Brimley.

Raleigh, N. C.

A List of Birds in whose Nests the Cowbird's Eggs Have Been Found.

Having my attention called repeatedly to the parasitical habits of the Cowbird (*Molothrus ater*) and having myself been fully convinced that a large portion of the smaller birds are annually prevented from raising a brood through this bird's intrusions than is generally supposed, I determined to watch them closely, and commenced early the past spring to record each instance of the finding of a Cowbird's egg, or eggs, in the nest of another bird, and the following is the result of my observations.

1. *Sayornis phoebe*. Pewee. One nest early in April contained two eggs of the Cowbird and three of the Pewee. Another found in May contained damaged eggs of the owner and two sound Cowbird's eggs. This nest had been deserted some time.

2. *Empidonax pusillus traillii*. Traill's Flycatcher. A nest found in June contained one egg of the Cowbird.

3. *Spizella socialis*. Chipping Sparrow. Six deserted nests containing one or more eggs each of the Cowbird have been recorded. These nests usually contained an egg or two of the Sparrow, which, like most of the Cowbird's, had been chipped in the sides and part of the contents gone. It is usually the habit of the Cowbird to watch closely a nest which is about completed, and when the first egg is laid it generally deposits one or more of its own. It will then revisit the nest in a day or two and if the eggs are thrown out, which quite often is the case, another is deposited, and the result will be that the bird is either forced to desert its nest or hatch the intruder's egg.

In this locality the Chipping Sparrow is a great sufferer from the Cowbird's obstructive habits. To illustrate the difficulty experienced in this direction I give the substance of my observations on a pair which built repeatedly in some evergreens about the premises. Their first nest as soon as completed was noticed by a female Cowbird which had been about for some time, and for several days it made a visit to the nest (always when the birds were away feeding) each day until the first egg had been deposited, when immediately a Cowbird's egg appeared, which, when discovered by the Sparrows, was thrown over the edge of the nest, but the next day another was left by the Cowbird, which was broken within the nest, perhaps in at-

tempted efforts to remove it. This nest was then deserted and another commenced not far from it, which fared with materially the same results.

It was now quite late in the season, and although the pair of Sparrows remained about constantly they did not make further attempts to raise a brood. I know of no instance of the Chipping Sparrow's ever hatching a Cowbird's egg.

4. *Spizella pusilla*. Field Sparrow. A nest containing a set of four eggs of the Sparrow and one egg of the Cowbird found in June.

5. *Pipilo erythrrophthalmus*. Towhee. I have examined a dozen or more nests of this bird, and with but one or two exceptions all contained Cowbird's eggs. I think however that very few nests are deserted by the owner on this account, as the eggs closely resemble their own, and the Cowbird is able to perform its intrusions quite successfully. On the other hand the Towhee is more able to bear its burden, without suffering much loss, than are the small birds and it generally succeeds in launching its double brood.

6. *Cardinalis cardinalis*. Cardinal. The Redbird is not often troubled by this bird's misdeeds, but I once found and collected three nests containing one, two and two eggs respectively of the Cowbird while searching a swampy wood, in the vicinity of Lima Lake, where a large number were found nesting.

7. *Passerina cyanea*. Indigo Bunting. On two occasions I have found the Cowbird's egg in this bird's nest. In neither case was the nest deserted.

8. *Spiza americana*. Black-throated Bunting. But once recorded. One egg, May 30. The nest deserted.

9. *Piranga erythromelas*. Tanager. On May 5. A nest containing three eggs of this bird and two of the Cowbird was observed.

10. *Piranga rubra*. Summer Tanager. A nest found July 16, containing two eggs of the Cowbird and three of the Tanager in which incubation was well advanced.

11. *Vireo olivaceus*. Red-eyed Vireo. My observations on the family *Vireonidae* in this connection were made as thorough and complete as possible, and they at once show that in this family are the Cowbird's greatest victims. No birds, when burdened with a Cowbird's eggs, are more helpless than the Vireos. Of the Red-eyed Vireo I have found six nests, and out of this number four contained eggs of the Cowbird and the other two incomplete sets. I have never found over four eggs

of this Vireo in the same nest and this number but once, as the usual number, when they contain Cowbird's eggs, is one, two or three. I do not fully understand why this is the case, or whether or not it is caused by the Cowbird's eggs being deposited.

12. *Vireo gilvus*. Warbling Vireo. In Missouri where I have taken a large number of this bird's nests I have three records of the Cowbird's eggs. One nest containing two eggs, and two containing one egg each.

13. *Vireo noreboraceus*. White-eyed Vireo. Two nests containing two eggs each of the Cowbird are recorded.

14. *Protonotaria citrea*. Prothonotary Warbler. May 21, a set of five eggs of this Warbler and one of the Cowbird was found.

15. *Geothlypis trichas*. Maryland Yellow-throat. A nest found in May contained one Cowbird's egg.

16. *Icteria virens*. Yellow-breasted Chat. A set of eggs collected in Missouri on May 20 contained two eggs of the Cowbird.

17. *Harporrynchus rufus*. Brown Thrasher. April 30, I found a nest with three of the owner's eggs and one egg of the Cowbird. This I believe is an unusual instance, both the early date of finding and the bird in whose nest it was laid.

18. *Turdus mustelinus*. I found a nest of this Thrush in Missouri containing one egg of the Cowbird and three of the Thrush within a few feet of a Vireo's nest which also contained a Cowbird's egg.

Otho C. Poling.

Quincy, Illinois.

The Florida Jay (*Aphelocoma floridana*.)

I first saw the Florida Jay in an old orange grove on the Banana River. It was Sunday morning in mid August. I was waiting for a conveyance to take me to the light-house on Cape Canaveral, and whenever a lull occurred in the "mosquito war" I tried to make a few bird notes. This same "mosquito war" is a regular summer institution in South Florida. If I could do the subject justice I would write it up, but words fail, at least English words do, to express a tithe of the horrors which an unprotected collector encounters among them in what would otherwise be a charming region. The owner of the grove was with me, and as we neared a thick mass of guava bushes he pointed out a bird which, though I have never seen before in life, I could not fail to recog-

nize. As I showed some interest in the specimen before me I was at once saluted with the stereotyped inquiry, "How much will you agree to give apiece for them?" I explained that I wished to shoot them myself, and of course the rejoinder was "How much will you agree to pay a day to shoot in my grove?" Merely for amusement I followed up this train of conversation and the result finally was that I was offered the privilege of shooting on the premises for six dollars a day, or I might pay half a dollar apiece for what "jay birds" I could kill. I thanked the genial son of the soil for his generous offers but declined them both, and the train having at last arrived started for the light-house. This illustrated another phase of Florida life. A species of mammal exists therein closely allied to man but predacious by nature and possessing—not cast iron—but adamantine check. Their prey consists almost exclusively of rich Yankees of which there is usually a bountiful harvest in the winter; but during the hot season they will pounce upon any chance passer-by, even if it be only a poor ornithologist.

Within a radius of two or three miles from Cape Canaveral I found the Florida Jay tolerably common, but do not suppose from that statement that it was easy to procure them "in quantities." They are fully as wary as their Northern relatives and unless killed outright it's "goodbye Jay."

A sample day was something like this. I started out in the early morning and after walking about a mile and a half on the road towards the post-office, I heard the warning cry of a jay somewhere towards the right. This note bears some resemblance to the scolding of a Mockingbird, but is a little more prolonged and much more nasal in quality. Cautiously following the sound I caught sight of the bird in an oak bush. Between us was a shallow saw-grass pond which I must wade. These ponds contain, among many other specimens of animal life, a lively little bug that stings much like a bee. It's best to shake your foot *hard* every time you raise it from the water. Also lose no time in raising the other foot and shaking that too. All the time you will either say or think many naughty words. Just as I got across the pond the jay dropped gracefully down on the further side of the bush and when I saw him next he was on the tip-top of the highest of a little jungle of Spanish Bayonets. Furthermore the whole space between us was overgrown with little bushy oaks that are very hard to force through

and switch and snap so that any attempt at stalking is impossible. Well, anyway the oak "scrub" was no worse than the pond, so at it I went, and when less than half way through my jay bird started to come back and I brought him down. In that thick cover it was about an even thing whether I found him or not, but after about an hour's search I came upon him stone dead and covered with little red ants. In such cases it is well to sprinkle the specimen thoroughly with Pyrethrum powder before taking it in the hand. If not you will have to sprinkle yourself at once, and the jay is smaller and takes less powder. Then if it's a warm day the specimen must be skinned at once. Of course sometimes you will come across a specimen in an easy place and secure it at once but the chances are that the jay sees you first, and when that is the case make up your mind for a good long chase. My "best day" I secured six, but by not skinning them in the field did not preserve all.

Many little incidents occur to vary the monotony of the day. A buck jumps out of the cover before you when like as not you have only dust shot in your gun. Alligators sometimes approach the intruder in a way that looks hostile, but they seem on the whole to be harmless. Late one afternoon I chanced upon a bear. Poor little fellow! I was really sorry that I had a load of buck-shot that time for he was such a little chap and so painfully lean that it was really a shame to shoot him. Furthermore it was such a tough trail back to my quarters that I was forced to leave him to the buzzards. One claw and the "glory," such as it was, was all I carried away with me.

I think that the Florida Jay must raise two broods in a year. I found young scarcely able to fly in August and some of the natives told me of taking eggs in May; and I found one or two nests with very fresh "signs" about them.

There is a strange superstition about this bird and I have heard the same or a similar one about the Blue Jay also. Some one tells you that you cannot find a "Jay bird" on Friday. You ask why and you are told somewhat reluctantly—for it's an unlucky thing to talk about—that on that day they all go to hell and carry a stick to the devil. They don't have to do it. They are simply "bad to that." This is one of the most widely distributed of any bird fables that I know. I have heard it from Maine to Florida and from all classes of people and all races, white, black and red. The Indians say there are none in the "Happy

Hunting Lands." They go and look in four times every moon and carry a stick to mark the way back.

Walter Hoxie.

Nesting of the Great-crested Fly-catcher in Ontario Co., N. Y.

Mr. C. H. Wilder, in his "County Natural History Notes" (*Ontario County Journal*), says of this bird (*Myiarchus crinitus*): "Summer resident. Common. Breeds." Now at the time his notes were published (June, 1887), I was not very familiar with the habits of this species, although I had seen one or two nests, but during the seasons of 1887, 1888 and 1889, I have made special observations, and now look upon the bird as one of our more common and most conspicuous summer residents.

It is very unusual for me to enter any large wood without seeing or hearing one or more of them. They usually keep well up in the tops of the trees, but their loud spirited note attracts the attention of the most casual observer.

Although this bird is more often heard in the depths of the forest, the nest is to be looked for in some old orchard where the trunks are hollow or decayed, and the boughs have been broken off by stones. If upon nearing one of these "old-timers" you hear the cry of the Great-crest, you may rest assured that your search will be rewarded with one of the most beautiful sets of eggs which will ever grace your cabinet.

My experience in three cases has taught me that the birds return to the same nest in alternate years. The nest is always placed in a hollow, horizontal limb; usually in one which has been broken off and decayed back two or three feet into the limb. Ten nests examined by me were placed in such situations. The nest is composed of dried grass lined with feathers, and in nine cases out of ten contains a piece of snake-skin.

My three sets consist respectively of four, five, and six eggs, of which the one with six is by far the most beautiful. The eggs in this set average larger than those in the other two. They measure: .90 x .70; .94 x .72; .85 x .65; .92 x .71; .90 x .73; .88 x .70, and are very thickly penciled with purple-chocolate or lilac running in a longitudinal direction on a clay-buff ground. The other eggs are more pointed and less highly colored than these. This Fly-catcher arrives from the South about May 8th.

Elias J. Durand.

Canandaigua, N. Y.

Wanderings, No. 5.

While drifting about the woods during my last vacation in the month of September, '88, I came upon an old orchard of perhaps two acres in extent, and here, wearied by several hours of travel, I sat myself down beneath the shade of an old "High Top Sweeting," and while quenching my hunger and thirst with its pleasant fruit a feeling of content, known only to the vagrant naturalist when surrounded by Nature's works, stole over me, and I lay back with my head upon the stock of my gun, and thought of the beings who now haunted its trees and borders, and the people who once inhabited it.

This orchard, situated about six miles south of Old Plymouth Rock, lies on a ridge of rolling hills, completely surrounded by woods, and is as entirely isolated as if it lay miles from human habitation.

Here, some one, perhaps a young man with hope in his heart, and a desire to provide a home for himself and a loved one who should soon accompany him in his travels through life, by his own might carved a place out of the high trees of this almost unbroken forest, and formed an abiding place. And here, in after days, their descendants, as children, plucked the fruit from these self-same boughs, and, as youth and maiden, wandered, oblivious to all but their own thoughts, over this same ground and rested beneath the shade in the same spot now occupied by a dreaming tramp, and listened to the voices of the birds and insects which rose and fell in the warm September air brought to their ears, as now to mine.

These rolling hills and vales, once inhabited by a hardy, happy race of people, are now left to run to waste, visited only by the bird and squirrel, who flit about the branches or run over the ground and fences, or by the footsteps of the hunter or a wanderer like myself.

In the tree under which I now lie are the deserted nests of a robin, a wood pewee, a king bird, a woodpecker of some kind, and this hollow in its trunk looks as if it might be sometimes occupied by an owl. A little farther on and another tree shows the nest of a White-bellied Swallow, with its feathery lining, and almost every tree shows some signs of bird life. Such a place have I never seen before, for here with no disturbance from the hand of man, they live, build their homes, and raise their young in peace and quietude.

Scattered about through the entire town are

similar patches of clearings, nearly all, however, occupied by houses in which dwell descendants of the hardy Puritans, a people rough and none too well educated, it is true, but bearing beneath their rugged exteriors, hearts as warm as occupies the bosom of any mother, and a kindly nature that opens out to a friend, and even to the chance stranger, with a warmth unsurpassed by any class with whom I have met.

Sensitive to a degree, honest as the day is long, many an hour have I spent listening to their stories of sporting, hunting and fishing, in days gone by, fighting the flames of the wood fires which often wage over these sections, to save their homes, and often have they directed me and even left their labors to show me where to find the abiding place of some bird, which it would have been hard for me to otherwise locate.

This entire region fairly teems with bird life, and that, too, of the rarer varieties, seldom met with in the more thickly settled portions. Nearly every bogger's sand-pit holds its kingfisher's hole. Parula Warbler's nests are *galore*. The Red-tail, Red-shoulder, Cooper and Sparrow Hawks inhabit the taller woods; the Great Horned, Sereech, and Acadian Owls nest in the deeper recesses of the glens, and, if we will believe the natives, the Eagle raises its brood somewhere around here. At least, they are by no means uncommonly seen, sailing over the ponds, or pluming themselves upon some dead tree by the water's edge. And I once almost persuaded myself that I had located one of their nests, but investigation failed to support my ideas. But I live in hopes, for here, if anywhere in the section, are the breeding places of these monarchs of the air.

Well, I have been "wandering" in earnest this time, and got lost in my mental trip while lying under the shade of the old "High-top Sweeting," and some time I will tell you how I did really get lost here amongst the labyrinths of roads and paths which cross-section this country.

Frank A. Bates.

Nesting of the Acadian Flycatcher at Raleigh, N. C.

Having had considerable success with the Acadian Flycatcher (*Empidonax acadicus*) I thought it might interest some of the readers of the O. & O. to hear my experiences. Not having done much in finding sets of this bird heretofore, although I had seen bushels of old

nests, I concluded to find some this year or know the reason why.

Well, I looked and looked and looked, and for a long time I did not find any, but finally on May 24, I found a nest some ten feet high, hung in the fork at the end of a sweet gum tree limb, and secured two of the three fresh eggs contained therein (the third egg struck the ground and collapsed.)

From that time on the difficulty of finding nests seemed to vanish, and I found about two-thirds of all I looked for.

Complete sets of the first laying were found for about two weeks after the first nest was found, and after that I got several second sets from pairs whose nests had been previously taken. The nests are usually shaped like the bowl of a ladle, but not so deep, woven of weed stems, grass, and catkins, etc., and suspended in a fork near the end of a long drooping limb. The material used is always old and brown, and catkins or pine straws are usually left hanging from the nest, and loose material is often attached to the side of the nest, making it look at a casual glance very much like a collection of trash such as often sticks in an old last year's web of the tent caterpillar.

In about half the nests the bottom is thin enough to see the eggs through, so that one can tell when to take them. The nest however is quite strong, although so thin, and in spite of being so shallow, the eggs will not roll out unless the nest is tipped considerably over. The nests are placed from seven to fifteen feet high, sometimes more, the majority being nine to ten feet in height. About half of them are placed in small dogwoods, the balance being in post oak, water oak, sweet gum, birch and tulip poplar trees, sweet gum being second favorite to dogwood.

The set seems to be three, that being the number in ten nests found this year, and no undoubtedly full set of two having been taken.

The birds stay in the neighborhood of the nest while building and setting, but not during the four or five days they take to complete a nest. When on the nest they leave it so quietly and unobtrusively on the approach of man as to make it next to impossible to find the nest by flushing the bird. Careful search in the neighborhood of a pair that seem interested or disturbed by one's movements seems the best and surest way of finding a nest.

The eggs are quite pretty, with their yellowish ground and dark reddish brown spots or blotches thinly scattered over the larger end. The size and number of the spots varies a

good deal as does the ground color of the eggs, but the latter is always yellower than that of any other small egg I am acquainted with.

The birds seem equally distributed in highland and lowland woods, and the same pairs seem to stay in just about the same places each year, at least I know of a number of places where for several years a pair could be found within a few yards of the same spot.

C. S. Brimley.

Raleigh, N. C.

[It is not a little remarkable that the eggs of such a common bird as the Acadian Flycatcher should have been for so many years incorrectly described.

Wilson and Audubon evidently confounded them with eggs of the Least Flycatcher (*Empidonax minimus*), as they both described them as pure white and unmarked, and stated that the number of eggs laid was from four to six.

It was not until 1867 that Mr. E. A. Samuels, in his *Ornithology and Oölogy of New England*, first described them correctly from specimens furnished to him by me, and taken in Chester County, Pennsylvania.

It probably breeds more abundantly in the vicinity of Philadelphia than anywhere else. In that locality the nest is usually a fragile structure, placed in a sapling, near the end of a twig. The height from the ground varies from five to twenty-five feet, but the nest is usually found at an elevation from five to fifteen feet.

The nest varies considerably in its construction, but is most commonly composed of chestnut blossoms, though often ragweed is used. It is sometimes lined with grass, and some of the nests are quite neatly put together, while others have pieces of ragweed hanging down from the sides of the structure, and giving it a slovenly appearance. Frequently it is so thin that one can stand beneath it and see the eggs in it through the bottom.

The favorite situation is in a damp woods, near a stream of water, and sometimes overhanging it. Occasionally the edge of a wood is chosen for building.

When the nest is approached the birds will usually betray its location by their noisiness.

The earliest date at which fresh eggs were found near Philadelphia was May 29, and the latest, June 30, so it is very probable that two broods are raised in a season.

The number of eggs laid is usually three, although sometimes only two, and it is not unusual to find two well incubated eggs, thus proving that no more would have been laid. I have never found four eggs in one nest, and have never seen or heard of any authentic set of that number.

The Cowbird does not often trouble this species, as it is unusual to find their eggs in nests of the Acadian.

The ground color of the eggs varies from a light to a dark cream, spotted usually at the larger end, with different shades of reddish-brown and chestnut. In some specimens the spots are smaller and are scattered sparingly all over the surface, while in others (and this is the typical marking) the spots are larger, and all near the larger end.—*J. P. N.*

Nesting of the Blue-winged Yellow Warbler in Chester County, Pa.

The record of nests of this rare Warbler that have been found in Chester County is as follows:

Mr. Thomas H. Jackson has found three nests, one of which contained five eggs, the other two contained young birds.

Mr. Samuel B. Ladd has two sets of eggs in his collection, consisting of four and five eggs respectively, which were taken by Mr. Wm. Hall, near the Westtown school, this county.

Mr. Ladd found two nests himself this year, one of which contained three young Warblers, one Warbler's egg (which was nearly hatched) and one young Cowbird. The other nest was found June 16, and contained three eggs of the Warbler and one of the Cowbird. Both these nests were placed on the ground at the foot of a bush, in a clearing.

On May 29, 1889, I had the good fortune to find a nest of this Warbler.

I was looking through a good-sized and (in places) swampy woods, where two years before I had found a nest of the Maryland Yellow Throat (*Geothlypis trichas*) and which is a favorite nesting place for the Acadian Flycatcher (*Empidonax acadicus*) three or four pairs of which breed there every year.

I had been there for some time and not found anything at all, when suddenly a small bird, which I did not at first recognize, got up about two or three feet off from me. Putting my collecting box on the ground I got down on my hands and knees and began to look around carefully, tearing up the weeds, ferns,

etc., for I had no desire to repeat an experience I had last year with a Golden-crowned Thrush's nest, which I stepped on and broke the eggs.

For quite a long time I was unable to find any nest, having in the meanwhile made a bare spot of about fifteen feet square.

By this time I was beginning to get discouraged, and I walked back to where I had left my box. As I stooped down to pick it up I saw it was almost resting against a nest, which contained five eggs, and which I at once recognized as belonging to the Blue-winged Yellow Warbler (*Helminthophila pinus*).

The nest is a beautiful structure. It is quite large, and is composed of leaves, grape-vine bark, and a few pieces of straw, and is lined with fine grass and horse-hair. It was placed on the ground between the forks of a small bush, on a piece of level ground about thirty-five yards from a stream of water, and at the bottom of a slight hillside in a rather open spot in the woods, not more than one hundred and fifty yards from a road.

While I was looking for the nest the female was joined by the male, and they both flew from branch to branch of the neighboring trees (usually at a considerable distance from the ground) uttering notes of distress. There can be no question as to the identification as I saw both birds plainly. On blowing the eggs I found that they contained small embryos.

J. P. Norris, Jr.

Nesting of the Pied-billed Grebe.

The doubts that existed in my mind in regard to whether Grebes sit on their eggs to incubate them are entirely eradicated. A good opportunity has presented itself in both the Eared Grebe (*Colymbus nigricollis californicus*) and the Pied-billed Grebe (*Podilymbus podiceps*) and I took advantage of it to watch their nidification.

A pair of Pied-billed Grebes built their nest in the moss in a lake in full view of my house, and near enough to distinctly see the eggs of which six were laid. The old birds sat on them persistently for about four weeks, and only on three occasions during that time did I see the nest vacated, and then only for a few minutes, and this July has been the hottest month I ever experienced here. They have hatched out their brood and there is now a pair that has a nest with four eggs

that have been sitting two weeks, and I have not known the old bird to voluntarily leave the nest yet. I have been out in a boat twice to look at them, and as in the case of the others the old bird gets the eggs pretty well covered up by the time I get to them. The eggs, as in the case of the others, were always warm on the upper side and cool on the under, although I once visited them before the sun was up to make sure that that was not the direct cause of their upper side being warm.

The eggs are placed about on a level with the water, and when first laid are of a pea green, but soon become brown through contact with the decaying matter of which the nest is generally composed.

I took a large series of sets of the Eared Grebes about a month ago that all retained their natural color owing to no decaying matter being used in their nests but live grass. That alone would upset the decomposing theory, plenty of decaying material was at hand, but they chose a variety of grass that grew on the bottom of the lake in water six feet deep, and this they deposited on this water moss, but a gale of wind a few days after I had visited them carried away all their nests and eggs.

I shall attentively watch the new colony near my residence and will inform the readers of O. & O. later.

Wm. O. Smith.

Loveland, Colorado.

Variation in the Nesting Places of the Purple Grackle.

In the New England States the typical nesting places of the Purple Grackle (*Quiscalus purpureus*) is among the thick evergreen trees, but occasionally in a few localities the nest is built like that of the Redwing, in low bushes over or near water.

A third instance of its nesting differently from the usual manner came to my notice at Newburyport, Mass., on May 16, 1889. This time a pair of Grackles had chosen as a nesting site a cavity in a dead branch of a tall button-wood tree where they seemed to be perfectly contented, although a number of their kind were nesting in the typical manner within fifteen rods.

The variety *oenus* is, I believe, frequently found breeding in a like manner, but I am unaware that the type is known to show similar traits here in New England.

Harry Gordon White.

Gloucester, Mass.

Contents of the Stomachs of Certain Birds Collected in Brevard Co., Florida, Between Jan. 5, and April 15, 1889.*

125. Royal Tern: 9 specimens dissected, all containing small fish about four inches in length.

118. Snake Bird: 5 dissected, all containing fish.

120a. Florida Cormorant: 2 dissected. One crop empty; one crop contained a Mullet 13 inches long.

126. Brown Pelican: No. 1 contained 72 fish, average $3\frac{1}{2}$ in. long; No. 2, empty; No. 3, 2 Mullet 10 in. long; No. 4, 1 Mullet, 16 in. long; No. 5, 1 Mullet, 13 in. long; No. 6, stomach entirely empty; No. 7, 1 Mullet 10 in. long and 1 Mullet 14 in. long; No. 8, in stomach, 1 fish 7 in. long and 15 fish 2 to 3 in. long; in pouch, 1 fish 10 in. long and about 40 fish 3 in. long.

134. Florida Duck: Small shells of the following species: *Cylichna oriza* (Iottent.), *Utriculus canaliculatus* (Say.), *Truncatella subcylindrica* (Say.).

135. Gadwall, and

136. Widgeon: Contained shells of *Truncatella subcylindrica* (Say.) and small seeds. A large number dissected.

140. Blue-winged Teal: 10 dissected and all contained shells of the three above-named species together with the seeds of some water plant.

142. Shoveller: Contained shells.

143. Pintail: 15 dissected, all containing the shells of *Truncatella subcylindrica* (Say.).

149. Lesser Scaup Duck: Small shells.

194. Great Blue Heron: Fish, Mullet.

196. American Egret: Fish, Mullet 4 in. long.

199. Louisiana Heron,

200. Little Blue Heron,

201. Green Heron: 5 of each were dissected, all containing fish of an average length of 6 in.

206. Sandhill Crane: One specimen only dissected, containing three frogs and the remains of some small fish.

248. Sanderling,

258. Willet: All contained shells of *Odosomia impressa* (Say.).

270. Black-bellied Plover,

273. Killdeer Plover: Contained small seeds and shells.

* The numbers on the left correspond to the A. O. U. check list.

320. Ground Dove: 6 dissected, containing seeds.
325. Turkey Vulture: All contained remains of carrion.
330. Everglade Kite: 4 dissected, containing the animals of *Pomus depressus* (Say.), a fresh water shell.
- 339a. Florida Red-shouldered Hawk: Contained two chickens. Only one specimen dissected.
360. American Sparrow Hawk: Contained the remains of small birds.
364. American Osprey: All contained Mullet.
- 368a. Florida Barred Owl: Contained remains of the white-footed rat (*Hesperomys leucopus gossypinus*) and a skull of the Sora Rail (*Porzana carolina*).
390. Belted Kingfisher: Small fish.
402. Yellow-bellied Sapsucker,
405. Pileated Woodpecker,
409. Red-bellied Woodpecker,
412. Flicker: All contained berries of the cabbage palmetto.
456. Phoebe: Seeds.
- 477a. Florida Blue-jay,
479. Florida Jay: Insects and seeds.
- 488a. Florida Crow: Cabbage palmetto berries.
498. Red-winged Blackbird: Palmetto berries.
501. Mexican Meadow Lark: Seeds and insects.
- 511a. Florida Grackle,
512. Boat-tailed Grackle: Palmetto berries and insects.
- 542a. Savanna Sparrow,
584. Swamp Sparrow: Seeds.
587. Tohee: Palmetto berries.
593. Cardinal: Palmetto berries.
622. Loggerhead Shrike: Insects and seeds.
636. Black and White Warbler: Insects.
655. Myrtle Warbler,
672. Palm Warbler: Palmetto berries.
703. Mocking-bird: Palmetto berries and garden truck, such as tomatoes, etc.
704. Catbird: Seeds, orange peel and a few shells belonging to the genus *Pupa*.
761. American Robin: Palmetto berries.
- It will be seen by the foregoing that the food of most of the birds consists of palmetto berries. It is not known (to my knowledge) positively, how large a fish the Brown Pelican (*Pelecanus fuscus*) will take. The largest fish dissected from a Pelican's crop by me measured 16 inches. It has also been denied that the Pelican carries his food in his pouch. I

took from a Pelican's pouch 41 fish, one measuring 10 inches and 40 measuring 3 inches in length. I know that the Pelican had been flying at least four miles with the fish in his pouch.

F. C. Baker.

Nesting of the Sora Rail.

Five or six years ago a friend brought me a set of sixteen eggs of the Sora Rail (*Porzana carolina*) which he found in a marsh, and on blowing them I found they were in all stages of incubation. Some were perfectly fresh while some were nearly ready to hatch. I thought it strange at the time that there should be so much difference in their advancement, but concluded that the reason was, there being so large a set for so small a bird, that they did not get even warmth.

Towards the last of May, 1888, however, I found a nest myself of the Sora Rail. It contained three or four eggs when found, and I watched it closely. The bird laid an egg every day until she had a complete set of thirteen, when I collected them, on June 4, 1888, feeling sure that I had a set of fresh eggs. On blowing them, however, I found some of them so far advanced that I could not save them.

Again on May 19, 1889, I found another nest. It contained six eggs. There was a fresh egg added to the number each day until May 26, when the nest contained thirteen eggs, when fearing to leave them any longer on account of incubation, I collected it, hoping this time to get them fresh. But strange to say some of them were so badly incubated that I had to drill and blow what I could, and after filling the others with water, I sunk them in a bowl of the same and left them there until the embryos softened, and then it was with difficulty that I saved them.

I am thoroughly convinced that the Sora Rail begins to set almost as soon as she begins to lay, and by the time her set is completed her first eggs are far advanced. It must take at least ten days from the time that the first young bird appears until they are all hatched. Therefore collectors who expect to take a full set of fresh eggs of the Sora Rail will get disappointment unless they take a few of the first eggs that are laid before the set is completed.

Since writing the above, I had the good fortune on June 16, 1889, of finding four more nests of the Sora Rail, one contained ten eggs, another twelve, another fourteen, and another sixteen eggs; and a few days later, one of these

nests contained twenty eggs. This is the largest set of Sora Rail's eggs, I think, that I have ever seen recorded. I also had the pleasure of watching two of these sets through the process of hatching, and, true to my expectation, they hatched from day to day, as they had been laid. The young left the nests as soon as dry, but whether one of the parent birds took charge of them or whether they shifted for themselves, I am unable to say, but the setting birds stuck close to their nests until all the eggs were hatched.

The young birds were coal black all over, except a tuft of down longer than the rest growing out from under the chin, which was red. They also have a red stripe over the base of the upper mandible, that looks like a blood blister that is ready to break; altogether making a curious looking young bird. On June 1, 1889 I also collected a set of ten eggs of the Virginian Rail (*Rallus virginianus*) from the same swamp.

James B. Purdy.

Plymouth, Mich.

An Addition to the List of the Shore Birds of Cape Cod.

The summer and autumn of 1888 was an exceptionally good one for the occurrence of rare shore birds at Monomoy Island. The capture of several Stilt Sandpipers in breeding plumage, Baird's Sandpiper, and Red Phalarope has been recorded in the O. & O., and I wish to add the Western Sandpiper to the list. In July I shot a Sandpiper on the meadows, which showed much rusty or bay in the coloration of its upper parts. Early in September, Messrs. Webster, Bishop, Whiting, Castle and myself shot a number of sandpipers on the meadows, and Mr. Whiting called our attention to one he had shot as having an unusually long bill for a Semipalmated, and expressed his opinion that it was a rare sandpiper. Dr. Bishop and myself took the measurements and decided it to be *E. occidentalis*. Upon examining my specimen taken in July we found it to be *occidentalis* in the spring plumage. Several others were found in the lot of Semipalmated taken by the above named gentlemen and several were taken by Dr. Bishop and myself a week or so later. One or two of them being shot on the sand flats, I am inclined to believe that this bird is not uncommon about Monomoy in the autumn migration of Sandpipers, as it would easily pass for Semipalmated unless taken in the hand and closely examined.

John C. Cahoon.

The Herring Gull at Isle Royale, Lake Superior.

Of the water birds so common along the Atlantic coast, the only one seen on our great inland sea, Lake Superior, in any quantity, is the American Herring Gull. In June, I paid a visit to Isle Royale, whose rocky coast and outlying islands of rock form a natural haunt for gulls and loons, the former occupying a large island off the northeast extremity, and another colony nesting on a large rock north of the main island, while along the shore an occasional pair occupy small rocks jutting six or eight feet above the water.

The fishermen who arrive on the island early in the season usually gather three or four hundred fresh eggs for their own use and aside from this the nests are rarely molested. The usual complement of eggs is three, and to avoid partially incubated eggs they generally take from nests containing but one or two, such nests almost invariably producing fresh eggs, and the fishermen all concur in the belief that if the first set of three eggs is taken the pair lay another three and if these are taken, three more are laid, nine in all, when the pair become discouraged and lay no more eggs that season.

At the time of our visit the nests contained two or three young birds covered with a grayish down, white beneath, mottled light and dark on the back, and the head marked with irregular blotches of black, and occasionally an egg was found but always sterile. No attempt is made at nest building, the lichens, moss and grasses growing in any slight depression form the original basis and the accumulating excrement soon mats this into something of a nest. The loud cries of the female gull generally gave notice of a nest when located away from the main colony and the young birds constantly bobbed up their heads to look at us as we approached and as our heads appeared above one side of the rock, they would disgorge a large mass of half digested fish and slip off the rock on the other side and swim away, the old gulls keeping well out of range, but soon attracting a large number of others by their incessant cries.

While at Rock Harbor one of the party brought into camp three quarter grown gulls from a nest a short distance away, but no one had the heart to sacrifice them for scientific purposes and they were placed on a rock near the nest. The parent birds, however, did not

put in an appearance, and later in the day the three orphans were discovered and surrounded by a lot of crows. One stately fellow, after some preliminary skirmishing succeeded in killing one of them and flew to the woods on the main island carrying the victim in its bill, another soon followed while the third, after being roughly handled, slid off the rock into the water and swam away, the crows paying no further attention to him. Two or three old gulls circling around complacently witnessed the slaughter of the innocents without a protest. Inasmuch as other young on rocks near by were not attacked I concluded the crows recognize an orphan when they meet one.

Away from the nests it was difficult to get a shot at the old birds, although at a fishing station in Tobin's Bay we finally secured all we wished, and proved that gulls have no idea of number. After dressing the fish the offal was taken in a barrel and dumped in the water close to an island in the bay which soon attracted hundreds of gulls who settled on the water and fought over the choice morsels. On the approach of a boat they would keep out of range, but by landing one of the party on the island and returning with the boat the gulls would settle as before and several secured at one shot, the boat would pick these up, coming close to the island, and after returning another shot would soon be had and the strategy continued so long as any offal remained. The birds congregate in hundreds about the few fishing stations on the islands, and their incessant cry becomes tiresome when listened to from daylight until after dark.

Frank S. Daggett.

Clipping.

Joe Walker was a peculiar character. An old hunter and guide, he had seen many ups and downs (principally the latter) in his life. He had lost an eye by a Shoshone arrow, his scalp in a boxing match with a wounded grizzly, and old age pulled nearly all his teeth; but he rubbed his bald head, scratched his well eye, and mumbled out his reminiscences, however, with old time energy. An expert in many of the Indian dialects, he was often employed as interpreter by the government in its pow-wows with different tribes. So when in the fall of '73, the Chivi-Utes demanded a new treaty, Joe Walker was engaged by the agent as interpreter. Winter was

coming on and commencing early, and the Chivi-Utes were politic enough to desire armistice, at least until the green grass of next spring should put new life into their skeleton ponies. As soon as Joe had been spoken to, he drew some pay ahead and went to Salt Lake. Here he invested in a wig, an artificial eye and set of false teeth. Thus equipped, he returned to the agency with the remark that he "reckoned he'd show them Injins a thing or two not down in the Book of Mormon," and he did.

He spent most of his time trying to get acclimatized to the things before agency council came off.

Council day dawned at last bright and sunny, and about 10 A.M. the council braves came riding toward the appointed place. Then the chiefs came straggling in and took their seats in circle, solemn and grave, sullen and defiant. The agent, government commissioner, Joe, and a few whites sat together, while ranged opposite were the chiefs and braves. Old Palendo rose after an impressive silence, to make the opening speech. He accused the whites of bad faith, lauded the goodness of the patient, abused Indians, rehearsed the whole trouble and finally sat down with the usual ambiguous proposal of peace. Walker translated and upon sitting down ran his hand in under his hair, to the horror of the Indians, some of whom quietly withdrew from the circle and stood behind it with their eyes riveted on Joe's scalp. Then the agent spoke, and Joe translated again. This time he was listened to with the closest attention, and when he sat down there was a manifest interest in his next movements. This time he leaned back against a tree, closed his eyes, and after the manner of many people, trotted his teeth gently out on his tongue and then drew them back again. The younger braves had seen quite enough of this, and commenced to sidle off through the trees, while the chiefs, gritting their teeth and breathing hard, appeared to lose all interest in everything, except the watching of this phenomenon. Finally one warrior spunked up courage enough to rise, and in a very much moderated voice attempted to hasten the conclusion of the treaty. He kept one eye on the interpreter, however, and was observed to be decidedly "wobbly" in the legs. He sat down and Joe arose to translate, but that translation was never finished, for toward its close Joe's new eye pained him, and to the indescribable horror of the savages, he rolled

the offending member into his hand, wiped it on his handkerchief, and stuck it jauntily back in his head. That did settle it. With one accord the chiefs stamped for their horses and the hills, and although a month afterwards the government succeeded in establishing a treaty with the Chivi-Utes, Joe Walker was not the interpreter.

Honda.

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Brief Notes.

As Willard Dillaway was roaming through the fields Sept. 15, he espied a small hole from which protruded the head of a young adder. This was enough to excite the curiosity of any naturalist, even with a small bump. To secure it by prying was but the work of a minute, when he next discovered that it had covered an egg; as this was removed, another, and still another, till 13 spheroids lay before him. As he looked at the eleven-inch snake and the plump eggs, rather a small hen for such an oological display, so thought he. He next discovered that each egg had a small slit and that the contents were animated. Converting himself into an instantaneous, self-acting, intellectual incubator, with a small pressure he forced the contents, each one yielding a tiny squirming snakeship, about the diameter of a pencil and eleven inches long. As each snakelet was ushered into this world of sorrow it was gently laid on mother earth. For an instant it would seem amazed, when it would coil and strike and bite in a most vicious manner at the hand that had so tenderly nursed it. They are now placed upon the shelf (in spirits) and Dillaway says, "They were holy terrors."

Snakes. That reminds us of a party who a few years since were off on a fresh water fishing trip, a hilarious party of good fellows well met. As they passed along a path one of the number pointed out a small snake. The others all looked but apparently failed to discern it. The finder insisted that it was where he pointed. The others looked, first at the place, then at the man, and shook their heads in a serious manner. In desperation he picked up the snake by the tail and threw it into the face of the foremost, and was only rewarded by a blank stare. With a look of surprise and disgust he gave it up, much to the amusement of the others. Whenever he mentioned it afterwards to any of the party, it only resulted in his receiving a little advice, in an assumed kindly manner. This occurred before Rhode Island tried prohibition.

A party has just informed us that he recently killed a fair-sized Black Snake. Skinning it he cut a stick and drew the skin over it. When dry he varnished it and expects a very natty walking stick as a result.

Two small boys entered the counting room of a manufacturing company. "Say, mister, do you want to buy a snake?" "Good gracious, no; clear out." As the little fellow's countenance fell, the boss dyer, a good hearted man, suggested that the writer buy it and an experiment be made in dying. A few pennies closed the trade and a water snake three feet long, in a lively condition, was passed over the counter. A few minutes later in a small ante-room in the dye-house the act of immersing the snake in a magenta dye was performed, by no means an easy task. If you doubt it, try it. The snake wiggled and twisted and bit. It would get loose and

a grab at it would result in a magenta paw. At last a satisfactory shade was obtained and the snake rested while the baptizers washed. Neither belonged to the fold of good Baptists—but we assure friends of that persuasion that we did our duty. When dry, the snake was placed on a large plate under a glass globe and labeled "VIPER RUBEA. VERY VENOMOUS." It was then taken and placed in the office window of a prominent dealer in the centre of the town. As the passers stopped, their eye would fall on the "Very venomous" and they would send along, not caring to trust even the protection of the plate glass window. Some, more bold than others, would venture in and ply all manner of questions, which were courteously and glowingly answered by the obliging clerk. Passing out, they would return with friends and tragically describe its nature, capture, etc., and invariably add that they had never seen but a few like it(?). On one point they were unanimous, no snake with such a fierce color could fail to be venomous. As the excitement increased it became a trifle dangerous, especially as the veracity of so many was involved, and also as the sun's rays were beginning to tell on the color. It was quietly removed, and to-day if anyone should mention the Ruddy Adder in that town they would be surprised at the amount of information they would obtain from the natives.

A number of years since the writer's attention was attracted by the excited movements of a pair of Song Sparrows. They flew back and forth, twittered, darted and seemed perfectly frantic. Carefully approaching he discovered that there was a nest in the top of a small pine not over four feet from the ground. In it were three young birds, and coiled around the tree was a snake about two feet long. As the snake would raise its head to the edge of the nest the birds would dart at it and cause it to retreat. After awhile several other sparrows appeared and the attack finally ended by the snake gliding down, and before the writer could reach it, it had disappeared.

A set of eggs of the Western Meadow Lark taken at Harrison, Dk., May 12, 1886, contained two eggs of the Cowbird. They are now in the collection of A. H. Frost.

We are informed that Mr. Geo. G. Cantwell of Minneapolis, Minn., a well-known contributor to our columns, has removed to Lake Mills, Wis. We are assured that this change will not affect the preparation of the List of the Birds of Minnesota, which Mr. Cantwell has in hand, and which we hope to be able, before long, to present to our readers. Mr. Cantwell is a careful and intelligent observer, and this change will bring him among new scenes, a description of which we shall probably have in the near future.

Mrs. Dr. Mason of Calais, Me., heard a noise in a horse-chestnut tree, at the front of her residence, and discovered perched there a large Hawk which she, by means of her husband's landing net, succeeded in capturing. He is now alive and well, in the hands of Mr. C. F. Newell, the taxidermist, and has become so tame that he will come and take meat from Mr. Newell's hand.

Set of six eggs of Least Bittern taken at Framingham, Mass.

Two Black Terns have been taken at Framingham, Mass., this season.

A set of three eggs of the Purple Finch was taken at Dorchester, Mass., September 10th, by Charles Ward.

The Mystery Solved.

Ye Editor lay on his lonely bed,
 His thoughts would not let him rest,
 The "can't bes" and "why nots" were filling his head,
 And swelling his heart in his breast.
 And as he tried vainly to quiet his brain,
 With thoughts more conducive to peace
 He remembered some letters, which had come by the
 train,
 Too late to be read at the office.
 So he rose from his couch and lighted his lamp,
 And opened the first "*billet doux*,"
 And noticed the writer did not send a stamp
 To return if not checked "I approve."
 These words met his eye: "I have shot 20 shrikes
 And examined their stomachs with care.
 They all contained insects, bugs, and the like,
 But of birds not a feather or hair."
 The next, strange to say, was of tenor the same
 A long list of *Lanius*, taken in crime
 From another poor mortal, thirsting for fame,
 Who thought to procure it at some future time.
 He shot all his, while capturing birds,
 Their stomachs contained their remains,
 They all held Sparrows, and other small birds,
 On this he rested his claims.
 Now the editor, he was ambitious too,
 He wanted his share of the fame;
 He wanted to see at some future time
 An alphabet tacked to his name.
 So he said to himself, I will settle this thing,
 I'll make two sub-species of these;
 I'll take Mr. A.'s, which feed upon bugs
 Which they glean from the ice-covered trees,
 And call it the *L. b. insec-ti-vorus*,
 And the other will then follow on,
 It shall be the *L. b. ornitho-vorus*,
 And the thing be regarded as done.
 Now all ye august and mighty A. B.'s
 Who hold our fates in your hands,
 Assemble your conclaves, and get out your "Keys"
 And loosen the tightly drawn bands.
 Regard this poor mortal thus thirsting for fame,
 He's anxiously waiting the Tail
 Which a letter will bring, to affix to his name
 By the next "U. S. S. D." mail.

BY ANOTHER *

[This poem (?) is like the Shrikes, mighty poor me(a)tre.]

Correspondence.

Editor of O. & O.:

I think Mr. Alden Loring's curious double Oriole's nest (described in your June number) is an instance of a bird's attempt to build in the same place where her brood was raised the year before. The new nest was probably fastened to the other as a matter of convenience. Last year I found what seemed at first a whole colony of Oriole's nests, built close together on hanging branches. Looking closer I saw there were five nests with a gradation in looks from the oldest dilapi-

dated structure down to the last nest, which was new, and contained eggs. They were all somewhat beyond the reach of a person on foot, and the bird (or birds) had perhaps nested there undisturbed for years.

However, I am very chary of expressing any positive opinion on the freaks, so called, of that strangely intelligent workman, the Oriole. I have no doubt they have their reasons for things, which we know little about.

I have a nest of Bullock's Oriole (*Icterus bullocki*) taken May 7, from pendant twigs forty-four feet up in a eucalyptus tree, which is a puzzling curiosity. The nest proper is built chiefly of horse-hair, in the usual fashion, but the singular thing about it is, that woven to one side of the top is a long irregular flap, built also of horse-hair with fibres of rope and string. This remarkable appendage formed in the tree a sort of platform, at a slightly oblique angle, stretching back from the nest. Its length is 9½ inches, and its shape somewhat like that of a decanter, with the larger part next the nest. From this platform there is a gradual slope into the nest, very like a stair-case, with a protecting bulwark on the side, two inches high, which was evidently built on with the platform, after the completion of the real nest.

That the mother-bird had an object in building her nest as described I feel certain. What was the trend of her thought (?) in its construction I leave the reader to determine. I have my own opinion. *Harry R. Taylor.*

Alameda, Cal., July 17, 1889.

Editor of O. & O.:

I received your postal and will give you any information I can. On the afternoon of August 15, while riding through the town of Marshfield, I saw a bird fly from a tree, which from description, I judged to be a Mockingbird, and thus it proved. I immediately started in pursuit, and while climbing a fence three others started from some bushes ahead of me. I thought I saw another one to my left, but was not certain. They were rather shy and kept hidden in the bushes. I followed them, starting first one and then another, for some time, and finally obtained a shot at one and killed it. It was a young female, having the under parts speckled.

This bird as well as some of the others must have been reared near by there.

I will look sharp for them next season.

H. A. Torrey.

Rockland, Mass.

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A List of the Birds of Colorado.*

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146. *Melanerpes erythrocephalus* (Linn.). Red-headed Woodpecker. Summer visitant; tolerably common. This species is far more common in the northern portion of the state than elsewhere, although I found it common in the vicinity of Fort Lyon in south-western Colorado. Reaches 10,000 feet in spring and summer. Eggs four to six, sometimes seven.

147. *Melanerpes torquatus* (Wils.). Lewis's Woodpecker. Common in the pine forests throughout the state. Its nest is generally high up in a large pine, stubs being favorite sites for its abode. I have often observed large numbers upon the high branches sitting motionless until some passing insect would arouse them, which they captured on the wing. From my observations this is its principal method of feeding, as I do not remember of ever having seen it searching for food on the limbs and tree trunks as the Woodpeckers do. While on the wing it would easily be mistaken for a Brewer's Grackle: its flight is generally steady, and only seldom will it be seen to fly in long festoons like its relatives. Eggs are four and five.

148. *Melanerpes carolinus* (Linn.). Red-bellied Woodpecker. Entered in Drew's list upon Mr. Ridgway's authority. Not observed by any of the members, and it must be rare if occurring at all. There is no reason, however, why it should not wander into the eastern part of the state, and with more observers this would no doubt be proved to be so. Eggs four and five, commonly.

149. *Colaptes auratus* (Linn.). Flicker. Common along the streams in eastern Colorado. Gives way to *C. cafer* at the eastern foot hills of the mountains.

150. *Colaptes auratus hybridus* (Baird.). Ridgw. Hybrid Flicker. Dropped from the A. O. U. list. Found commonly along the eastern foot hills during the migrations, the centre of abundance being in Wyoming, where it is found in every conceivable plumage. In the Big Horn range I found it mated with *C. cafer* and secured two sets of eggs, one of four and one of seven; in both instances the parent birds were shot. The first set, however, I do not believe complete.

151. *Colaptes cafer* (Gmel.). Red-shafted Flicker. Common in the mountains and westward. Habits similar to *auratus* but is equally abundant in the pines and along the streams. One of the earliest migrants, coming with the first warm wave in southern Colorado and remains. Reaches 12,000.

152. *Phalaoptilus nuttali* (Aud.). Poor Will. Reported by Anthony as summer or transient visitant; rare. Reaches 8,000 feet according to Drew. I consider it very rare as I never saw it in the state, and I know of no authentic case of its eggs having been taken.

153. *Chordeiles virginianus henryi* (Cass.). Western Nighthawk. Summer visitant; common. Reaches 11,000 feet to breed. Eggs two, deposited upon the ground with generally no nest whatever. A new variety* has been described which should be found in the eastern part of the state, and those members having opportunities should look carefully for it. I hope soon to be able to include it in this list.

154. *Cypseloides niger* (Gmel.). Black Swift. Reported by Drew from San Juan County. Found from 9,000 to 13,000 feet.

155. *Micropus melanoleucus* (Baird.). White-throated Swift. Also reported by Drew from

* "Chordeiles virginianus sennetti" (Couch.), Chamberlain. "Chordeiles popetue sennetti," Cones, Auk, V, Jan. 1888, p. 37. "Chordeiles virginianus sennetti," Chamberlain, Systematic Table of Canadian Birds, 1888, Appendix A, p. 14. Hab. Dakota to Texas, in any treeless country.

* Continued from page 65.

same county, and I found them in La Plata County also. Mr. Aiken noted it at Cañon City and Mr. Allen at the "Garden of the Gods."

156. *Trochilus alexandri* (Boure and Muls.). Black-chinned Hummingbird. Noted by Drew and myself. Very abundant in southwestern Colorado.

157. *Trochilus platycercus* (Swains.). Broad-tailed Hummingbird. Reported by Anthony as an accidental visitant. Reaches 13,000 feet in summer according to Drew, and breeds from 4,000 to 11,000 feet. I enter it as a summer visitant; tolerably common. (La Plata County.)

158. *Trochilus rufus* (Gmel.). Rufous Hummingbird. Noted by Drew at 15,000 feet. Breeds; rare (?).

159. *Tyrannus tyrannus* (Linn.). Kingbird. Common summer visitant east of the mountains.

160. *Tyrannus verticalis* (Say.). Arkansas Kingbird. Common summer visitant from eastern portion into the mountains and up to 7,000 feet. I saw two individuals only at 8,500 feet.

161. *Tyrannus vociferans* (Swains.). Cassin's Kingbird. Observed by Drew, Beckham at Pueblo, and by Messrs. Allen and Brewster, the latter gentlemen saw it in company with the preceding.

162. *Myiarchus cinerascens* (Lawr.). Ash-throated Flycatcher. Reported by Capt. Thorne from eastern Colorado, also by Drew and Brenninger. The eggs are usually five, but four and six are often found. Found as far north as the Black Hills in Wyoming. Breeds in Colorado at 7,000 feet.

163. *Sayornis saya* (Bonap.). Say's Phoebe. Summer visitant; common in plains districts, tolerably common near the mountains. Breeds in small numbers as high as 8,000 feet. Nesting habits similar to *S. phoebe* (Lath.), but eggs larger.

164. *Contopus borealis* (Swains.). Olive-sided Flycatcher. Summer visitant and tolerably common in mountainous districts where it breeds at 12,000 feet. I find many quotations of this species in Colorado, but I have not been informed if its eggs have been taken. The eggs in my collection are not with me, so I am unable to give a description of them.

165. *Contopus pertinax* (Cab.). Coues's Flycatcher. Reported by Capt. Thorne from the plains. Rather far north for this species according to the habitat given in the A. O. U. check-list. I enter it pending future investi-

gation as a rare straggler, although I consider it doubtful.

166. *Contopus richardsoni* (Swains.). Western Wood Pewee. Transient visitant; tolerably common. (Anthony). I found it a summer visitant; breeding at 9,000 feet. Drew reports it as high as 11,000 feet in the breeding season. Nest placed in the forks of saplings in pine gulches and dry water courses. Eggs similar to the eastern bird.

167. *Empidonax difficilis* (Baird.). Baird's Flycatcher. Reported by Capt. Thorne from near Fort Lyon, as *flaviventris*, which is no doubt a case of mistaken identity. The western variety is the form found in Colorado. It is reported by Drew as breeding from the plains up to 10,000 feet. Mr. D. D. Stone* reports the taking of its eggs in the state, I quote him. "July 4, one set, four eggs, fresh. Nest in bank of railroad at Murphy, two and a half miles below here (Denver). Ground color creamy white, with fine dots of black and lilac, and larger spots of lilac, generally distinct, but in some places blended together and tending to form a ring about the larger end. Average, .60 x .70. Nest mainly of moss interwoven with rootlets, grass and small pieces of tow string." One of the parents of this set was identified by Mr. Ridgway. Mr. Stone also records another set of three eggs which were found in a "cut bank of hard wash, in a small cavity, almost entirely of roots, lined with a small quantity of grass. Outer diameter, 3½ inches; height, 2 inches; inner diameter, 1¾ inches; depth, ¾ inch.

168. *Empidonax pusillus* (Swains.). Little Flycatcher. Summer visitant; tolerably common; breeds. Reported by Capt. Thorne and Drew. None of the other members have observed it. Eggs, four.†

169. *Empidonax minimus* (Baird.). Least Flycatcher. Reported by Drew at 8,000 feet. This is the only record I am able to find. It has been found in Kansas, Nebraska, and Wyoming, and probably occurs rarely in Colorado, although out of the habitat given it in the A. O. U. code.

170. *Empidonax hammondi* (Xantus.). Hammond's Flycatcher. Reported by Drew. Summer visitant; breeds from plains to 8,000 feet. It is very likely to occur commonly on the western slope of the mountains and in the northern portion of the state. It is somewhat strange it has escaped notice so entirely.

* O. & O., Vol. IX, No. 1, p. 10, Jan. 1884.

† Mr. Trippé observed *pusillus* and called it a bird of the plains. [C. F. M.]

171. *Empidonax obscurus* (Swains.). Wright's Flycatcher. Spring and summer visitant; common. Mr. Trippe found it abundant and breeding at Idaho Spring. It breeds from 7,500 to 10,000 feet.

172. *Otocoris alpestris leucomelaema* (Couch). Pallid Horned Lark. Winter visitant; marked by Anthony as abundant. Drew gives it as breeding at 13,000 feet, and a bird of high altitudes the year round. If it can be considered a resident at all it is probably in small numbers, a fact borne out by Mr. Trippe's* notes, who says they are abundant on the plains in winter; it enters the mountains in the spring and breeds up above timber line.

173. *Otocoris alpestris arenicola* (Hensh.). Desert Horned Lark. Summer visitant; abundant. Found from the plains up to 7,000 feet, and breeds.

174. *Pica pica hudsonica* (Sab.). American Magpie. Resident; abundant; breeds. This bird is well known. Some discussion has taken place in regard to the holes left in the nest for entrance as well as for the accommodation of its long tail. I have examined several hundred nests, but the hole for the tail I have never yet found, in many instances, however, I have observed a hole for entrance and exit, but eight out of every ten nests examined the birds pass through spaces just above the nest proper, and the sticks of which the dome is built simply have the appearance of being rather more loosely put together at this part of the structure. I am not fond of public argument but I state simply my experience, even if it differs greatly from others. However, I will pay a good price for a nest with the celebrated two holes, and I don't believe there is one in existence, if so I would like it.

175. *Cyanocitta stelleri macrolopha* (Baird.). Long-crested Jay. Resident and abundant in south-western portion of the state. Reported by Anthony as a winter visitant; tolerably common. This refers no doubt to the vicinity of Denver. This bird is truly a resident of the state and simply makes a migration to lower altitudes during the winter. Some years they are abundant where the year before not one was found, and *vice versa*. The nest is placed in pine trees or in bushes.

176. *Aphelocoma woodhousei* (Baird.). Woodhouse's Jay. Observed by Drew and Brenninger, and by myself in La Plata County. A noisy bird and not very pleasant company.

Their movements are regulated somewhat by the food supply, even more so than the preceding.

177. *Perisoreus canadensis capitalis* (Baird.). Rocky Mountain Jay. Resident and keeps near timber line the year round (Drew). I found this species at 10,000 feet and not lower in La Plata County. It often gets very tame at the mining camps, but the miners suffer from his company as he will steal anything which lies about, rivalling even the magpie in this.

178. *Corvus corax sinuatus* (Wagl.). American Raven. Resident at high altitudes and breeds, going down to below 8,000 feet in winter, although some stay in the mountains. Mr. Aiken's statement* that "the Ravens of Colorado are chiefly *C. cryptoleucus*" is erroneous, as the fact is entirely the reverse, except in certain localities on the eastern slope of the mountains, and at low altitudes.

179. *Corvus cryptoleucus* (Couch.). White-necked Raven. Not found above 5,000 feet in winter according to Drew, and Mr. Trippe says "it is common along the edge of the plains in winter, not observed during spring and summer." This makes me think it must breed higher than Drew notes, viz.: from 4,000 to 6,000 feet. That it is a resident cannot be doubted. Anthony says in speaking of this species at Denver "This Raven was very abundant here a few years (ten or twelve years) ago, but have not seen it lately."

180. *Corvus americanus* (Aud.). American Crow. Noted by Drew, Brenninger, and Anthony. The first named gentleman gives it as breeding at 7,000 feet. Anthony records it as a resident; abundant. I also observed it in La Plata County, and also in Wyoming, in this state at 8,500 feet.

181. *Picicorvus columbianus* (Wils.). Clarke's Nutcracker. Resident; abundant; breeds up to 12,000 feet and reaches 14,000 in autumn. Not as common now as it has been in years past. Breeds in April in La Plata County. Not found below 7,000 feet.

182. *Cyanoccephalus cyanocephalus* (Wied.). Piñon Jay. Resident; abundant. Breeds in the piñons as high as 10,000 feet (Drew), reaches higher altitudes in the autumn and its abundance is regulated by the food supply. I found it breeding just below 8,500 feet, but secured but one egg which I broke by a fall from the piñon in which the nest was placed. This egg was much like those of Brewer's

* See Birds North West, p. 231.

* American Naturalist, Vol. VII, p. 16.

Blackbird but larger. It was so badly broken that I could not mend it. In Wyoming I found a nest which I think belonged to this species, it also contained but one egg and in both cases the nests had been abandoned. In 1887 I was too late for their eggs, but found a nest containing four young, well grown, but without a feather, and the bodies were black, a thin down was upon the neck, and on the outer side of legs, also where the tail feathers should start. The eggs must be deposited the first week in April or last of March in La Plata County, but probably later in more northern localities. The nest should be looked for in piñons upon the sunny side of rocky mesas, on horizontal limbs.

183. *Dolichonyxoryzivorusalbinucha* (Ridgw.). Western Bobolink. Drew seems to be the only one to have observed this variety of the well-known eastern bird, and he enters it as *oryzivorus* proper. The eastern Bobolink may occur in the eastern part of the state, while the western variety occurs in the western portion. At present, however, I deem it best to enter the variety as a summer visitant; rare.

184. *Molothrus ater* (Bodd.). Cowbird. Summer visitant; common. Not found above 8,000 feet. This parasite is too well known already. Almost the only good thing about them is that they make a good stew, or pot-pie, in the fall when they are found in large flocks. Perhaps civilized, eastern people, would not relish the pot-pie, but a few weeks, perhaps months, in camp would prepare them to eat most anything, and as variety is said to be "the spice of life," so will a Cowbird pie make a supper relishing, after a long day's tramp.

185. *Xanthocephalus xanthocephalus* (Bonap.). Yellow-headed Blackbird. Summer visitant; common. Breeds from the plains up to 7,500 feet, in communities with the next. The males do not "desert their mates" as has been stated, as one may prove by invading their domains. However, it is the female who shows anxiety for her eggs, the male generally hanging to the reeds and flags, motionless.

186. *Agelaius phoeniceus* (Linn.). Red-winged Blackbird. Summer visitant; common in the plains districts. Anthony says "a few are resident." I found them common in south-eastern Colorado, but saw none in La Plata County. Reaches 9,000 feet, according to Drew, and breeds 1,000 feet lower.

187. *Agelaius tricolor* (Nutt.). Tricolored Blackbird. The occurrence of this species

rests upon my record* from La Plata County. I can only add here that I never saw these birds but once, viz.: February 3, 1887.

188. *Sturnella magna neglecta* (Aud.). Western Meadow Lark. Reported by all the members. Reaches 10,000 feet, and breeds sparingly at 8,500. Most abundant on the plains. Anthony says "a few are resident." Summer visitant; abundant.

189. *Icterus spurius* (Linn.). Orchard Oriole. Summer visitant; breeding from the plains up to 6,000 feet (Drew). Mr. Allen† also records it.

190. *Icterus galbula* (Linn.). Baltimore Oriole. Summer visitant from the mountains eastward. I found it very common at Ft. Lyon, nearly every tree having from one to three nests.

191. *Icterus bullocki* (Swains.). Bullock's Oriole. Summer visitant; common in western part of state. Reaches 10,000 feet, and breeds. I observed them in La Plata County, although I believe I omitted it from my list of birds of that county.

192. *Scolecophagus carolinus* (Mull.). Rusty Blackbird. The only record is that of Anthony‡ of North Denver. Mr. Smith, Jr., says, "In the collection of Mr. Anthony is a pair of Rusty Grackles which he shot December 17, 1883. They were in a piece of swampy ground near Denver, and were the only ones seen." Mr. Anthony writes in regard to the same, "Two were shot by me on December 17, 1883, the only Colorado record." I enter them as transient visitants; rare. They are not known to breed south of northern Montana. Mr. Holden's record of this species breeding in Wyoming is undoubtedly wrong, as I never saw them in that territory except in migration although they linger for a while during the fall. Reaches 13,000 feet, and may breed at high altitudes.

193. *Scolecophagus cyanocephalus* (Wagl.). Brewer's Blackbird. Summer visitant; common. Breeds abundantly both on the ground and in bushes, generally scrub oak, and is always found in little communities of from five pairs up. After the young are on the wing it collects in large flocks, and the fields, corrals, and yards are alive with them. After feeding they resort to the roofs of large buildings or trees, where they rest and sleep until hunger spreads them about. The eggs are four and

* See O. & O., Vol. XII, No. 7, pp. 107-108, 1887, also O. & O., Vol. XIII, No. 5, p. 75, May, 1888.

† Bull. M. C. Z., Vol. III, No. 6, p. 178, also *I. galbula*.

‡ Ank. Vol. III, No. 2, p. 284, 1886.

five, bluish-green, speckled and splashed with chocolate brown of different shades.

194. *Quiscalus quiscula aeneus* (Ridgw.). Bronzed Grackle. Summer visitant; abundant. This species is most abundant during migration, the bulk going farther north to breed. Mr. Drew fixes its highest limit at 5,000 feet, but I found it at 7,000 in Wyoming and it probably reaches this altitude in Colorado. Nest is placed in holes in trees, especially old Flicker holes and hollow stubs. This is the rule in the west; I never found a nest in any other situation, while in the eastern states they are generally placed on limbs of the pines.

195. *Coccothraustes respiciens* (Coop.). Evening Grosbeak. Observed by Drew, who records it from 5,000 to 8,000 feet. This is another bird which I can add to my La Plata County list. May 17, 1887, below Fort Lewis, found a flock of at least thirty of this species, and secured one specimen, the rest taking wing and were not seen again. They kept to the tops of the cottonwoods entirely. It would be well to look out for this bird, as it will no doubt be yet found breeding in the mountains at 8,000 or 10,000 feet.

196. *Piicola euncleator* (Linn.). Pine Grosbeak. Reported by Drew and Brenninger. Breeds up to 11,500 feet, and is resident. In Colorado it only breeds in the mountains, but is found on the plains in winter. I quote Mr. D. D. Stone.* "While on my way to a Pipit's nest, a pair of Grosbeaks (Pine) commenced flying about, uttering their peculiar notes. Not having time to watch them and the female being the handiest, I shot her and went on. The *gula* being unusually puffed out, I examined it and found it was filled with berries and small green larva. Evidently they had young near by. Since then I have seen several pairs ranging along near timber line."

197. *Carpodacus cassini* (Baird.). Cassin's Purple Finch. Resident, common in winter, but the bulk go north to breed. Breeds up to 10,000 feet. The nest is placed in pine trees, which they frequent mostly. In winter they retire to the plains while many pass south to a warmer climate.

198. *Carpodacus frontalis* (Say.). House Finch. Reported by nearly all the members. Resident; common, breeds from 4,000 to 8,000 feet (Drew), but I am of the opinion that its breeding range is rather above Mr. Drew's figures.

199. *Loxia curvirostra minor* (Brehm.). American Crossbill. Resident in the mountains, resorting to the plains in winter, tolerably common. Its abundance is regulated by the food supply to some extent, although it is a species of roving habit, and is constantly on the go, excepting during the breeding season, which is generally in winter. All the Crossbills share this habit in common.

200. *Loxia curvirostra stricklandi* (Ridgw.). Mexican Crossbill. The eggs of this species taken by me in La Plata County are not distinguishable from those of the preceding, being pale green, thickly spotted with light brown. I find that the ground color in my specimens has faded, being now nearly white, with just a greenish tint. I obtained several sets of the European Crossbill, and the eggs hardly differ, although the ground color of the Mexican is now lighter. The nest taken was in a pine tree, and although I knew there were others in the vicinity I could not find them. The female built her nest of grasses with a few pine needles added, and all the material was picked up directly under the tree in which it was placed. Saw three birds collecting grass and flying into the trees in the vicinity. Contrary to Mr. Bicknell's experience my nest was hidden from view in a locality where concealment was of no use, unless the birds knew a collector on sight.

201. *Loxia leucoptera* (Gmel.). White-winged Crossbill. While this bird is tolerably common in Wyoming it is rare in this state. Drew is the only one that has noticed it. It is given in his list at 10,000 feet in winter. A winter visitant, and probably not found except in the mountains.

202. *Leucosticte tephrocotis* (Swains.). Gray-crowned Leucosticte. I quote Mr. J. A. Allen,* who says "common above timber line on Mount Lincoln, breeding among the snow fields. The common form of *L. tephrocotis* appears to be abundant in winter throughout the mountains of Colorado, where I have seen specimens collected near Denver." Mr. Anthony records it as a winter visitant near Denver, and it, like many of our Colorado birds, makes a vertical migration in place of a latitudinal one, at least a few do, although the bulk go to more northerly localities to bring forth its young.

203. *Leucosticte tephrocotis littoralis* (Baird.). Hepburn's Leucosticte. Winter visitant; common on western, rare on the eastern slope of

the mountains. I think it will be found to be a resident as well as the preceding as I have seen them both in spring and fall and believe they must go up into the mountains to breed.

Charles F. Morrison.

(To be continued.)

Notes on a Few Nests Collected at Cornwall, Vt., in the Spring of 1889.

Red-bellied Nuthatch (*Sitta canadensis*). Collected May 30th. The nest, which was in a dead maple stub, ten feet from the ground, was placed in a deserted Woodpecker's hole in which, in 1888, was a nest of the Downy Woodpecker (*Dryobates pubescens*). It was composed of fine strips of bark and contained seven eggs, incubation well begun. The old bird was easily started from the nest by rapping on the tree, but returned in every instance within ten minutes, hopping from branch to branch, and then darting down and poising for an instant in front of the hole, went inside.

White-rumped Shrike (*Lanius ludovicianus excubitorides*). Collected May 22d. The nest was in a pine tree eighteen feet from the ground, and eight feet out on the limb from the trunk of the tree, and contained six eggs, incubation well begun. The nest was not more than ten rods from several thorn bushes, but they had probably taken the pine tree as a more secure place, as I knew of several Shrikes' nests being taken from these same thorn trees in 1888.

Bartram's Sandpiper (*Bartramia longicauda*). Collected May 26th. The nest was simply a little hollow in the ground, and contained four fresh eggs. The old bird uses considerable art to decoy the intruder from her nest.

Chestnut-sided Warbler (*Dendroica pennsylvanica*). Collected June 6th. The nest, which was in a low swampy place, was three feet from the ground, and contained four fresh eggs.

Maryland Yellow-throat (*Geothlypis trichas*). Collected June 4th. I discovered the nest on May 26th, by watching the ♀ carry materials with which to build it. On May 30th the nest was completed, and on June 2d it contained three eggs, and on June 4th it contained a full set of five eggs. It was not a difficult matter to locate the nest by watching the old bird when building it, but after she had her set completed it was not so easy, as in going and coming from her nest she threaded her way

through the tall grass, all the time keeping well hidden.

Prairie Horned Lark (*Otocoris alpestris pratincola*). Has been previously described in the June, 1889, number of the O. & O.

Woodcock (*Philohela minor*). Collected May 4th. The nest was situated in a small piece of hard woods, ten rods from a stream. It was a slight affair made by hollowing out a place in the leaves, and contained four eggs nearly ready to hatch. The old bird allowed me to nearly tread upon her before she flew.

Blue Jay (*Cyanocitta cristata*). Collected May 11th. Nest in a small elm tree seven feet from the ground, and contained five eggs slightly incubated.

Indigo Bunting (*Passerina cyanea*). One nest of this species, which I found on May 30th, contained four eggs. The nest, which was situated in a low, swampy place, was hung to the tall brakes, and was a much more neatly constructed affair than the bird usually builds. It was not as bulky as their nests usually are, and was built more after the style of a Vireo.

Bobolink (*Dolichonyx oryzivorus*). Collected June 1st. The nest was well hidden in the tall grass, and contained seven fresh eggs. I flushed the old bird while driving through the meadow, and several times that I frightened her off she rose up and flew across the meadow, without trying in any way to decoy me away from her eggs.

Yellow-billed Cuckoo (*Coccyzus americanus*). Took first nest June 4th, which contained five eggs nearly ready to hatch. The nest was placed two feet from the ground in a bush. The second nest I collected on July 10th, and it contained two eggs, incubation well begun. This nest was very small, and would not have held more than three eggs. It was placed in a small bush fifteen inches from the ground.

Field Sparrow (*Spizella pusilla*). Collected July 10th. Nest was situated by the road side in a small apple tree bush, twenty inches from the ground, and contained three eggs nearly fresh.

Yellow-winged Sparrow (*Ammodramus savannarum passerinus*), which is by no means a common bird in this locality, and I consider it quite a rare breeder, as this is the first and only nest that I have any notes on from this section. Collected July 17th. The nest which was a very slight affair was situated on side hill, well concealed in the tall grass. It was composed of a few dried grasses, barely enough to keep the eggs from the ground, and contained five eggs nearly ready to hatch.

C. H. Parkhill.

Nesting of the Yellow-throated Warbler, at Raleigh, N. C.

The 25th of April, 1889, was not at all a promising day, and seemed much inclined to rain, but as the weather didn't come to any conclusion I took my gun and went out to do a little collecting. As the weather seemed unsettled I went into a tract of medium sized pines quite near town to see what I could come up with. Yellow-throated, Pine and Prairie Warblers all stayed there, as well as hosts of Chipping Sparrows, so I was sure of something to look for anyhow. On entering the pines I started in to look for Yellow-throats but couldn't at first find any, but hearing a ♂ Prairie singing, the other side of an empty mill pond on the edge of the pines, I crossed said pond and bagged him.

On coming back I heard the well-known song of my old friend, the Yellow-throat (when writing or speaking of "Yellow-throat" I always refer to *D. dominica*, *G. trichas*) I always think and speak of as merely "Maryland"), and on investigating found a pair together. Well, I watched that pair and weakened my eyes staring at them as they loafed about from pine to pine, but they never gave any signs of building, or of interest in anything except catching bugs and pruning their feathers, and I began to think it was *no go* as on previous occasions. At last, however, they loafed back into a pine near by where they came from, and while watching the ♀ I caught sight of a nest on a limb looking much like a Pine Warbler's, but as no bird was on the nest and no Pine Warbler was near by I didn't think it likely.

On climbing the tree to look at the nest I found it was smaller and looked much grayer outside than a Pine Warbler's, and also that the sides were attached to small twigs. The birds, however, showed no interest in the matter, and the nest had no eggs in it, so I left in doubt as to whether I had found a prize or not.

Three days after, on the 28th, I took my brother to look at the nest to see what he could make of it. He reported no eggs, but while looking at the nest the ♀ Yellow-throat came into the pine and moved uneasily about, plainly showing she owned the nest, and so we went away satisfied.

On May 4th, we again visited the nest and took therefrom a set of four fresh eggs; the ♀ kindly staying on the nest long enough for absolute identification. This was our only set

taken this year, although three more pairs nested in those same pines, and at least a dozen pairs in our whole collecting grounds.

As this nest differed so much from one found last, I give some particulars of both.

Nest taken May 4, 1889, 20 feet high in a pine tree, placed on a horizontal limb, 7 feet from trunk; the nest small, frail and neat, the sides being firmly attached to small twigs. My brother who took the nest said it could not have been taken except by hand on account of its frailty.

Nest taken May 11, 1888, 65 feet high, 12 feet from trunk; built among the twigs at the end of a pine limb. The nest had to be torn from the twigs with grappling hooks, and it took a great deal of tearing too, yet it came to hand very little injured. This nest was larger and deeper than a Pine Warbler's, and was composed of grape-vine bark, horse hair and white chicken feathers. This only contained one egg.

The nests of this bird seem to be quite hard to find. One point is that the male bird does not appear to sing in the neighborhood of the nest much, another is, I am afraid I was not quite early enough in looking them up this year; the only nest found was *built*, and I was then looking for birds *building*.

C. S. Brimley.

Raleigh, N. C.

A Collecting Trip to Lac-qui-parle County, Minn.

Having collected for five years in the vicinity of Minneapolis, and securing during that time about all the varieties of birds common to the locality, I longed for a new field where I could find a different class of birds.

Before I had collected long at Minneapolis I soon found out that it was a poor place for Plover, Sandpipers, or waders of any sort, although rich in almost all the other families. It was with the object of adding some of the order *Lanioculæ* to my collection that I decided to make a trip to Lac-qui-parle Co., Minn., having heard through my father, who was in the grain business there at the time, that I would have my hands full should I come down. So on the 11th of May, 1889, I boarded a train equipped with the necessary gun, arsenic, dust shot, etc., leaving my water spaniel at home, a fact I afterwards regretted, and was soon on my way to Madison, the principal town in the county. I would not arrive there till four

o'clock in the afternoon, so I accordingly made myself comfortable, and with the window up I took in the country as we flew by, and jotted down things of interest.

About the first thing that attracted my attention was a fine Loon sitting majestically on her nest out in the clear water of a pond, although the train passed within thirty yards of her, she did not appear the least concerned. On my return, three weeks later, she was still there with her mate swimming close by. As we passed the town of Waconia I noticed a female Robin sitting on the nest built on a protruding stick of a wood-pile, but this is no more odd than their building under the eaves of a house and on the top of a small stump, having seen nests in both situations.

A little later, as we neared a small town, a Red-tailed Hawk rose off its huge nest in plain sight. Surely, I thought, no collector lives there. At noon we stopped at a place for dinner, and after that over, there was still about ten minutes before the train started, so I went down to some willows close by and soon found three sets of Bronzed Grackles.

As yet the country passed through was not unlike that of Minneapolis, hilly and woody, but soon after dinner we struck the level prairie. Quantities of birds were now constantly in sight, the fields were teeming with Bobolinks. Western Meadow Larks, Sparrows of various kinds, Field Plover and Killdeers are very abundant. From every alkaline pool Sandpipers rise in clouds as the train passes. Large troops of Yellow-headed Blackbirds and flocks of Ducks cross the prairie *en route* from slough to slough. An occasional Prairie Hen rises out of the grass and is off like the wind, or a Short-eared Owl flops out of a marsh and soon has an army of small birds worrying after him. Marsh Hawks are quartering off the ground in search of their favorite food. On the whole it forms a grand picture, I want to get out among them. I wonder if it will be like that at Madison. This continued all along. Occasionally I would get a glimpse of a strange bird; I could only satisfy myself by saying I would get one like it at Madison.

Well, I arrived at my destination in due time, and found Madison to be a thrifty young prairie town of about 500 inhabitants. I was met at the depot by my father, and after being given the freedom of the store I busied myself in rigging me up a "shop" in the back room where I could "peel" my birds. After supper I took a walk into the country which I found very level; wherever there was a depression

you were sure to find a marsh; there were no trees around except where they had been set out around the farm houses. I flushed numbers of Le Contes Finches from the tall grass, and the marshes were filled with the cries of the retiring birds. That night I made arrangements to go out in the morning with my father and in the afternoon with the section boss on a railroad velocipede.

My father and I started at seven o'clock the next morning and went out upon the railroad a short distance. The first bird secured was a Pectoral Sandpiper which rose from a pool of water near the track. Before I had put my bird away safely two more came flying overhead, and were cut down nicely by my father at a shot, proving he had not lost the "knack," not having shot a gun for several years. I next got a pair of Field Plover, one sitting and the other as he started off. Upon skinning the female I found a soft egg in her, proving that the breeding season had commenced. Upon shooting a Le Contes Finch on the edge of a marsh, numbers of Duck rose out and circled around; among others I identified Mallards, Gadwalls, Shovellers, Pintails, Canvasbacks, Redheads, Blue-wing Teal, Wood Ducks, and Ring-necks, all of which were evidently breeding. Black Terns and Yellow-headed Blackbirds were in abundance and breeding.

From here we went to a large pasture, and I was agreeably surprised to find Chestnut-collared Longspurs in numbers, walking around on the ground or mounted high in the air singing for all they were worth. They were mated and evidently breeding, a fact I found to be true soon afterwards, collecting a fine series of nine sets of their eggs, a description of which I intend to give the readers of the O. & O. at a later date.

The birds were in fine spring plumage so I collected a few pairs. Every little while large flocks of Sandpipers would fly overhead, flock after flock would go by, all headed in the same direction, which gave me the idea there must be a large marsh in that direction. Soon a large flock of Golden Plover went by with a loud whistle of the wings; fine black-breasted fellows they were, how I wished they were in range. On our way back I secured a couple more Le Contes Finch.

When I reached home I went right to work on the birds and had them put up before dinner. In the meantime I took a "sling" with some coarse shot and went over to a grove of young poplars that had been planted. It was alive with birds, being the only grove in

the neighborhood, the most plentiful being Harris' Finch; and by shooting a good many times at them I succeeded in killing four. I also noticed there Yellow-rumped, Black-poll, Yellow, and Magnolia Warblers, Redstarts, Wilson's and Gray-cheeked Thrushes, Rose-breasted Grosbeak, Water Thrush, Red-headed Woodpecker, and others. What could attract such birds as these to a grove like that I cannot see, also how did they find it? I had just time to skin my Finches when dinner was ready. Soon after I found the section boss, and we started down the track on the velocipede, which is a marked improvement on walking, let me remark. We went out about three miles to a large swamp he knew of, which proved to be about a mile across with weeds growing rankly all through it.

At the discharge of a gun birds rose in myriads and literally filled the air. I don't believe I ever saw so many birds at once and such a variety. Duck and Geese in thick masses were flying excitedly about; strings of Swans and Pelicans left the marsh, Night Herons in long V-shaped flocks followed them, bunches of Sandpipers flew by with a plaintive "peep," but what interested me most were a lot of large black-headed Gulls flying about; they came nearer and I identified them by their red bill as the rare Franklin's Gulls. How I longed to get one; they are flying all about uttering their shrill peculiar cry; presently one comes quite near, "a little closer, old fellow, and you're mine," I say, but he suddenly wheeled and went back over the marsh, but I sent a charge of No. 5 after him, and had the satisfaction of seeing a few feathers start, but he continued to fly till about 150 yards from shore, when he suddenly closed his wings and fell into the rice. In a minute there were a hundred or more of his fellows hovering over him. If I only had a dog to go for him, or if I had dropped him near shore, how many more could I have killed? We stayed around for an hour or more but no more gulls came in range, and we returned home with a few Field Plovers, Killdeers, Yellow-heads, Longspurs, and Le Contes Finches. Although the marsh had plenty of birds on it we could not get at them.

The next day, the 13th, I took a horse and buggy and started out in search of the swamp I believed must be in a certain place on account of the birds flying in that direction. By inquiring along the road I was gradually directed to a large round hole about two miles from town. This proved to be just what I was

looking for, as upon drawing near I could see large bunches of Snipe and Sandpipers wading around in the shallow water; big, long-legged Waders of different sorts were standing around. One of these came flying past me; I had just time to slip a shell in the gun and let him have it, knocking him heels over head. The horse got considerably scared, but upon being hitched to a fence post soon quieted down. I picked up my bird and found it to be a Great Marbled Godwit. This place was nearly round and about a quarter of a mile across, with little or no weeds in it. About three inches of water covered the black mud in a small space in the centre; with rubber boots I could go in any part of it. At the first shot the birds rose up, but soon settled again with the exception of two Sandhill Cranes and a lot of Ducks; these left the place. About the first thing I did was to turn loose among a lot of Sandpipers, killing eleven at one shot, six Pectoral, three Semipalmated, one Least, and one White-rumped. By this time the birds were flying around in all directions, and after gathering my birds up and putting in a dry place I went over to where some odd looking birds with a long bill had settled. I found them but they flew before I was quite near enough. I chanced a shot and winged one which proved to be the Red-breasted Snipe or Western Dowitcher. I followed them up and got another shot, killing two.

I noticed a large brown-breasted bird flying about, and in hopes of his coming near me I slipped in two heavy loads. Pretty soon he started in my direction and when quite near me I knelt down on one knee and took deliberate aim at his big breast and fired. I was surprised at the great recoil of my gun which had sent me flat on my back, fortunately I was in a dry place. I did not mind the kick but watched my bird and saw him tumble through the smoke nearly at my feet. It was a strange bird to me, but by his upturned bill I placed him among the Godwits, and upon looking him up in the Key I found it to be the Hudsonian or American Black-tailed Godwit. This is pretty good, I thought, two kinds of Godwits the second day. When I opened my gun and found I had shot both barrels at once, that accounted for the recoil. I had by this time walked part way round, when a large flock of Golden Plover pitched down from the sky and after circling around a little settled at my end. There was no cover by which to approach them so all I could do was to walk deliberately up to them and fire as soon as they flew. This

they did sooner than I expected, being very wild. I shot both barrels at them. At the second shot one dropped, and as they went across another weakened and lit among some Sandpipers. The others went over the hills ("and far away"). Picking up my bird I went across and easily collected the other wounded one. They were in the black breeding dress and were certainly handsome. Upon skinning them they were found to be like so much butter, having generally almost half an inch of fat around their bodies, and to make a nice specimen of them was truly difficult.

I also saw a flock of Black-bellied Plover, but they were even wilder than the Golden, and I could not get in range of them. I noticed them on several other occasions but it was always the same—wild and wary. I made some wooden decoys and painted them. Although I could fool Golden and Field Plover with them the Black-bellied Plover were too wise to be caught napping in such a manner, so I was compelled to go without a specimen of *helvetica*.

I now gathered up my birds and placed them in the buggy, and arrived home in time for dinner.

Geo. G. Cantwell.

(To be continued.)

Minneapolis, Minn.

Nesting of the Florida Cormorant.

In Davie's *Nests and Eggs of North American Birds* the Florida Cormorant (*Phalacrocorax dilophus floridanus*) is given as "resident in Florida and along the gulf coast, where it nests in communities on the Mangrove islands. The nests are always placed in Mangrove bushes, and are composed of the twigs, and are very often lined with the leaves of this plant. . . . In the vicinity of Tampa and Charlotte harbor the birds nest in May and June," etc.

My experience with this bird is confined to a short trip on the Gulf near St. Marks, Fla., early in April, 1889, and being entirely at variance with above may be of interest.

Our collecting ground was for the most part the heavily wooded lowland from two to three miles back from the Gulf. The growth is largely "cabbage" palmetto and pine, and along the numerous streams, on the borders of the many ponds the cypress frequently attains large size. Tramping over such ground was extremely tiresome, it being for the most part

soft or muddy, and we were often forced to wade knee deep through bogs and swamps.

We had noticed the Cormorant flying from the coast inland, high over the tree tops, and for several days had been planning a search for their supposed "rookery," and finally on the 7th of April we made an early start, and by 8 o'clock were well back in the swamp, ready for the first observation.

This was taken from the top of a tall pine tree, and a few minutes served to locate the site, probably a mile farther back from the gulf, the birds being seen to drop down into the woods at that place.

Carefully noting by compass the direction, we floundered through mud and slime for half an hour before reaching our destination, which proved to be a circular pond, probably one hundred yards in diameter of open water, and bordered with immense cypress and pine trees growing in the water, which was in some places two to three feet deep, and it extended back into the woods twenty-five yards or more.

In the largest of the cypress trees we found the Cormorant domiciled. The nests were placed for the most part on the horizontal limbs well out from the body of the tree, some however well up in the tops of the trees. Eight trees were occupied, and ninety-seven nests were counted.

The largest tree was at least six feet in diameter at a height of eight feet from the ground, and carried its size in good proportion well up to the lower limbs, which we estimated to be over sixty feet from the ground. This tree contained twenty-three nests, but none of the others had over sixteen nests.

The nests were quite large as seen from the ground, but were found to be not very deep. Nearly all had a bird sitting on them, and the appearance of their long slender dark necks, small tufted heads, and elongated bills was odd and interesting.

We found that the nests were never left unoccupied after one egg had been laid, and that the bird on the nest was fed with fish, carried a distance of three to five miles by the other birds.

The reason for such close sitting was seen to be the presence of numbers of Fish Crows (*Corvus ossifragus*), or as my boatman called them "Jackdaws," which in several instances were seen to fly into a nest when we had scared off the Cormorant, and try to devour the eggs. The sound made by the old bird was peculiar, and I could only liken it to several swine feeding at a trough.

A number of Turkey Buzzards and Black Vultures were on the ground under the trees in search of fish that might be dropped.

The occupied trees could only be approached by wading through water for about fifty feet, and in some instances two feet deep. By means of irons and a strap I climbed three trees and secured thirty sets of eggs. Several nests contained but two or three eggs each, none over four eggs, and all were perfectly fresh. A few nests had not been laid in.

All the nests were built of dead sticks rather compactly arranged, and were from eighteen to twenty-four inches in diameter, and about six inches high, with a slight depression for the eggs. Several eggs were found outside of the depression, and lying on the upper edge, but were probably blown out. The eggs were unbroken, and the limbs supporting the nests were quite slender, and at the time of our visit there was sufficient wind to sway them considerably.

In several instances three nests were seen upon the same limb, and in one case there were four. Except in a few cases where there were sprays of green cypress no attempt had been made towards lining the nests. The lowest nest was over fifty feet from the ground, the majority were over sixty feet high, and on the large tree referred to several nests must have been one hundred feet high. This tree, by the way, was not molested by our party; the combined girth of the strap and a pair of long arms not being sufficient to compass it by fully six feet.

To sum up negatively as compared with Mr. Davie's description, we found they were not nesting on an island. The nests were not near the ground nor in bushes, nor were they lined with leaves. The eggs were not laid in May and June, but two hundred miles north of Tampa nearly all were laid in the first week in April.

The eggs are of the usual Cormorant color with the heavy lime surface covering. They vary considerably in size and shape as the following measurements will indicate: 2.72 x 1.50; 2.50 x 1.40; 2.53 x 1.38; 2.50 x 1.50; 2.25 x 1.60; 2.25 x 1.38; 2.12 x 1.50.

These were taken regardless of sets, but to show widest range.

It will be observed that the two specimens showing greatest variance in long axis, while two specimens showing greatest difference in shorter axis correspond in longer axis.

C. J. Pennock.

Kenneck Square, Pa.

Nesting of the Saw-whet or Acadian Owl.

On May 1, 1889, I started out determined to take a look for hawks, and also to keep my eyes open for signs of nests of the Crow, Ruffed Grouse, Woodpeckers, or other early breeders.

I first struck out for a small swamp, in which were some large pine and oak trees, and a few hemlocks. I went up to two nests here, and found both filled with leaves, evidently the home of squirrels.

I then started out for higher land, and, after tramping for about two hours, and going up to a number of nests in pine trees with the same success as at first, I decided to visit a large wood about two miles distant, where I had heard Redtails had been seen.

I had to go through a large swamp on my way there, and I picked my way along through the bushes and underwood with considerable of what may be called a "discouraged tired" feeling, for walking three or four hours and climbing a dozen trees, from twenty-five to seventy-five feet, without climbers, and without encouragement when reaching the nest, is tiresome, even to an "old boy."

When I got well out into the swamp I saw a dead maple stub about twenty-five feet high, with a hole about six feet from the top. Thinking I might start out a Flicker or Flying Squirrel, I went up and gave it a thump. In a moment I saw the head of an owl looking down with eyes more full of astonishment than my own.

Throwing up a piece of bark, the bird dropped back out of sight. I then tried the stub, and found it so weak I did not dare to trust my weight upon it. There was a small maple near by, so cutting a stick with a hook, I went up it and pulled the stub over so I could reach it, then as the hole was on the other side I had to use my knife, and began to get too close for the owl's comfort, as her bill began to snap very savagely for so small a bird.

I soon had the hole large enough to put my hand in, and got hold of the bird (or rather she got hold of me) and pulled her out, getting a good test of her claws and bill meantime. I looked her well over, and found she would measure about seven inches long, with a spread of wings of eighteen inches, and I readily identified her as the Saw-whet or Acadian Owl (*Nyctala acadica*.) Having no particular use for her I released her, and she flew to a pine tree near by, where she remained until I got through operations.

Taking out my box I packed the four eggs snugly away, and found that the nest was made of feathers, the top of chips, and that it contained part of a mouse for future use.

The nest was about six inches from the hole, and it may possibly have been a Flicker's old nest, but I hardly think so.

I succeeded in blowing the eggs fairly, but incubation was pretty well advanced. They resemble the eggs of other owls very much, but are not as spherical as those of most species. The measurements are as follows: 1.32 x 1.05, 1.33 x 1.04, 1.30 x 1.03, 1.25 x .99.

C. W. Swallow.

Dunstable, Mass.

The Preference of the Brown-headed Nuthatch for a Nesting Site near Water.

Mr. Davie, in his *Nests and Eggs of North American Birds*, records the finding of a nest in a hole in a stump, standing in a pond, by Mr. Noble of Savannah, Ga., but does not otherwise indicate the preference of the Brown-headed Nuthatch (*Sitta pusilla*) as to high or low localities, and this leads me to give my experience, which is, that when the nesting time comes, the place to look for nests is along the creek banks, around the edges of ponds and such places. One nest found in 1885 was in a fence post on a hill some thirty yards above a swamp.

Of three nests found in 1887 two were on the uplands, and one in a stump standing in water.

Of five nests found in 1888, one was on the uplands, and four in stumps standing in or close to water.

Of six nests with eggs found in 1889, three were in stumps standing in water, and three more in stumps close to water.

The birds also commenced to line their holes in four other stumps, and to dig holes in two more in 1889, of which two stood in water and four close by: a nest with young was also found in a stump in the creek bottom standing in water.

Thus of twenty-two nesting sites which have come under my observation, eighteen stood in or near water, and four were on the uplands, thus showing a great preference for damp localities. Now let other Southern collectors come forward and say what is the Nuthatches' preference in their localities.

C. S. Brimley.

Raleigh, N. C.

Scraps from a Field Book.

On windy nights or stormy days, when indoor comforts contrast brightly with outside hardships, then I am most fond of reviewing the pages of my field notes, and in imagination, live over again the days there recorded.

Though these notes are probably more interesting to myself than to the general public, I still presume to think that a few crumbs collected from the richer parts might not be amiss, for if two persons should go over the same ground in company, their log books would show that each had received different ideas and unlike impressions.

I remember one October day, of walking miles in the keen sharp air, and of learning many of Nature's little secrets, even though there were no birds which I had not seen thousands of times before. On this day the Bluebirds were very numerous, in flocks of from six or eight to forty or more, and some of them were yet in their striped vests and mottled gray and blue backs, which seem to be the style for summer wear among the younger portion of the community, though the older ones were truly gorgeous in blue and chestnut, even out-rivalling their appearance when they came among us in springtime. They did not sing, but sadly piped in monosyllables, and ever in the same tone, now loud and near by, and then fainter, when at a greater distance, but ever clear, like the air and the sky above them. To me this note is always associated with old pastures, scraggy fences, and turning leaves.

In a few weeks most of them will have gone south for the winter, as it is fashionable for most birds to do, but a few, like the unfashionable of their human neighbors, prefer to spend the season at home, for here in Massachusetts hardly any winter is without its few stray Bluebirds, and during some seasons, like the winter of 1880-81 and 1882-83, they are really plenty. In the fall these birds are, if not less suspicious, more restless, and do not stay in one place long at a time, but when spring comes they will be confiding again. Once in March I saw one perched on the "tail" of a rattling, buzzing windmill, and singing away as unconcerned as you please, and I have removed the female from her nest with my hand, and even then on being released she remained within a few feet of me.

Writing of Bluebirds reminds me of one of their articles of diet which to my knowledge

is shared by only one other bird, the Box Swallow (*bicolor*). To these two the uninviting fruit of our pungent-leaved bayberry seems to be acceptable, though perhaps unequally attractive. The Swallow seems to be very fond of the berry, especially in the fall, when they cover the bushes by thousands in some places, and make an entire repast of the berries, and I have seen them in spring eating those which have survived the winter.

Bluebirds are far less frequent visitors to this bush, and I imagine that they only partake when hunger drives them to it, as I have found them eating the tallowy berries only on two or three occasions in early spring.

The only other prominent bird on this autumn day was that bird of many names,—the "flicker." A local name used on Cape Ann is, I think, new in print, viz., "Yellow Wing."

The Flicker, when seen at all, is always conspicuous, but on this day he was more plentiful than usual, and twice during my walk I noticed signs of that habit common with its Californian variety, but newly (?) acquired by the eastern Flicker, of boring into buildings. One example was in the side of a barn, and I was fortunate enough to see the occupant entering just at sunset, probably to spend the night. The other hole was similarly situated in an old corn house. On another occasion during a bright morning late in November I saw one of these birds in the act of leaving a hole likewise in a barn, and I know of an ice house which is literally full of holes made by these birds in order to reach the sawdust, into which they burrow for their winter quarters. Two other instances which have come to my attention are worth notice: one of a Woodpecker which had taken up his abode in a hole which he made under the eaves of a dwelling, where he spent several winters. And the other, told me by a friend and frequent contributor to this magazine, of a Flicker which nested several years in a crevice of an unused chimney in his grandfather's house. As I came suddenly into a clearing among a growth of thick bushes and trees, I started a Flicker which was climbing the vertical trunk of a tree, like any other Woodpecker, a position comparatively rare for *auratus* to assume, for he is most fond of feeding on the ground.

In a dismantled garden, a place of old weeds and nettles, I found a flock of "thistle-birds," the American Goldfinch. They were feeding on the "devil's pitchforks" and seeds of some golden-rod which had, alas, lost its gold in the

wheel of fortune, and remained in its old age a dull feathery white.

Earlier in the fall I had noticed this same flock busily picking the cones in a fir plantation near by, and all which I examined were daubed with their sticky pitch, and stuck with sand in which they had been enjoying a dusting bout with the Chippers.

The last thing which I saw before reaching home was an inquisitive Downy Woodpecker, busily engaged in searching for a late supper on a telegraph pole, and I wondered if with darkness and his sleepy eyes, he had not made a slight mistake. *Harry Gordon White.*

Nesting of the Pine Warbler in 1889 at Raleigh, N. C.

We expected to get a large number of sets of eggs of the Pine Warbler (*D. pinus*) this year, judging from last year's experience, but said experience was scarcely worth anything to us. I found the first nest building the same day and near the same place as last year's No. 1, and after that we found eight more nests of the first laying, but only got five sets from them. Of the second laying (that is the rebuilding of nests already taken) we found five nests and got five sets therefrom. We also found two nests just started building which were afterwards deserted.

The date for sets was April 12th to 18th (first laying) and April 29 to May 2d, (second laying). Of the ten sets taken there were eight of sets of four eggs each, and two of three eggs each (one of these was a full set, the other apparently incomplete as the bird laid four the next time.)

The nests were built in the same general situations as last year, but most of them were lower, one however was higher than any of last year's, being seventy feet up in a loose barked pine, and fortunately reachable from the trunk.

Last year's sets of the first laying could all have been taken on one day; this year April 12th found incubated sets and empty nests as well.

Of the fourteen nests found in various stages of completion, ten were found by watching the birds building, two by seeing birds act suspiciously in the tree the nest was in, and two by looking in the neighborhood of where we thought a nest was.

The male bird was found sitting on the nest on two occasions, both times in the forenoon.

C. S. Brimley.
Raleigh, N. C.

The Chuck-wills Widow at Raleigh,
N. C.

The Chuck-wills Widow (*Antrostomus carolinensis*) is tolerably common here, but is very seldom seen — far less often than its smaller cousin, the Whip-poor-will, which to judge by the numbers of each bird which can be heard calling on any still night in the country at the right time of year, ought to come to hand much less often than it does if it were as hard to flush as the big Widow.

The birds start singing about the last week in April, and this seems to be the right time to find them, if indeed one is lucky enough to find them.

My experience is as follows: I flushed one on April 21, 1885, but could not get a shot; on April 30, I flushed two along a fence, and after a while killed one sitting on a bush. From this time on to 1888 I never saw one at all, although I heard them whenever I happened to be in the country at night.

On April 27, 1888, I flushed one from under a bush, whereupon he settled in a tree twenty-five feet from the ground, and was promptly collected; while in his death throes he disgorged the entire body, feathers and all of a Carolina Wren, which I suppose he had been intending to digest. The same day I flushed another, and had an easy shot but missed him clean.

The few I have flushed always settled in trees, except in the last case, when the bird lit on the ground and was refushed, and then settled in a tree and was missed. On the other hand Whip-poor-wills almost invariably light on the ground, and seldom in a bush. If the Widow roosts in trees this would account for the great difficulty of finding one. Audubon says it roosts in hollow trees which would also increase its chances of eluding observation. I have no doubt the bird nests in this section as it is a regular summer visitor about half as common as the Whip-poor-will, but I have never found the eggs.

C. S. Brimley.

Raleigh, N. C.

Birds of Chester County, Penn.

Criticisms.

Editor O. & O.:

I have examined with considerable interest the list entitled "Birds of Chester County, Pa.," by C. B. Ressel of Ercildoun, Pa., just com-

pleted in the September O. & O., and while the bulk of the list is seemingly correct it contains some extraordinary statements concerning the breeding of certain species within our county that are undoubtedly wrong.

Had the author consulted any of the standard works on ornithology he would have found that the summer habitat of such species as the Yellow-bellied Flycatcher (*Eumyias flavigaster*), Lincoln's Sparrow (*Melospiza lincolni*), Nashville Warbler (*Helminthophila ruficapilla*), Blackburnian Warbler (*Dendroica blackburniæ*), and Water Thrush (*Seiurus noreboracensis*), was given as from Northern United States northward, excepting where elevated regions occur to the southward, such as the Adirondacks and Catskill Mountains, where a portion of them at least are found throughout the breeding season, associated with numerous species belonging to the Canadian fauna. But as Chester County nowhere offers such favorable, elevated areas as these species demand in this latitude, we must consider the instances named of their occurrence here as the result of a wrong identification.

The American Bittern (*Botaurus lentiginosus*), Red-shouldered Hawk (*Buteo lineatus*), Least Flycatcher (*Eumyias minimus*), Rose-breasted Grosbeak (*Habia fuscicollis*), Golden-winged Warbler (*Helminthophila chrysopetera*), Parula Warbler (*Compsothlypis americana*), Pine Warbler (*Dendroica virens*), Prairie Warbler (*Dendroica discolor*), Louisiana Water Thrush (*Seiurus motacilla*), Hooded Warbler (*Sylvania olivacea*), Blue-gray Gnatcatcher (*Polioptila caerulea*), and Wilson's Thrush (*Turdus fuscescens*), are also found breeding in this county, according to Mr. Ressel.

The fact that I have for the last twenty years given considerable attention to the nesting habits of our birds, would not alone, perhaps, justify me in criticizing that portion of the list that includes the last named species, as regular breeders here. But I found on careful inquiry among those who have had equal or better opportunities for studying our bird life, that all join me in saying that no authentic instances of the nesting of any of these species within the limits of Chester County has been recorded up to the present time.

The fact however that some of them are known to breed in adjacent and similar territory, bring it within the range of possibility that they may yet be found here, though such discoveries are not likely to fall to the lot of any one individual.

Thos. H. Jackson.

West Chester, Chester Co., Pa., Oct. 19, 1889.

Brief Notes.

William Smith returned from Santarem, Brazil, the last of September. As previously reported, he was taken sick early in the spring and nearly lost his life. He was carried on board the steamer in a helpless condition, but improved on the voyage so as to be able to walk upon arrival at New York. He is still very weak, but gaining. Fortunately for the projectors of the expedition he arranged with a party located at Santarem to furnish them with specimens from that locality in the future. Since his return word has been received that the physician, an American, who cared for him while there, has died.

An Albino Cuckoo, pure white, ♀ of the year, was taken at Concord, Mass., Sept. 24th.

A member of congress, pleading for the establishment of Breakwaters, feelingly said, "Why, when I was at the coast twenty years ago, the 'cliff' swallows had holes in the banks twelve feet, and to-day the holes stick out seven feet, such is the encroachment of the waves."

Just received a fine Little Brown Crane (*Grus canadensis*), killed Wednesday, Oct. 9th, at Natick, Rhode Island. J. M. Southwick.

That's rough—"a fish's palate."

"I was burned out, and saved nothing. Lost my entire museum and job office. . . . The Hawkeye O. & O. is discontinued for the present as I do not know where to send it." E. B. Webster, Cresco, Iowa, Sept. 29.

Where was Moses when the light went out? "In the Standard Oil Co."

A. D. Brown, Pipestone, Minn., writes, "The O. & O. is one of the best Natural History Magazines published. It should be with every family in the country whether it contains a naturalist or not. It is a great educator of children." [That's so. The O. & O. deals with a subject that is constantly before us, and one upon which the average man is more ignorant to-day than were his ancestors when they used to skip from bough to bough in the treetops.]

Why is a mad cat likely to be a successful one? Because it will purr severe.

R. B. Trouslot writes that through all these months of silence the Hoosier Naturalist has not been lost sight of, and will again appear in our midst. Been over to Paris and doing the continent?

What's the only thing on earth that's what it's cracked up to be? "Ice."

The "Ornithologists' and Oologists' Directory," said to contain the names of the principal collectors in the United States, Canada and Great Britain, published by Menefee and Corless, San Jose, Cal., is now ready.

Heat expands and cold contracts. Johnny says that's what makes the days longer in summer than in winter.

"On Sept. 18th, I observed a pair of Ruby-throated Hummingbirds and again on the 20th. I also saw a pair of Blue Birds on the 20th. Is not this rather late migration for these birds? W. Darwin Porter, Wanamkee, Wis. [We should consider it late for the Hummers, but not unusual for Bluebirds to linger.]

The National Magazine, published under the auspices of the new "National University," which opened Oct.

1st, as its organ, began with the October issue. It contains articles on literary, educational, and scientific subjects. Published at 182 Clark St., Chicago, Ill.

Birds have been in unusual demand for millinery purposes this fall. They are worn whole, without any attempt at disguise. A mighty (small) impression seems to have been made on the public sentiment.

"Contributions to Science, No. 2," by Charles J. Maynard, contains many articles of interest and several colored plates. The illustrated article on the vocal organs of the American Bittern is unusually interesting. Two new species of butterflies from the West Indies are described and beautifully illustrated. Parts I to VI inclusive, of his eggs of North American birds are now ready.

The changes and disasters that have followed one after another in the ornithological publishing ranks are stunning and disheartening, and now comes the report of one more crash. "The Curlew," O. P. Hauner & Co., with the young ornithologists' association and the Wilson Ornithological Chapter of the Agassiz Association, together with its "plans for enlargement and improvement" and its well "considered plan for observation," has fallen victim and has been deeded, given, made over, packed, boxed and shipped to W. H. Foote, Pittsfield, Mass. There seems to be a maelstrom in that locality and our advice to other publishers is, "Johnny get your gun, get your gun."

G. Dennison Keeler, M.D., of Toledo, has been making quite an addition to his private collection of late. His calls at our office, while on his recent visits to this city, were a source of unusual entertainment. As we indulge in a cigar extracted from a box that he left in our care, we feel in no mood to dispute his statement that parrots are by no means a stupid bird. He related an instance that occurred (perhaps at the Smithsonian). A new comer, as he was inspecting the surroundings from his cage, espied a monkey in a corner. "Hello, monk, hello!" No answer. "Hello, monk, hello!" Again no reply. This time he took in the situation and soliloquized, "Well, don't you reply, I see you are stuffed, and you are such a poor job. I'll bet you're the chap that started the monkey and the parrot story." Another of the same order electrified an old gentleman a few days since, who in passing stopped and admiringly began the usual formula of "Poor Poll, pretty Poll," when it shouted, "Say, old fellow, don't you ask me to have a cracker or I'll knock you out." But the doctor says both were outdone by a bird in his town that was owned by a young man who was a noted gallant, but of a rather diffident nature. He was particularly attentive to a certain young lady, and while one day showing her his collection of ornithological specimens took the opportunity to make a proposal. In the usual manner on such occasions he was quite spoony and sealed the compact by planting a kiss upon her fair brow, when both were startled by the parrot exclaiming, "By Jove! this is torture; bring me a bird!"

But to our minds the prize should be awarded to a parrot that was found in the bottom of his cage one morning and taken to a taxidermist, one of our competitors. While lying on the table awaiting its turn, it revived, got up, but upon looking round, and observing the distorted condition of several stuffed specimens, expired from fright and was not recognized when called for by its owner.

That settles it—eggs in coffee.

A Story of Old Game.

He was a guileless college youth,
That mirrored modesty and truth;
And sometimes at his musty room
His sister called, to chase the gloom.
One afternoon when she was there,
Arranging things with kindly care,
As often she had done before,
There came a knock upon the door.
Our student, sensitive of fears
Of thoughtless comrades' laughing jeers,
Had only time to make deposit
Of his dear sister in a closet;
Then haste the door to open wide;
His guest unbidden stepped inside.

He was a cheery faced old man,
And with apologies began
For calling, and then let him know
That more than fifty years ago,
When he was in his youthful bloom,
He'd occupied that very room;
So thought he'd take the chance, he said,
To see the changes time had made.
"The same old window, same old view—
Ha, ha! the same old pictures, too!"
And then he tapped them with his cane,
And laughed his merry laugh again.
"The same old sofa, I declare!
Dear me! It must be worse for wear.
The same old shelves!" And then he came
And spied the closet door. "The same—
Oh, my" A woman's dress peeped through,
Quick as he could he closed it to.
He shook his head. "Ah! ah! the same
Old game, young man, the same *old game*!"
"Would you my reputation slur?"
The youth gasped; "That's my sister, sir!"
"Ah," said the old man with a sigh,
"The same old lie—the same old lie."

—From W. B. C.

Correspondence.

Editor O. & O.:

While collecting birds the other day, Aug. 28th, I shot three Red-bellied Nuthatches. They were feeding in white birch trees much in the same manner as Warblers would. I also shot a Cape May Warbler, the only one I ever saw. Is it not rather early for these birds so far south?

W. H. Lucas.

Bridgeport, Conn.

Editor O. & O.:

I noticed in August O. & O. a communication from Mr. C. J. Maynard referring to an article of views on the Florida Burrowing Owl. All I can do is to reiterate the facts before stated.

Pray do not let Bro. Maynard think that I feel at all unhappy about it, but I must say that

if he had had a little more "experience in this state" he would find it easy to distinguish between the hole of a Gopher (*Xerobates?* sp.) and that of an Owl. They are not often near together, and possess no characteristics in common except that both are *holes*. And I cannot doubt the testimony of both whites and Indians that the Owls dig their own holes.

I found lots of Owl's holes in the Kinivie prairie; also many Gopher holes; also many snake or spider holes (so called); also one *undoubted* skunk's hole. All these holes were different kinds of holes, and I must claim some weight for my "hole experience."

Besides — though it is but an instance — the only one that I saw to shoot was actually digging. I found the fresh earth excavated and the tracks and castings of the bird one day. Several days later I found the bird and shot it. The habitation showed still more work done upon it than on the day when it was first examined. And this in spite of the fact that I had dug down into it at several places the first day I found it, and as I thought ruined it for its possessor. There were several deserted Owl burrows close by which the owner of this one might have occupied.

Walter Hoxie.

Beauport, S. C.

Editor O. & O.:

I saw down at Quinsigamond Lake last Friday two birds which I thought you would like to know about. They were a Northern Phalarope and a Passenger Pigeon. I got within fifteen feet of the Phalarope, which was engaged in catching insects on the water. The Pigeon flew over the boat. The Phalarope is a bird that is very rare here and the Pigeons are not common, although I most always see one or two every migration.

Ralph H. Holman.

Worcester, Aug. 26.

New Publications.

Contributions to Science. Vol. 1, No. 2, C. J. Maynard. Contains Description of Cory's Gannet, Vocal organs of the American Bittern, Monograph of the Genus *Strophia*, Notes on the Anatomical Structure of the Crowned Crane, Description of a new species of Butterfly from the West Indies, each subject being illustrated with hand-colored plates drawn on stone by the author.

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No. 11.

Overland Journey—Texas to the Pacific.

The range and migration of birds is always an interesting topic. In an overland journey from the Gulf of Mexico to the Pacific, recently, a limited opportunity was offered to make notes, of which I gladly availed myself. To be sure, looking from a car window is a very unsatisfactory way to get details, yet, in this way, I saw much of bird life that interested me. Texas being my native state, I paid very little attention to its feathered inhabitants, further than to note some rare specimen or oddness in plumage. But as I passed from Texas into New Mexico I mentally resolved to note the range of our most common birds, as far as it was possible. New Mexico being extremely barren seemed to offer but little inducement even to the Ground Sparrow, yet I noted them in numbers, also the Nighthawk, and in the higher lands, where a little timber existed at the base of the mountains, the Red-winged Blackbird seemed supremely happy. The cacti, which abound, seemed to teem with Mourning Doves, and I concluded that there was more to New Mexico than its face indicated.

As the mountains of Colorado are entered, and an ascent commenced, bird life grows less and less. As the train dashed into a wooded ravine I noted with curiosity and pleasure the first Magpie that I had ever seen on its native heath. It deserted its place with reluctance and settled a few moments after and began swaying its body and ruffling its feathers with characteristic impudence. Here, too, I noticed a great flock of Crows passing through the stunted timber. After the mountains were passed, and Fishers, Greys, and Pikes Peaks, with their snow clad summits, were being admired, I again noted the Field Sparrow, a single pair, running over the dreary

prairie. Nothing further was noted until Manitou Junction was passed, where, in the midst of a rain and thunder storm I noted a large flock of Mourning Doves, and then all indications of feathered life ceased. That evening Denver was reached, and for the time being, birds were forgotten, not absolutely, for I remembered that as I passed the spurs of the Rocky Mountains, and gazed into their solitude, a great longing came over me, a longing to wander into their most secret depths, and fathom the mysteries of feathered existence there. I well knew that although nothing was to be seen, comparatively, along an iron highway there was much in the mountains and their valleys. Birds had their homes there. Birds whose acquaintance I had only made through the medium of books, and I longed for a personal interview.

I left Denver bound for Portland, Oregon, in the morning, and what a bright, sunshiny morning it was. Behind, the Rocky Mountains presented a majestic appearance, the sunlight glancing on their sides assisted many exquisite tints to mingle. They gradually grew less and less distinct, till finally a purple haze on the horizon enclosed them in its grasp. Before, was a prairie, broken now and then by a town enclosed in a growth of cottonwood trees and immense wheat fields. Irrigation has done it all, and the birds have kept pace with the march of civilization. There were clouds of Red-wing Blackbirds; and Grackles, Meadow Larks, Field and Song Sparrows served to enliven the landscape; and rest assured that the eaw of the Crow broke the stillness. The prairie land lying between the reclaimed fertile spots presents to the eye nothing but sage grass. Occasionally a Road-runner would be seen deftly edging its way through—they and a few Meadow Larks, with their cheery songs, were all that broke the solitude. After passing

Cheyenne, and the ascent of the Rocky Mountains began, I saw three varieties of Hawks, viz: Marsh, Pigeon, and Sparrow Hawks. The two former were not abundant, and when seen were wheeling over a deep chasm, or near the point of a steep precipice. There were numbers of the latter, and as the train thundered on they relinquished their places on the tops of the telegraph poles with evident reluctance. On the ground nothing was to be seen. On one occasion as a field was passed (which in Wyoming are widely separated) Mourning Doves got up in numbers. Some time after passing Sherman, the highest point in the Rocky Mountains on the line of the Union Pacific R.R., the road takes up with, and follows the bank of the most charming of streams, the edges of which are fringed with the thickest growth of wild willows imaginable. Here birds seemed to revel, but on account of the thick growth and rapidly moving train much was lost. I found it impossible to distinguish the species of Warblers, of which I got many glimpses. I noted, however, Magpies without number; Great and Green Herons, Peeps, Lesser and Greater Yellow-legs, Kildeer in numbers, Red-wing Blackbirds, Grackles, Blue-wing Teal, Grey and Mallard ducks, and a family of Canada Geese. What struck me as particularly remarkable and seemed worthy of a note in italies, was the appearance of two or three varieties of Gulls. Their presence in the centre of Wyoming, and so far inland completely mystified me. The explanation of a fellow passenger seemed satisfactory. He attributed their presence to the near proximity of Great Bear Lake, Utah. No doubt they were on their way there. Idaho was duly entered, and the stream then deserted us. Idaho is indeed barren, offering nothing better to look at than a vast rolling prairie of sage grass. The sight of a flock of Mourning Doves was indeed welcome, and the occasional song of a Meadow Lark from such a desert delighted the ear. As evening came on we got into the hills, and in the twilight passed a lake of surpassing beauty, that nestled like a gem in the embrace of the hills. The sun had sunk to rest some time before, and there lingered in the west that tender and mysterious light which so influences our better natures. The atmosphere was soft and still; not a ripple disturbed the lake's surface, on which the hills reflected themselves. The train's thunder frightened five Mallards, and soon they were silhouettes in the sky. Had there

been a deer in the vicinity Landseer's "Sanctuary" would have been complete.

A short time after entering the state of Oregon the Blue Mountains are penetrated, and the giant firs, for which Oregon and Washington are noted, made their appearance. It seems strange that in so much timber, birds are rare. I noted only two varieties of Woodpeckers, Hairy and Flicker; the latter were comparatively abundant. The same can be said of Washington. Here I have had ample opportunity to observe and find bird life in the timber confined almost exclusively to Jays and Flickers. I have seen, however, a flock of Yellow Rumps, Song and Field Sparrows, Blue birds and Nighthawks without number. The latter seem to be making their way to the south-west. On Puget Sound and the Pacific coasts, I have noted three varieties of Gulls, Marsh and Great Terns, Semipalmated Snipe, and Teal, Ducks, and Mallards in numbers. The latter are on their Southern journey.

In conclusion I beg to add that I have seen all the birds I have mentioned on Galveston Island, state of Texas, with the exception of the Magpie and Roadrunner. Before returning home California will be visited, when a further opportunity to observe will be offered.

Boyer Gonzales.

Galveston, Texas.

Leach's Petrel at Brockton Heights.

On October 16th a boy brought me a Leach's Petrel which he said a gentleman had shot while resting on an apple tree (the gentleman of course). This is the first time I ever heard of a Petrel being twenty miles inland, in Massachusetts at least.

He was probably driven in by the north-east storm which existed at the time. But I have always supposed that a Petrel could withstand the fury of the wildest tempest and this was only an ordinary storm. Still the fact remains that this one was twenty miles from the nearest salt water and in an apparently exhausted condition when captured. Let us hear from others on the subject, and if it is a common occurrence, I, at least, shall learn something new.

R. H. Carr.

[One was taken in Boston, on October 18th, in the Back Bay district, hung to the telegraph wires.—B.]

Notes on Nebraska Birds.

(Continued from page 172, Vol. XIII.)

289. *Colinus virginianus* (Linn.). Bob-white. Resident; abundant. Begin laying the last of April. Nest in a depression on the ground, generally in the grass on the prairie, the grass at the edge of thickets being a favorite place, and also in the grain fields. Nests usually composed of grasses, arched over, with entrance at the side, but often found in the fields after the grain is cut, composed almost wholly of the stubble. A nest examined May 19, 1889, was composed of grass, arched over, with entrance at the side, and contained 16 eggs, cream white; in shape conical; average size, 1.61 x .96. The Bob-white was formerly more abundant in Eastern Nebraska than it is now. Hunters keep its number reduced, and during severe winters a great many perish.

297. *Dendragapus obscurus* (Say.). Dusky Grouse. Collected in Black Hills and at Laramie Peak, Nebraska, in August. (Baird). Probably breeds in the state.

300. *Bonasa umbellus* (Linn.). Ruffed Grouse. Resident in Eastern Nebraska; not common. In the early settlement of the state it was quite common in the timber along the Missouri River, but has almost disappeared. Mr. Phelps, of Peru, reports seeing a number in the timber near Peru, during the fall of 1888, and Mr. Gillilan saw a pair of them in the same timber in January, 1888.

305. *Tympanuchus americanus* (Reich.). Prairie Hen. Resident; common in eastern and middle Nebraska. Begin laying the last of April. Its favorite place of nesting is in the thick grass on the prairie. The nest consists of a hollow scratched in the soil, sparingly lined with grass and feathers. In the early settlement of the state the Prairie Hen was very abundant, but the breaking up of the prairie has destroyed its natural nesting place; the burning of the grass in the spring destroyed countless numbers of eggs; and being a favorite game for hunters its number has been greatly reduced. It seems likely that it will soon be exterminated in the eastern part of the state.

307. *Tympanuchus pallidicinctus* (Ridgw.). Lesser Prairie Hen. Not on record as a Nebraska bird, but is given by Col. Goss as resident in Southern Kansas; rare. Is found in Dakota (McChesney), and probably occurs in the state.

308. *Pediocetes phasianellus campestris* (Ridgw.). Prairie Sharp-tailed Grouse. Resident in Western Nebraska; rare.

309. *Centrocercus urophasianus* (Bonap.). Sage Grouse. Resident in Western Nebraska; becoming rare. (Aughey).

310. *Meleagris gallopavo* (Linn.). Wild Turkey. In the early settlement of the state, an abundant resident, but becoming rare.

315. *Ectopistes migratorius* (Linn.). Passenger Pigeon. Given by Aughey as abundant during some years.

316. *Zenaidura macroura* (Linn.). Mourning Dove. Summer resident; very abundant; arrive the last of March; begin laying the last of April. Nest usually placed in the forks of trees or the low branches, loosely constructed of twigs, and lined with vines, grass, or leaves. Nest also on the ground. Eggs, two; white: elliptical to ovate; size, 1.12 x .90.

325. *Cathartes aura* (Linn.). Turkey Vulture. Summer resident; common. Sometimes seen during the winter.

327. *Elanoides forficatus* (Linn.). Swallow-tailed Kite. Aughey says, "Sparingly represented all over the state. In Dixon Co., a pair nested for at least four years in succession, on a cottonwood on Badger Creek."

329. *Ictinia mississippiensis* (Wils.). Mississippi Kite. Not on record as a Nebraska bird, but is found in Iowa and breeds in Kansas. May occasionally occur in the state.

331. *Circus hudsonius* (Linn.). Marsh Hawk. Resident; common in all parts of the state.

332. *Accipiter velox* (Wils.). Sharp-shinned Hawk. Common winter sojourner in Southern Nebraska. Collected at Black Hills and Bridger's Pass, Nebraska, in August, (Baird), and probably breeds in the northern part of the state.

333. *Accipiter cooperi* (Bonap.). Cooper's Hawk. Common summer resident. Begin laying the first of May. A nest examined May 16, 1888 was in the fork of a hickory tree, about fifty feet from the ground, and composed of oak sticks and twigs, lined with oak and hickory bark. The nest contained three eggs, in color pale bluish-white, showing blotches of gray blue on closer examination; size, 1.86 x 1.42; in form, short elliptical ovate.

334. *Accipiter atricapillus* (Wils.). American Goshawk. This bird has not been observed by us in Nebraska, but there is one specimen from Cummings Co., in the State University collection, and Aughey mentions dissecting one in August, on the borders of Dixon and Cedar counties.

337. *Buteo borealis* (Gmel.). Red-tailed Hawk. Resident; common.
- 337a. *Buteo borealis kriderii* (Hoopes). Krider's Hawk. Not on record as a Nebraska bird, but is found in Iowa and Kansas; breeds in Dakota, and probably occurs in the state.
- 337b. *Buteo borealis calurus* (Cass.). Western Red-tail. Colonel Goss says, "not an uncommon winter sojourner in Kansas." Two specimens were collected at North Platte, (Baird), in August, 1857.
338. *Buteo harlani* (And.). Harlan's Hawk. Do not find this bird mentioned in any report on Nebraska birds. Two specimens were collected near Peru, in April, 1886. Probably a rare winter visitant.
339. *Buteo lineatus* (Gmel.). Red-shouldered Hawk. Resident; quite common in Eastern Nebraska.
342. *Buteo swainsoni* (Bonap.). Swainson's Hawk. Resident. Aughey says, "rather abundant in the state in the vicinity of streams of water where timber exists." Baird mentions collecting it on Heart river, Little Missouri, and Long Fork of the Platte.
343. *Buteo latissimus* (Wils.). Broad-winged Hawk. Have seen but one specimen of it, and no mention is made of it in Nebraska reports. A specimen killed near Peru was brought to the laboratory of the State Normal in the fall of 1888.
- 347a. *Archibuteo lagopus sancti-johannis* (Gmel.). American Rough-legged Hawk. Rare in Southern Nebraska, (Aughey). Aughey mentions examining one from Beatrice, in September, 1873. There is a specimen in the State university collection from West Point.
348. *Archibuteo ferrugineus* (Licht.). Ferruginous Rough-leg. Resident. Have not seen it in Eastern Nebraska, but it is quite common in the western part of the state.
349. *Aquila chrysaetos* (Linn.). Golden Eagle. Resident; not common. Have seen it a number of times in East Nebraska, and a specimen killed near Peru, is in the State Normal laboratory. Aughey mentions seeing it twice on the Republican.
352. *Haliaetus leucocephalus* (Linn.). Bald Eagle. Resident. Mr. Kennedy says a pair nested for a number of years near Omaha. More common in Eastern Nebraska than the Golden Eagle.
355. *Falco mexicanus* (Schleg.). Prairie Falcon. Only occasionally seen in Nebraska, (Aughey). Collected by Baird at Bridger's Pass, in August, and at Ft. Berthold in September, 1856.
356. *Falco peregrinus anatum* (Bonap.). Dneek Hawk. Resident; not common.
357. *Falco columbarius* (Linn.). Pigeon Hawk. Aughey says, "Abundant all over the state."
358. *Falco richardsonii* (Ridgw.). Richardson's Merlin. Rather common in Nebraska. Breeds here. (Aughey).
360. *Falco sparverius* (Linn.). American Sparrow Hawk. Resident; common.
364. *Pandion haliaetus carolinensis* (Gmel.). American Osprey. A specimen in the museum at Crete, reported by Prof. Swezey is the only specimen we know of collected in the state.
365. *Strix pratincola* (Bonap.). American Barn Owl. Aughey says, "Only occasionally found in Nebraska, but breeds here."
366. *Asio wilsonianus*. (Less.). American Long-eared Owl. Aughey records this bird as very rare. It is quite common in Eastern Nebraska, but we have been unable to determine whether or not it is common in other parts of the state.
367. *Asio accipitrinus* (Pall.). Short-eared Owl. Common in Eastern Nebraska, is found all over the state, but according to Aughey, is most abundant along the Missouri bottoms.
368. *Syrnium nebulosum* (Forst.). Barred Owl. Not uncommon in Eastern Nebraska, and breeds here. A nest examined by Joseph Gillilan, of Peru, March 25, 1888, contained two eggs. Color white; form, subspherical; size, 2.00 x 1.68.
372. *Nyctala acadica* (Gmel.). Saw-whet Owl. Prof. Swezey reports a specimen in the museum at Crete. Probably a rare winter sojourner.
373. *Megascops asio* (Linn.). Screech Owl. Resident; abundant in Eastern Nebraska. A nest examined May 12, 1888, was about forty feet from the ground, in the hollow of a maple tree. The nest contained four eggs. Color white; form, subspherical; size 1.44x1.24.
375. *Bubo virginianus* (Gmel.). Great Horned Owl. Resident; common.
- 375a. *Bubo virginianus subarcticus*. (Hoy). Western Horned Owl. Mr. Frank Neal shot a male, January, 1889, in the timber about six miles west of Peru.
376. *Nyctea nyctea* (Linn.). Snowy Owl. Winter visitant.
378. *Speotyto cunicularia hypopyctis* (Bonap.). Burrowing Owl. Abundant in Middle and Western Nebraska.

382. *Conurus carolinensis* (Linn.). Carolina Paroquet. The only record we find of this bird is in "Birds of North America," by Baird, Cassin and Lawrence, 1856. Old settlers report it as quite common along the Missouri river, in the early settlement of the state.

388. *Coccyzus americanus* (Linn.). Yellow-billed Cuckoo. Common summer resident; arrive about the first of May.

387. *Coccyzus erythrophthalmus* (Wils.). Black-billed Cuckoo. Summer resident, but much more rare than the Yellow-billed Cuckoo.

390. *Ceryle alcyon* (Linn.). Belted Kingfisher. Common summer resident. Last year it arrived here about the first of April, but its time of arrival and time of leaving varies with the season.

W. Edgar Taylor and A. H. Van Vleet.
Peru, Nebraska.

Nesting Dates in 1888 at Raleigh, N. C.

March 9. Great Horned Owl, set of 1 egg from nest 50 feet in pine.

April 7. Brown-headed Nuthatch, set of 6 from dead stub, 5 feet.

April 9. Pine Warbler, set of 4, 20 feet in pine.

April 9. Barred Owl, set of 2, 20 feet in hollow birch stub.

April 13. Bluebird, set of 5, hole in apple tree.

April 21. Mourning Dove, set of 2, 9 feet in pine.

April 21. Carolina Tit, set of 6, 7 feet in dead stub.

April 26. White-eyed Vireo, set of 4, 4 feet in alder.

April 26. Carolina Wren, set of 5, nest in side of bank.

April 26. Turkey Vulture, set of 2, by side of fallen pine.

April 28. Tufted Tit, set of 6 in hollow dogwood.

May 2. Whip-poor-will, set of 2.

May 4. Pine Warbler, last set (of 4) 60 feet in pine.

May 7. Field Sparrow, set of 4 in bunch of weeds.

May 8. Wood Thrush set of 4, 7 feet in dogwood.

May 9. Mockingbird, set of 4, 7 feet in cedar.

May 10. Redwing Blackbird, set of 4, 5 feet in reeds.

May 11. Ruby-throated Hummer, set of 2, 25 feet in maple.

May 11. Carolina Tit, last set (of 4) in dead stub.

May 11. Yellow-throated Warbler, set of 1, 65 feet in pine.

May 11. Rough-winged Swallow, set of 1 from hole in bank.

May 15. Brown-headed Nuthatch, last set (of 4) from dead stub.

May 15. Cardinal, set of 3, 2 feet in brush.

May 16. Yellow-breasted Chat, set of 4, 3 feet in briars.

May 17. Prairie Warbler, set of 3, 7 feet in sweet gum.

May 23. Brown Thrasher, set of 4, 6 feet in briars.

May 24. Indigo Bunting, set of 3 in sweet gum.

May 28. Rough-winged Swallow, set of 5 from same hole as on May 11.

May 28. Kingbird, set of 3, 15 feet in mulberry.

June 1. Wood Pewee, set of 2, 18 feet in pine.

June 5. Red-eyed Vireo, set of 3, 10 feet in sweet gum.

June 8. Blue Grosbeak, set of 3, 2 feet in elders.

June 8. Tufted Tit, last set (of 5) in apple tree.

June 8. Least Bittern, set of 3, 4 feet in marsh growth.

June 9. Bluebird, last set (of 4) in hole in fence post.

June 11. Prairie Warbler, last set (of 3) in black haw.

June 11. Orchard Oriole, set of 4, 7 feet in mulberry.

June 11. Turkey Vulture, last set (of 2) among fallen pines.

June 14. Kingbird, last set (of 3) 12 feet in dead sweet gum.

June 15. Summer Tanager, set of 3, 10 feet in pine.

June 21. Mourning Dove, last set (of 2) in bush.

June 25. Yellow-breasted Chat, last set (of 4) 3 feet in thorn bush.

June 25. Acadian Flycatcher, set of 2, 20 feet in willow oak.

July 2. Field Sparrow, last set (of 3).

July 2. Cardinal, last set (of 3) in alders.

July 5. Mockingbird, last set (of 4) 5½ feet in sweet gum.

C. S. Brimley.

A Pleasant Hour.

On the 27th of May, 1889, I reached Missouri Valley, Iowa, a small country town some twenty-three miles northeast from Omaha. While my errand was purely a business one, I nevertheless had my eyes open for anything in the oölogical line, and, as we did not arrive until after four o'clock in the afternoon, too late for business, we concluded to devote the balance of the day to a stroll through the woods which cover the hills and ravines to the north of the town. So after depositing our baggage safely in our room at the hotel we started out. By "we" I mean my wife and myself, for she enjoys the woods and fields fully as much as I do, and never misses a chance to accompany me on my tramps.

It was now five o'clock, and fully a quarter of an hour later when we reached the woods. What a relief it was to enter them, and how gloriously cool and still it seemed, only those who, like ourselves have tried it after having spent a long, hot, and dusty day on the train can imagine. We strolled slowly along listening to the continual music of the birds; breathing in long, deep draughts of the pure, cool air, and watching sharply for anything that looked like a nest. Suddenly I laid my hand on my wife's arm and there to the right, not more than fifteen feet from the path, was our first find. A rough, rather bulky mass of dead twigs. It was placed about eight feet above the ground in a young elm and proved to be a nest of the Rose-breasted Grosbeak (*Habia ludoviciana*) and to contain seven eggs, five of which belonged to the rightful owners of the nest and the other two to the Cowbird (*Molothrus ater*). After safely consigning them to the old cigar-box which did duty as a collecting box, we resumed our walk. Bird life was abundant all around us, but it would take too long to enumerate the different species observed.

A little further along another nest greeted our eyes. This time it was that of the Wood Thrush (*Turdus mustelinus*) and contained four fresh eggs. It was built in the crotch of a small sapling about twelve feet from the ground. The spectacle of myself, a firm grasp on the sapling with one hand, the nest in the other, and all the while trying to place it in my wife's outstretched hands, would, no doubt, have proved quite laughable to an onlooker; however, there was no one to

look, and to us it was all very sober earnest. On again reaching the ground I followed the old bird, who kept constantly flitting from one tree or bush to another, to make sure of my identification. While engaged in this occupation I was startled by a large brownish looking bird which arose from the ground almost from under my feet. A glance and I recognized the Whip-poor-will (*Antrostomus vociferus*) and there, too, right before me, on the bare ground at the edge of a brush heap lay the two eggs. There was no attempt whatever at a nest, the eggs being laid simply upon the dead leaves which covered the ground. It was a beautiful contrast, too, which was brought out by the dark brown background of the leaves, and the grayish, marbled surface of the two eggs. Having safely disposed of this last find we resumed our tramp, and had not gone fifty feet when another bird arose from almost under our feet. This time it was the Black and White Warbler (*Mniotilla varia*), who fluttered lamely off, using all the tactics peculiar to many of the ground-builders when flushed from the nest. Paying no attention to her we devoted ourselves to a search for the nest, and in a few moments success rewarded our efforts. It was composed externally of roots and a few twigs, and lined with hair; the whole being placed in a slight hollow in the ground at the foot of a sapling. The eggs were six in number, four belonging to the parent birds and the remaining two to that avian parasite, the Cowbird. One of the Warbler's eggs was badly cracked or broken, and glued fast to the bottom of the nest. The cigar box was again called into requisition, and, as it was now supper time we turned our steps in the direction of the hotel quite elated at our success.

In looking back over my varied experiences afield I fail to recall one which gave me more real pleasure than the one short hour whose principal occurrences I have tried to outline above.

While travelling through Iowa this spring I several times found nests of the Robin (*Merula migratoria*) placed on top of the oil box of freight cars. They were placed between the wheel and the equalizer. At the same time I also found several placed on the floor timbers of the car. These nests contained eggs in some instances. Most of the cars had been side tracked for some time and to this fact, as well as to the scarcity of trees in that country, I attributed the choice of so unusual a nesting place.

Geo. L. Toppau.

A Collecting Trip to Lac-qui-parle Co., Minn.

(Continued.)

On the 14th it rained, and as I had not prepared all the birds I got the day before, I was kept busy till noon. The rain nearly ceased in the afternoon, so I put on a rubber coat and went out to look for Longspurs' nests. While out in a field where a man was ploughing I was watching the Black Terns following him and picking up the worms and insects turned up by the plow. Presently I heard the unmistakable cry of a Franklin's Gull, which soon was also following the plow, and also picking up worms. As it was only a short distance to the store I ran back and got my gun. Upon returning to the field I found two of the gulls sitting on a furrow at the other end of the field. The farmer assured me his horse would not get scared and gave me permission to shoot. When within about thirty yards I shot at one and killed it, and shot the other as it hovered an instant over the dead one. On having the birds in my hand I was greatly impressed with their beauty. The beautiful pink bloom on the underparts, the carmine bill and eyelids set in the deep black of the head, and above all its trim graceful figure so elegantly displayed in flight. The farmer joined me in a short time; he said they were known as Prairie Doves, and assured me that he had killed them with a whip while following the plow.

While on the way back I came upon a specimen of the Western Kingbird, but did not shoot it, being too much absorbed with my gulls. Upon dissecting them their stomachs were found to contain angle-worms and grubs, principally the former. Afterwards whenever I wanted any Franklin Gulls I would go out and find some one ploughing and would most always find from one to fifty following it. I collected a large series of these birds and noted but little variation, it being principally in the size of the bill and the black markings on the tips of the wings, but the species is unmistakable. Females collected on the 15th had eggs in them the size of a quail's, but by the last of May I could find no nests.

On the 15th I was out, with a horse and buggy, with my father. We went to the same swamp I was at on the 13th. On the way we came across a flock of about one hundred Franklin's Gulls sitting in a field. Having only two I wanted more. When I brought

down the first bird all the gulls in the vicinity began to hover over their dead comrade, and it was no trouble to kill as many as I wanted so when the eighth one fell from the flock I stopped, but the gulls continued to fly nervously around long after we had left.

When we reached the swamp we found more birds than on my previous visit. The first thing I shot was a pair of Wilson's Phalarope as they flew by me; being close together I got them at a shot. As I proceeded I found these birds very plentiful, collecting as many as I wanted. They were generally found in flocks of eight or ten swimming around in the shallow water, now and then thrusting their head under water in search of food. They kept up an incessant croaking sound, not unlike that of a duck, and fully as loud. I kept a sharp lookout for any Northern Phalarope, but could find none. A few of both varieties of Yellowlegs were scattered around but were very wild.

While watching some Sandpipers that were flying around I thought I saw some with a large amount of black on their plumage; so when they settled I crept up near enough and got a shot, killing three Red-backed, two White-rumped and one Pectoral Sandpiper. I was quite surprised to find the Red-backed Sandpipers so common here, for in a few days the Pectorals left and quantities of Red-backed and White-rumped put in an appearance. By the way I don't believe that the White-rumped Sandpiper (*Actidromas bonaparti*) has been recorded in the state before. I accordingly add it to the list.

The Godwits were very plenty this morning, and I took advantage of the opportunity and collected a few, four of the Marbled and another Hudsonian. There is a decided difference in the length of the bill of the Marbled Godwits, the female having the longest. Before going home I stopped to get a few Black Terns. Out of eleven birds of this species, that I collected while there, three had white patches on the throat at the base of the lower mandible. It seemed strange that this slight albinism was in the same place in the three birds.

The next day, the 16th, I went out in the country in a wagon with a man who was buying up cattle; was gone all day and had a pleasant trip. While riding through a pasture I saw a strange bird sitting on a rock, which I soon made out to be a male McCown's Longspur. I got out and spotted it, and as I did so an old horse standing near, in his frantic effort to get out of the country, slipped and

fell flat. "Now you have done it," said my companion, thinking I had shot the horse, but it soon gathered itself together and with tail high in air was soon out of sight. Several times we attempted to drive within range of Golden Plover, but it was no use they would fly every time.

Among other birds I secured during the day was a Western Willet, which upon skinning was found to contain a perfect egg. I was constantly on the lookout for nests of this species and the Godwits as well as Ducks, but as they nest at random anywhere on the prairie they are difficult to find: in fact I could find none.

I found several deserted nests of Prairie Hen and Field Plover that had been burnt over by fire. Large numbers of eggs are destroyed annually in this way and by the breaking plow. On the 17th I added a Forster's Tern to my collection. On the 18th, secured several Golden Plover on a weedy piece of ground that permitted a close approach to the flock.

On the 21st I was again in this same field with a young boy who had more or less of an ornithological spirit in him. He would chase the Plover up and I would shoot at them as they flew over me. Being concealed in the weeds the plan worked admirably, and we soon had quite a bunch. While thus hidden a small flock of snipe-like looking birds hove in sight. As they went by in close range, like a whirlwind, I had time to send a load of No. 12 shot among them, with the effect of killing two and wounding the third which dropped out of the flock a short distance ahead. Upon recovering my two birds I was delighted to find them to be Buff-breasted Sandpipers, a bird I had long been in search of. A light load of No. 12 was necessary to get the other wounded one. When we were well on our way home another flock rose from a wheat field: being unprepared for them they got off a good ways before I could shoot, but had the satisfaction of seeing one drop dead at forty yards, killed with No. 12 shot—a good distance I thought. While taking a rest my companion said he would like to try a shot at the Franklin's Gulls that were flying about: he would like to try and skin it, he said. So telling him about how to aim at a flying bird he shot at the first one that came in range with no apparent damage. The shot scared the others away; and when nearly half a mile from the place on the way home we noticed a large number of gulls hovering over something close to the road, which proved to be a dead gull still warm. It was

undoubtedly the same one he had shot at, as there were shot holes in the breast. I put the birds up in the afternoon and after supper strolled out to see what I could find in the way of eggs. I was walking through a field of high dead grass when a little bird fluttered out between my feet. I soon found a nest with five brown spotted eggs in. I went over to where the parent bird had settled, and after beating around a little put up a Le Contes Finch, "Ah! what a find," I thought, but no one will believe me unless I get the bird, so next morning I was there in good season. As I neared the nest the bird left, but I stopped her before she had gone far, and I picked her up—a Savanna Sparrow! I was badly disappointed of course, but I was thankful that I had made sure of the identity, as I would otherwise have called it Le Contes Finch. It always pays to *positively* identify your eggs.

On the morning of the 23d I took another new bird for the state, Nelson's Sharp-tailed Finch (*Ammodromus c. nelsoni*). It was shot on the edge of a swamp. Instead of having the "colors brighter and markings more sharply defined" as Coues says, it is just the opposite, paler, with the markings less sharply defined than in the common Sharp-tailed Finch (*I. caudatus*); the markings on the breast are totally *absent*, giving it the appearance of *Lecontei*.

In the afternoon I visited the mud-hole again and found the Red-backed and White-rumped Sandpipers and Wilson's Phalaropes had increased in numbers, while the Pectoral Sandpipers were nearly all gone. I got a few specimens of the pretty little Ring-necked Plover, also one particularly fine Golden Plover in faultless black dress. I looked all around to see if I could not find a Curlew of some sort, but could not. It surely ought to be a good place. The noisy Godwits and Willets were everywhere. Before going I found what I took to be an egg of the Shoveller Duck laying in the mud.

I was at this place nearly every day for a week afterwards, but found nothing worthy of note till on May 27th, when I added the third new bird to the state—Turnstone (*Strepsilus interpres*), a flock of which were found feeding among the Sandpipers. I secured five fine specimens. They were very tame and allowed a close approach. On this same day on the way home I shot a male Lark Bunting in the road, a rare bird in the state. I afterwards saw a female.

On the 18th of May I was hunting along the

bank of the Lac-qui-parle River about ten miles from Madison. Here was quite a growth of timber along the stream. In the top of a tall elm I saw a large hawk nest; presently a large bird left it, and as it lit on a limb I identified it as Krider's Red-tail, the light colored western form. I tried a shot at it but it was out of range. Upon climbing the tree a set of three eggs were found in the nest, not unlike those of our common *borealis*, but they contained live birds and could not be saved. The same day I took a set of four Marsh Hawks.

On May 30th I saw a fine male Lapland Longspur, thus making three species of Longspurs observed in the county. I was in hopes of finding Baird's Savannah Sparrow, but did not. The western forms of Grass Finch and Night Hawk were noticed. The Horned Larks seemed to have much more of the pink suffusion over the plumage than do specimens from Minneapolis.

During my stay I was surprised at the large number of birds killed by flying against the telegraph wires. Although I was on the tracks very little of the time I found no less than six Ducks, two Field Plover, one Pectoral Sandpiper, and one Marsh Hawk killed by the wires, and on my way home I saw a Meadow Lark strike itself and fall as limp as a rag. Think of the large number that must have been hidden by the grass that I did not see. The section man assured me that in the fall it is no uncommon occurrence to find five or six dead Duck and Prairie Chickens along the track on his section, and that rarely a day passes that he does not find one or more. The Marsh Hawk mentioned I found hanging to the wire by his wing, which was broken and wrapped several times around it.

A Wood Duck had struck the wire full in the breast with such force as to sever the neck and lay the back open from side to side a distance of three inches. Think of the thousands that are killed in this way in the prairie regions, instances of which are too often laid at the collector's door by people who don't know any better.

Well, on May 31st I got my traps together and started for home, arriving safely, well pleased with my delightful trip.

George G. Cantwell.

Minneapolis, Minn.

Now is the time to renew your subscription to the O. & O. Let us know at once if you intend to renew, and you will not be annoyed by having it discontinued.

Nesting of the Louisiana Water Thrush in 1889 at Raleigh, N. C.

This year we have found six nests of the Louisiana Water Thrush (*Sturnus motacilla*), viz.: Three which gave us sets of five eggs each, one which gave us a set of four, one which was never used, and one which the young had just left. Two of the nests were found by flushing the bird from the nest, and four by careful inspection of suitable localities.

The nests were placed above running water in the side of a steep bank, being always sheltered above by overhanging roots or the projecting bank, and their height above the water varied from three to five feet.

The nests were from three hundred yards to nearly a mile away from their feeding grounds, and were found in just the situations I expected from reading Mr. McLaughlin's article last year. His description of the nests also applies. The dates of sets were as follows: April 29, set of five, fresh; April 30, set of five good-sized embryos; May 2, set of five, fresh; and May 14 set of four, small embryos. This was the second laying of the first set found April 29.

*C. S. Brimley.
Raleigh, N. C.*

Nesting of the American Woodcock in North Carolina.

On March 29, 1889, a young friend of mine was returning home from fishing and had just started up a sloping hillside covered with bushes, that led down to the creek bottom, when his bird dog came to a dead stand. On investigating the matter he flushed a female woodcock (*Philohela minor*) from her complement of four eggs. Overjoyed at his find he brought the eggs home to us, two in each hand, and we were equally glad to receive them, and to reward him for his kindness.

The nest was a mere depression on a hillside leading from the pine woods to creek lowlands, and close by a lane leading up the hill from the creek meadows. The eggs were about three-quarters incubated, but we saved them with some trouble.

The Woodcock is a rare resident about here, although sometimes abundant in their migrations. I suppose about a dozen pairs may nest in this neighborhood.

*C. S. Brimley.
Raleigh, N. C.*

Nesting of the Black-throated Blue Warbler.

Although my first observations of the nesting habits of this species (*Dendroica caeruleo-virens*) have already appeared in the pages of the O. & O., I assume that some further notes on the bird itself and its nesting, as noted the past season, may still be interesting.

On the 24th of May, 1889, I took my usual holiday ramble for nesting purposes to the high-hard-wood west of "Wildwood," where three years ago I first discovered the nest of this species. Two weeks before I had noted the bird in full song in the high woods, in the rear of "Wildwood"; and on this occasion as I advanced into the woods, its melody, intermingling with that of other warblers and woodland birds, greeted my ear; and although the newly acquired foliage of the underwood rendered the view in some places very limited, I had not gone far when a rather bulky nest of some small bird attracted my attention and led me to the spot. This was placed in the forks of a small hemlock, about eighteen inches from the ground. The bottom was formed of fine dry leaves, but the nest proper was composed of woody fibre, some rootlets and a little hair firmly fitted together.

At first I thought it might belong to some new species, but a close examination of the nest and the one egg that it contained caused me to believe that it was another nest of the Black-throated Blue Warbler, and this opinion I afterwards found to be correct, for on my return on the 27th I found the owner seated on the nest, where she remained till I almost touched her, and then as she flushed off, making a rustling noise among the dry leaves, and low underwood, I fully identified her. To my regret the set consisted of only two of the bird's own eggs, and one of a Cowbird's, but as she had begun to incubate I took the nest and its contents, and they are now in my collection.

The eggs are of a clear white hue, irregularly marked on the surface, especially towards the large end, with reddish dots; average size, .65 x .48.

In a paper on the Wood Warblers of the vicinity of Montreal, by the late H. J. Vennor, and published in *The Canadian Naturalist*, Vol. VI, that writer, speaking of this species, says, "This delightful little warbler is exceedingly rare in Lower Canada. Although nothing of a songster, his colors are very bright and rich, and his plumage in general neat. A

small chirp is all that is heard from him as he flies from bush to bush. This warbler is seldom met with in our vicinity. One was shot here some four years ago, and I have not heard of any having been seen since. Our museum has a very good specimen of this rare bird. Certainly they do not breed here regularly, if at all: a stray individual may sometimes remain to rear its brood on our mountain, but not often. Audubon traced this warbler through the upper part of the state of New York into Maine, the British provinces and the Magdalen islands in the Bay of St. Lawrence. According to his account the nest is usually placed on the horizontal branch of a fir tree, seven or eight feet from the ground; nest composed of strips of bark, mosses and fibrous roots, lined with fine grass and an inner lining of feathers."

"When this warbler is feeding among the branches of a tree one can hear quite distinctly the snapping of his bill, as he pursues the insects from twig to twig. He is extremely active, but as we have mentioned before has no real song. Not even during the pairing season does his note become more musical.

"Before dismissing this interesting bird I may be allowed to quote a few lines Wilson has written respecting it. He says: 'It is highly probable that they breed in Canada; but the summer residents among the feathered race are little known or attended to. The habits of the bear, the deer, and beaver are much more interesting to those people, and for a good substantial reason, because more lucrative; and unless there should arrive an order from England for a cargo of skins of Warblers and Flycatchers sufficient to make them an object worth speculation, we are likely to know as little of them hereafter as at present.'"

After reading the above article in the light of more modern discoveries and scientific facts, the field ornithologist is likely to be considerably surprised at the small amount of information possessed by the fathers of American ornithology regarding many of our woodland birds. Whatever may have been the nesting habits of the Black-throated Blue Warbler in the days of Audubon, it does not appear to practise the same modes now, and, although until lately this bird was unknown to me by its proper name, yet I remember it as a distinct species, and of having seen several of its nests when I was a boy many years ago, in the township of Peel; and it sang quite attractively then; and the nests then, as now,

were placed near the ground; but those observed were generally in wild hop-vines near the edge of the woods.

One pair, I remember, used to frequent a piece of thick woods in the bend of the creek, where it issued from the forest unto our farm and to me; it was then known as the Black-backed Warbler, and under that term I described it among other warblers, in a series of articles on our wild birds in *The Rural Canadian*. And in contradistinction to the time when Wilson wandered and wrote, there are now quite a number of persons in the Canadian provinces giving the keenest attention to the appearing and life-histories of the feathered race, and when Venner wrote the above paper he confessedly knew little of this species or he would not have characterized it as a songless bird.

But though this little wild-wood wanderer warbles its song with clearness and animation, especially for some weeks after its arrival from the south, yet it must be admitted that its music is not remarkable for its melody, for in its refrain there seems a melancholy plaintiveness, as though the little performer was complaining that it was seeking in vain for something that it had loved and lost; but as adding a varying strain to the great orchestra of the wilderness it must ever be interesting to the lover of bird music, and the student of animated nature.

This species is about five inches in length. In its spring plumage the color of the male on the upper parts is of a uniform slatey blue, while the cheeks, chin, throat, and sides of the breast are deep black, the hinder lower parts are pure white, and there are some white dots on the wings and tail. Its favorite habitat is high hard wood, timbered lands, and while the male loves to warble his song notes high among the branches, as he gleans his insect food from the foliage, the female usually selects a more lowly site for the cradle of her progeny, and in common with most of the others of the smaller species of birds, that nest in exposed positions, she is often compelled to be the foster-mother of one or more of the young of that feathered parasite, the Cowbird.

William L. Kells.

Listowel, Ontario, Canada.

A Snake.

Southern Colorado has a superabundance of the snake family, ever since the senseless legis-

lators of that district placed a bounty on the scalps of vermin exterminators.

Just why a robin or bluejay's life should be held more valuable than the Yellow-tailed Hawk or the Black Eagle, whose virtues are many and mistakes few, no one but an Indian peace commissioner or a legislator could ever understand.

In 1886, I was witness to a curious combat between two large black (Frank Webster says they're golden) Eagles and an enormous racer snake, near old Ben Butler's ranch at Rattlesnake Buttes in Huerfano County. The Eagles had nested in the northeast Butte, and while foraging for a meal one day Mr. Eagle came across the racer. I rode within forty feet of the contestants and watched what to me was a novel sight. The great bird (9' 11" from tip to tip extended) would swing down at the snake which, flattened and half buried in the buffalo grass, would await its blow and then hissing, spring for the eagle's neck. Once coiled on the bird's neck there would have been but scant resistance to those terribly constricting folds, for the red racer is no contemptible embracer. The eagle seemed instinctively to know this, and as soon as the great black arm had delivered its blow, the whole body would be violently " jerked," so that the heavy tail was the only object his snakeship could attack. Whether the eagle would have eventually tired the snake or the snake outgeneraled the eagle I know not, for I became aware that the eagle's mate wanted a finger in the pie. Swiftly and silently as a thunder-cloud the new comer came on, and, poising hardly for aim, dropped like a bolt at the snake. So unexpected was this onslaught that it very nearly ended the fight then and there. With the utmost difficulty the racer dodged a blow that if properly received would have broken a man's leg. And now the two eagles made life very dismal for that red racer. First one would swoop down, striking viciously with right or left and then number two would come humming right at his mate's tail, and make that snake sigh for a hole in the ground as the one desideratum of this mundane sphere. Becoming emboldened as the snake showed signs of distress the eagles became more careless with each swoop until as the male bird swept past him, in sheer desperation apparently, the big racer launched himself and caught on the coveted place. With two swift motions as many coils were passed around the doomed bird's throat, and although the eagle rose it was evidently with

great pain. Several times he turned nearly over in futile endeavor to reach his strangler with his sharp talons, but the snake had too good a position to relax one iota of the advantage. So as the great bird's strength gave out the two drifted flutteringly back to the earth. All this while the female has hovered close to her mate screaming and trying to reach the racer, but so deeply was the latter bedded in the eagle's feathers that it was impossible. As soon as the male had fallen, however, his mate alighted close by, and now had the racer been disposed he might have escaped. But flushed with his triumph he still clung to the male bird's neck, threatening the frantic mate with glittering eyes and swiftly darting tongue. The female spent no time in bringing matters to an issue. With the peculiar waddle of these birds when on foot she boldly advanced, holding her left wing out as a shield. The snake drew his head back and waited for the opportunity to seize the female as he had her mate. That chance never came. A sudden rush and out of the dust rolled the racer's head and the upper part of the body, cut squarely in two by one snap of those mighty mandibles. I rode closer and saw the female busily cutting the rest of the body from her mate's neck. Getting too close, the great bird rose in the air and attacking my horse and self I was obliged to kill her. The male bird measured nine feet and eleven inches from tip to tip extended wings, and the female $\frac{3}{4}$ of an inch more. As near as I could make the length of the racer, he was eight feet six, and so tightly had he wound himself about the male bird's neck that two great purple ridges stood up fully an inch, like a "gallus" collar, where he gripped. I was obliged to cut each coil twice, for the muscle held tense, in order to remove him from the eagle's neck. Altogether it was a strange fight, and the generalship displayed by that red racer in that battle, has given me a profound respect for his family that I never had before, but shall ever retain. *Honda.*

An Albino Messenger.

Gambel's Sparrow (*Zonotrichia gambeli*), one of our first forerunners of the fall migrations like a snowflake from the far north, was brought me by a neighbor's boy, who had shot it from a flock of House Finches (*C. frontalis*) and Western Lark Sparrows (*C. grammacus strigatus*), feeding among the dry mustard.

He thought it was a *white cauury*, and my first impression was the same until a closer examination showed it to be a sparrow, and a hard one to determine. I will try to give as clear a description of this white albino sparrow as possible.

The head and neck are pure white; back, rump and wings have a sulphur wash on the edge of the feathers, giving one an impression of its being a white canary; two of the tail feathers on each side of the tail are the natural color of Gambel's Sparrow; one side of the vent or under tail coverts are buff, also several feathers on the sides of the body, and what seems very odd is, that a number of the under feathers of the side are smoky or sooty black at the base; this is only in one place. This is not the case in any of the Gambel's Sparrows I have put up in ten years' collecting, approaching melanism; there is one dark feather on the rump and shoulder. The feet and legs are pale straw color, while the bill is chrome yellow, losing its color as the specimen dries. The eyes were *pinkish gray*, and on skinning the bird I found the skin of the eye ball to be *grayish-white*, not dark slate as in most small birds. The skin was wholly white. This female sparrow was very fat, and seemed in no way diseased, showing in this case albinism was not from the cause of any disease or weakness of the body. *W. Otto Emerson.*

Haywards, Cal., Oct. 2, 1889.

Seven Eggs of the Robin in One Nest.

On July 5, 1889, seven eggs of the Robin (*Merula migratoria*) were found in one nest in Montgomery County, Penn. The bird was sitting, and all seven of the eggs were equally incubated. Four of them are smaller than the normal size, and of a darker color than usual, while the other three are like ordinary eggs of this bird. The difference is so perceptible that they can be readily separated, and would seem to indicate that two birds had laid in the same nest.

A very odd runt set of three eggs of the Robin were also taken in the same locality on May 19, 1889. They were fresh, and the parent bird was sitting on the nest. Singularly enough they contained yolks, for their size is so diminutive that I did not expect to find any in them. They measure: .78 x .65; .80 x .67; .85 x .69. *J. P. N.*

The Family Turdidæ in Orleans County, N.Y.

The family *Turdidæ* or Thrush family is, comparatively, very well represented in Orleans County.

The thrush family in North America comprises twenty-six well-defined species and sub-species.

Of this number, fifteen are confined to the west and south-west, and one is confined to Greenland; leaving but ten of possible occurrence in Eastern United States.

Out of this possible ten seven are known to occur in Orleans County.

Mentioning these in the order of their classification (A.O.U. nomenclature) we have, first, the Catbird (*Galeoscoptes carolinensis*). This well-known bird is one of our most common summer residents from the first week in May, the time of its arrival from the south, until the last of September. The Catbird breeds abundantly, building its nest of sticks, twigs, rootlets and leaves in a bush, low tree, or a cluster of vines, generally in a thicket or wooded place. The eggs are generally four or five in number, and the young birds are hatched about June 8-15. The Catbird is seldom seen outside of its forest home, but there it is abundant.

Next in order we have the Brown Thrasher (*Harporrynchus rufus*) which, however, is of very rare occurrence here. Why this is so is not known. It seems to be quite common elsewhere throughout the eastern United States but in this particular section of Western New York it certainly is quite rare. However, a specimen is occasionally seen, and a friend of the writer, who resides just over the line into Genesee County, secured a nest with eggs from the thickets of Tonawanda Swamp. The song of this bird has been the remark of many writers for its variety and beauty, and I fear Orleans ornithologists will have to rely wholly upon their words.

The Wood Thrush (*Turdus mustelinus*) is a very common bird of our woodland in summer. Its beautiful flute-like notes are heard in this locality, for the first time, about May 10th, although I have recorded the arrival of *mustelinus* as early as April 21st (1888). It leaves for the south early in September. It breeds commonly, building its nest about the 20th of May and usually laying four eggs, though quite often only three. In this locality the Wood Thrush is quite often imposed upon by the Cowbird. The nest is as a rule in the top of a

sapling and is composed to a goodly extent of leaves, although twigs, roots and grasses as well are in its make-up. The name "Flutebird," derived from the striking resemblance of its notes to that instrument, is also given to this bird.

Wilson's Thrush (*Turdus fuscescens*) arrives and departs at about the same time as the Wood Thrush, and like that bird is a resident of the forest and thicket. It is not, however, as plentiful as the Wood Thrush. Its nest is usually on the ground at the base of a sapling, although frequently it is placed a few feet from the ground, and may contain three or four eggs.

The Olive-backed Thrush (*Turdus ustulatus swainsoni*), next in order, differs from the thrushes already spoken of in that it is not a summer resident in Orleans County, but a migrant.

Wintering south of us and spending the summer and breeding north of the United States, it passes us on its way to and from its breeding grounds respectively, during the spring and fall. Its occurrence is rather rare, and as it keeps for the most part to the tree tops and does not tarry long during its migrations, it is seldom seen. An uncommon incident in connection with this bird in this county is the fact that it has been known to breed here. Contrary to the rule of its breeding far to the north, Frank H. Lattin, of Gaines, on each of the dates, June 2, 1880, and June 1, 1881, found a nest of this bird. Both of these nests were in small saplings, one four feet from the ground, the other ten. The first nest contained four eggs while the second contained three eggs with one of the Cowbird. The breeding of this bird in Orleans County certainly proves a remarkably southern extension of its breeding habitat. The Olive-backed Thrush is a sub-species of the Russet-backed Thrush of the Pacific coast region.

The Hermit Thrush (*Turdus aonalaeschkei pallasi*), far-famed and noted for its wonderful and soul-stirring powers of song when in its summer home, is considered a variety of the Pacific coast species known as the Dwarf Hermit Thrush. Like the preceding species it occurs in this county only as a migrant, and is the most boreal of all the thrushes. During the first or second week in April it may be seen on the ground in our forests on its way north, and does not seem at all shy, and will allow one to approach within a very few feet. Again in October it passes us on its return trip. It is quite rare.

Last, but by no means the least, among the thrushes of our county is the American Robin (*Merula migratoria*). Arriving by the middle of March (and sometimes earlier) and remaining until November it is our most abundant summer resident. Not infrequently a single one or so will remain over winter, as was the case the winter of 1886-87 and the winter of 1887-88. I have recorded a robin when the thermometer registered 2° below zero. The nest is placed almost anywhere in any convenient place, and the number of eggs is almost invariably four. In one instance, of which I know, a nest of the robin was found which contained spotted eggs. The young birds are hatched sometimes as early as May 1st, and two or sometimes three broods may be raised in a season.

Neil F. Posson.

Medina, N.Y.

Appearance of the Tit-lark and Black-throated Bunting in Worcester County, Mass.

On the morning of October 3d, while out collecting, I was crossing a large ploughed field in pursuit of a bird, when suddenly a flock of about twelve birds rose before me. From their note I knew they were something I had never seen before. I looked around and saw one on the ground at some distance to my left. I advanced and shot it and found it to be a Tit-lark. I looked for more but could not find any as the flock had gone.

I went on and returned in about two or three hours and found a flock of about fifteen or twenty. I shot two fine specimens before they could get out of reach. Later in the day I shot a Black-throated Bunting. This was the only one I could find.

According to Mr. C. K. Reed this is the first appearance in Worcester County, Mass. For several years ornithological notes have been taken in Fitchburg, and these birds have never been recorded before. This year, as usual, I find the Snowbirds in great numbers over a belt of about thirty miles which I have travelled, but last year there were none here except on February 5th and 6th, when three or four were reported to me. I did not see any.

The Red-bellied Nuthatches are here also; these have not been seen before for several years.

October 19th Mr. Kimball and myself saw a flock of about seventy-five Tit-larks near Lunenburg, Mass.

L. C. Greene.

Difficult Climbs.

I have read with much interest Mr. G. B. Bender's well written account in the June number O. & O. of an expedition into Texas for the eggs of the Swallow-tailed Kite.

That which particularly struck my admiration in this narrative was the description of the tremendous climbs made to the nest by Mr. Thomas S. Gillin, and I think the readers of this journal as well as myself would be pleased to have a more particular account of how they were accomplished.

One climb is described as up a "Sycamore six feet in diameter, the first branch eighty feet from the ground, the nest over one hundred and twenty feet up, on a branch about as thick as a man's arm."

Another nest is "built out on a very small limb, afterwards found to be over two hundred feet from the ground, and no limbs for over a hundred feet."

Great Scott and little fishes! Just think of it! Two hundred feet! Why the very thought makes a man's head swim. Mr. G. is certainly entitled to the belt as the prince of climbers.

But how was this hundred feet surmounted without limbs for resting places? Was a strap or claw gloves used? I thought I had done some tall climbing in my time, but Mr. Gillin discounts me half way.

There are some such trees on Spoon River, as Mr. Bender describes, but where they stand straight and without limbs I would as soon undertake to ascend the outside of a shot tower as to try to climb up the trunk of such an one.

True, when I find a hawk's or an owl's nest in one of these colossal giants of the forest I generally manage in some way to reach it, usually by calling to my aid ropes, or improvise an Indian ladder, or perchance, where there is one handy, by falling a smaller tree against the one containing the nest, and getting to the limbs in this way.

The task of getting up the smooth straight trunk of a Sycamore six or seven feet in diameter would be about as easy as climbing up the side of a mill. It might be accomplished by the use of a rope or climbing strap. But think how much strap would be required to encircle a man and then go around a tree eighteen or twenty feet in circumference.

Will Mr. Bender kindly tell us just how these tremendous climbs were accomplished, and oblige

Dr. W. S. Strode,

Bernadotte, III.

Birds of Chester Co., Pa.

In Mr. Ressel's *Birds of Chester Co., Pa.*, I will omit criticising transient visitants. But regarding his *Summer residents* I will say that after twenty years of field collecting in this county I have received as yet no authentic proof of any of the following species *breeding* here:

Buteo lineatus (Red-shouldered Hawk), *Empidonax flaviventris* (Yellow-bellied Flycatcher), *Corvus ossifragus* (Fish Crow), *Melospiza lincolni* (Lincoln's Finch), *Helminthophila chrysoptera* (Golden-winged Warbler), *Helminthophila ruficapilla* (Nashville Warbler), *Compsothlypis americana* (Parula Warbler), *Dendroica blackburniae* (Blackburnian Warbler), *Dendroica rigorsii* (Pine Warbler), *Dendroica discolor* (Prairie Warbler), *Seiurus noraboracensis* (Water Thrush), *Seiurus motacilla* (Louisiana Water Thrush), *Sylvia atricapilla* (Hooded Warbler), *Polioptila caerulea* (Blue-gray Gnatcatcher), *Turdus fuscescens* (Wilson's Thrush).

Samuel B. Ladd.

West Chester, Pa.

A Remarkable Runt Egg of the Bluebird.

A set of six eggs of the common Bluebird (*Sialia sialis*) collected on May 18, 1889, in Montgomery County, Pennsylvania, contains one of the most remarkable runt eggs that I have ever seen. Five of the eggs in the set are of the normal size, but the other only measures .44 x .38. When it is remembered that the average size of the eggs of this bird is .84 x .62, it will be seen how very small the runt is. The shell is considerably thicker than that of the other five, and it contained no yolk. All six of them are of the normal color, and were perfectly fresh.

J. P. N.

Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

By the time that this number reaches our readers the December issue will be well underway. It will contain the index for the volume. If those of our readers who intend to subscribe for Vol. XV. will notify us at once it will be of great assistance to us.

Brief Notes.

As the close of the present volume draws near we glance over the words of encouragement, hints and suggestions that have been received from time to time from our readers, and shall try and profit by them. Perhaps a general outline of the material on which we build will open new ideas in the future.

A writes "The O. & O. is a capital publication, and should be in every household"; if he did not already take another which is more than he has time to read he would subscribe.

B. "I am an interested reader of the O. & O. through the courtesy of my friend who loans it to me. I wish it financial success."

C. "Sample copy received. Just what I have wanted for a long time. I enter college next week for a seven years' course. When I graduate, if you still continue publishing, I will subscribe."

D. thinks that he discovers a lawless spirit which he strongly denounces on a postal card, wants it discontinued, and adds that the ornithological interest in his school is dying out. [We extend our sympathy and think we discover in him the ability to preach its funeral sermon.]

E. is the Secretary of a Young Men's Christian Association. They have six hundred and twenty members belonging to the most substantial families of the town. Unfortunately they are out of funds, and thinks it will be of immense advantage to us to donate the O. & O. "Our feelings are touched and we donate."

F thinks that we should avoid expressing any opinion, as doing so will surely produce antagonism and not only cut down our subscription list but hurt the personal business of the editors.

G fully endorses the stand we take and says that it is high time some one awoke to the interests of naturalists. He sends two new subscribers.

H writes that he is tired of seeing the lists of birds found in certain counties; never reads them and considers them of no earthly use.

I sends for all back volumes that contain local lists; wants all such as can be obtained.

J discovers an error in a scientific name, and thinks it a serious damage to the science of ornithology. [Prospects of a suit?]

K discontinues because his article did not appear the week it was received. [It was not signed and we were never able to translate the first paragraph.]

L thinks that he should have fifty extra copies and two hundred separates of his article gratis. [If this was done in each case it would double our expense of publication.]

M, who lives so far west that the sun does not reach him till the afternoon of the fourth day would subscribe if we could furnish him a copy on the day of publication.

N failed to receive his last number. If another gets lost in the mail he will not renew next year.

O refused to renew because the magazine was stopped when his subscription expired, while

P, who lives three thousand miles from him diagonally south-east, fairly scolded us for running over, considered it a trick.

Q finds the print too fine, cover not a congenial color; thinks one of the brief notes was aimed at him, and has discovered that a man that he had a dispute with is a subscriber. He withdraws.

R called at our place and asked if the O. & O. was "any good now." He was not satisfied with our

assurance that it was, and unfortunately we had no witness.

S has been offered the Ank with an A. O. U. associate membership thrown in at subscription price, wants to know what inducement we can offer and he will consider which to accept.

T wishes us to denounce the writer of an article as a fraud. We meet the writer daily. He stands six feet in his stockings and carries a fist like John L. Sullivan. We hesitate.

U thinks that we should increase the price of the magazine. [He subscribes to it through a cut rate agency.]

V is the victim of sending his subscription to an irresponsible party and blames us for the loss.

W used to be an ardent subscriber. He wrote an article and someone criticised it. His nose was broken. But he has the kindest feeling for the present publisher.

X does not think it pays him to devote any time to it. When recently elected to a position it was quite amusing to see how quickly he sent clippings magnifying his inauguration for us to publish. We did not think it would pay!

Y would subscribe if he felt sure the O. & O. would not stop publication but he is very distrustful, and thinks that he will take no risks.

Z knows it all, so requires no information.

Meantime, one of the editors would like the entire space devoted to oology, another would like to see bugs crawling over all its pages, while the third sits on the fence and don't know what he wants.

We assure our readers that the O. & O. will continue to run in harmony and good will in 1890, and we will meet the views of all satisfactorily.

C. F. Emery of Rockville, Conn., recently shot a half Albino Woodcock which he is having stuffed. J. M. Wade.

Wm. G. Smith killed a fine plummaged ♂ Sabine's Gull on the 12th of October at Loveland, Col.

A Canada Jay was taken at Arlington Heights, Mass., October 16th, by E. B. Winship. Adult ♂. Stomach filled with bees and wasps. J. R. Mann.

Mockingbird seen by E. J. Smith at Sherborn, Mass., October 23d, 1889. Showed no signs of confinement, though quite tame, allowing approach within a short distance.

A peculiar case of sickness is reported at 41 Walnut street. Little Miss Katie Cowen has been sick for some time, and the doctors were at a loss to ascribe the cause, though she kept wasting away from day to day. A lady friend of the family gave her a medicine that acted as an emetic, and the girl threw up a little black water snake about three inches long. Since then she has felt relieved, but is very weak. Where the child swallowed the snake is a mystery.—[Hyde Park (Mass.) Times.]

We do not think a copy of our September issue had any bearing on it, and Honda lives in an entirely different part of the town.

We tender our thanks to Henry J. Thayer, Esq., of Boston, for a fine specimen of the common black snake. It measures four feet, is in good condition and makes itself perfectly at home in our office.

W. P. Cones while collecting at Sydney, C. B., Aug. 2, saw a crow with large white spots on each wing, covering most of the primaries.

A Pomarine Jaeger, ♀, was taken on the Merrimac River July 5th, and a Richardson Jaeger, ♀, in Ply-

mouth Harbor, Aug. 23d, both were sent to a A. M. Tufts, taxidermist, Lynn, Mass.

A specimen of the Snowy Owl was taken at Gloucester, Mass., Nov. 10th, during a north-east rain storm. This is, I believe, the earliest date of the capture of one of these birds in Massachusetts. Harry Gordon White, U. S. Fish Comm., Gloucester.

We received a specimen from Plymouth, Mass., shot about the same time.

Rumor says that at a meeting held in Boston some of the members of the fish and game association wasted a good deal of time and nervous energy in discussing the dreadful manner in which Cahoon was killing Tern at Chatham. If such was the case we advise the little ones to rest easy. Mr. Cahoon left early in spring for Halifax and Newfoundland, to collect scientific specimens for Mr. Batchelder, a prominent scientific ornithologist and member of the A. O. U., and has not yet returned.

Publications Received.

"Bulletin of the American Museum of Natural History" (New York), Vol. II, No. 1, 1887.

"The West Indian Seal, *Monachus tropicalis* (Gray)," by J. A. Allen. Six full paged illustrations.

Vol. II, No. 2, 1889, "Lake Champlain Fossils" with observations by R. R. Whitfield, 7 full page illustrations. "List of Birds taken in Bolivia" by Dr. H. H. Rusby, with field notes by the collector. By J. A. Allen.

"Transactions of the New York Academy of Sciences," Vol. VIII, 5, 6, 7, 8, 1888-9, edited by Daniel Strobel Martin. Beginning with observations on the Termites, or white ants, of the Isthmus of Panama and ending with recent archaeological excavations at Athens. They present many exceedingly interesting subjects.

"Transaction, Kansas Academy of Science, Topeka, Kan.," Vol. X, 1885-6., containing "Additions to the Catalogue of Kansas Birds." "Discovery of a Fossil Bird Track in Dakota Sandstone," and other articles of interest.

"The Wolverine Naturalist," Kalamazoo, Mich. A monthly magazine of 16 pages, devoted to Natural History. This magazine, which will begin this month, is to be under the management of Morris Gibbs, M.D. Dr. Gibbs is a well-known ornithological writer, his articles appearing from time to time in the O. & O. The style of "Scolpax" has a charm that cannot fail to be of great value in this new venture. We wish the Wolverine success.

"Now Doctor Gibbs, shoot out your squibs,
And sprinkle them well with fiction;

Stick in some fibs, it will tickle the kids
And the old chaps—can't obtain a conviction."

Send him 50 cents and see if he takes our advice.

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No. 12.

The Dark Side of Collecting.

Successful finds and happy endings characterize nearly all the collecting experiences described in the pages of the O. & O.

In a series of brief sketches I will tell of experiences showing the reverse or dark side of a collector's life, of the disappointments, falls, and accidents that are a part of the lot of every active seeker after oölogical treasures.

One cold blustering day in March, 1887, I was prospecting for an owl's nest in some big timber, on Spoon River. I had previously heard the male hooting, and knew the nest should be somewhere in these woods. Some downy feathers adhering to the edge of a cavity in a large soft maple finally assured me that I had found the right tree. Rapping the trunk with my climbers a *Bubo* left the hole and flew to some distance before alighting. Sizing up the tree I found a difficult task before me. Straight as the side of a barn was the tree, the trunk three and a half feet through, the bark so smooth as to furnish almost no hand hold, and the cavity twenty feet from the ground caused me to hesitate before trying so difficult a climb. But the prospect of securing one more set of valuable eggs determined me. Adjusting my climbers I carefully commenced working my way up the tree. All went well until I neared the cavity containing the nest; here a bulge in the tree necessitated extra caution in climbing for a few feet. I was just considering myself safely over the danger point and foolishly straightened up on my climbers to get a hand hold of the edge of the cavity, when suddenly the sharp spurs cut out of the soft wood and bark of the tree, and I went down flying. The tree, a double one, divided at five feet from the ground, and striking in this crotch I tumbled to the frozen earth, striking on my face and head. After the exhibition of fireworks was

over I got upon my feet and took an inventory of the damage done. A five-dollar pair of pants badly used up, the buttons torn off my vest, one ankle badly sprained, the skin rubbed from the inside of my legs and from my wrists, the side of my face, neck and one ear scratched and torn, from which the blood was running freely. Going to a creek close by I broke the ice and washed the dirt and blood from my hands and face. The smarting of my wounds now aroused my ire, and I determined to know the contents of that hole in the old maple at all hazards. Striking a bee line to a wood-chopper's hut a half mile away I borrowed his axe, and returning cut a long pole out of which I fashioned an Indian ladder. Elevating this against the side of the tree I was soon at the top of it peering into the hole, only to find it occupied by three downy *Bubos* and some pieces of rabbit. The old owls now appeared and showed such an earnest desire to relieve me of a part of my scalp that I made haste to get down and depart from their premises.

One day in April, 1888, I was riding about through a dense growth of young oak timber searching for the second nest of a pair of Great-horneds, from whom I had early in the season robbed a set of two eggs. I finally found the nest, that of a Crow, reconstructed and about twenty-five feet up in a wild cherry. It contained one very young owl, which I did not molest. A short distance from this nest I saw a Zebra Woodpecker (*Centurus carolinus*) fly from a hole in a dead black-oak stub. Dismounting I went to the tree and started up on the run. Having ascended about five feet the bark suddenly slipped from around the trunk, and I found myself on my back gazing up at the stars, though it was midday. As soon as the breath returned to my body I got up, and slowly and deliberately made the ascent, finding four fresh pearly white eggs, which soon caused me to forget the shaking up that I had received.

The zealous efforts of boys to assist in procuring desirable eggs sometimes terminates disastrously. A few instances to illustrate:

In February, '87, I had secured a set of two eggs from a pair of Great Hornets. Three weeks later I again located the female in possession of a Crow's nest of the previous year. Wishing to make sure of the lay being complete I decided not to disturb her at this time but to return in three or four days and investigate. But this delay caused the loss to me of the set. A boy, finding the nest, mounted to it by the aid of a long ladder, and securing the two eggs started to bring them to me, boy-like, putting them into his coat pocket. Falling in with a chum on the way they got into a scuffle, forgetting all about the eggs, but subsequently was reminded of their presence when thrusting a hand into his pocket he found them ready for "custard."

A few days later this same youth discovered one of my Redtail's nests. Getting his gun he shot and killed the female, and also broke two of the three eggs on which she was setting. With the dead hawk and remaining egg he came to me with much the air of a hero. My disgust was beyond expression.

To make it interesting to them I had offered to a few boys a small premium for all full sets of certain bird's eggs which they would bring to me. This reward in a few instances aroused theirupidity and caused an attempt to practise deception upon me.

For instance, two brothers one day brought me three white eggs of a domestic duck which they declared were those of the *Bubo virginianus*, as they had got them out of a hollow tree, and had seen the bird fly from it. At another time these same lads brought me five eggs of the Peafowl which they insisted were those of the Wild Turkey.

One day a young man came to me with five small eggs of the Silver-spangled Hamburgs which he stoutly declared had been found high up in a hollow red oak tree, and were the eggs of the Prairie or Barn Owl. The omission of the letter "f" was all that was wrong, and upon being closely questioned he acknowledged the deception.

The thinnest deception that boys sometimes try to practise on me is to bring me a pair of Dove's eggs declaring them to be those of the Whip-poor-will, for they had seen the latter bird plainly, in fact, had flushed it from the eggs. Their mortification would be very apparent when I would show them the genuine eggs of the *Caprimulgus vociferus*.

Many collectors could tell of difficult and dangerous climbs to nests to find them occupied by young birds. March 20, 1887, I found an Owl's nest seventy-five feet up in a red oak which was three and a half through and standing on a steep hillside. After much hard work I made my way up the trunk and way out on a limb to the nest, to find three young *Bubo Vs.* Upon reaching the ground I was so nearly exhausted, that I lay upon my back and rested for some minutes before feeling able to mount my horse and resume my journey.

A few days after this I climbed eighty feet up a big Sycamore to a cavity from which I had flushed a Barred Owl, only to find four downy young *Syrniums*.

At another time I climbed to the tip-top of a very tall tree to find two pipped eggs of the Red-tail Hawk.

That parasitic nuisance, the Cowbird, has been to collectors the bane of many otherwise desirable sets of eggs. Last spring I found a nest containing two eggs of the Cowbird and one of the Cardinal. In the hope of encouraging the latter to complete a set I threw out the two eggs of the parasite leaving the one of the Cardinal. Returning in three days I found this egg gone and the nest partly demolished. I have had a similar experience with the Vireos, Chewinks and Orioles.

Last May a naturalist friend in the kindness of his heart presented me with a Raccoon (*Procyon lotor*). Of all the imps of mischief that ever was created he proved to be one of the worst. Secure him as safely as might be, he would manage by some means to occasionally free himself from his collar and chain, and then the mischievous pranks he would play were enough to try the patience of a saint.

One day in June we were all going from home for a day and had taken extra precautions to secure "Jack" to his post in the backyard. But alas! on returning in the evening he was nowhere to be seen. My first thought was about my eggs; my season's collecting of Hawk's, Owl's, and a few others, were in a box which I had put for safe keeping high up on a shelf in a closet. On going to this place the "Coon" jumped out of the box and scampered off to a room in a distant part of the house. The scamp had effected an entrance by climbing upon the portico and coming in through an up-stairs window. Then coming down stairs he had smelled out the box of eggs. Oölogical ruin stared me in the face. A pile of shells lay upon the floor and upon looking into the box

my heart sank within me. Of the twenty-seven Redtail's eggs collected during the season, all were destroyed but three; also of Cooper's Hawk, three; Barred Owl, four; Ruffed Grouse, about three dozen; of Crows an indefinite number. Luckily my season's collecting of the Great-horned Owl were at the bottom of the box, and not having yet reached them were safe.

I never possessed very much skill in quoting profane history and therefore could not get satisfaction in that way. But there was one thing I could do and that at once. Going to the room where he had retreated I found him concealed in a bed, all except one eye with which he peeped out cunningly at me, as if to ascertain what I was going to do about it. This I had already determined upon, and taking him by the tail he was conveyed to the woodpile, where with a sharp axe his spirit was sent to that "haven of rest" from which mischievous "Coons" never more return. Woe be to the individual that ever again dares to offer me a raccoon.

One of the most amusing experiences that ever fell to my lot as a collector was in the spring of 1888. I was out for an afternoon of it and was accompanied by a hard-headed, black-eyed gamin of the village, whose front name was George. Our route lay over woodland pastures, down into deep shady hollows, up steep hills, and then across cultivated fields, from one stretch of woodland to another, when we had reached a certain large hawk's-nest tree, four miles from the village. We were to return by another route. We were having great luck and consequently were in correspondingly high spirits. Already there was in our collecting boxes fifty eggs of the Crow, of the Chickadee several sets, White rumped Shrike one set of five, Hairy Woodpecker one set of four, Long-eared Owl one set of five. Suddenly our attention was arrested by the noisy and excited cawing of a pair of Crows some distance in our front. Hastening in this direction we soon came in sight of a nest in a tall, straight sapling. The crows perched overhead were making a great ado about something that they appeared to see in their nest. George, who had insisted on doing nearly all of the climbing, was half way up the sapling before I could get one climber adjusted. Little did he suspect what was awaiting him at the nest. As his face came on a level with it, a huge black snake (*Coluber obsoletus*) ran his head over the edge and darted out his tongue almost in the boy's face. Great Caesar! the way that lad came down that tree was truly aston-

ishing. Nor did he pause when he reached the ground, but shot off through the woods like a streak of lightning. Putting on a pair of gloves I ascended the tree, and taking Mr. Black Snake by the neck removed him from the nest, where he had doubtless resorted for the purpose of feasting upon the young crows which it contained. Taking the reptile home with me I found his length to be five feet and a half, and he proved quite an attractive addition to my den of snakes.

Dr. W. S. Strode.

Bernadotte, Ill.

Hunting Herons with a Camera.

I had watched the going and coming of Great Blue Herons as they passed over to and from the hill east of the town, to the bay shores southward, early mornings, then back, after the day's fishing, at night to their home-roost in some deep canyon. I had a desire that, after many years of information, led me to hunt these Great Blue Herons' rookery with a camera instead of the usual gun and shells.

I started out one morning with a friend, in April, 1887 (one of those days that occur only in the climate of California), with my mind filled with the great sight I expected to meet, and the pleasure of a day among Nature's most beautiful things, green hills and trees teeming with spring life. The old white horse took us leisurely along the unused road, up a grade of four miles.

Meadow-larks were singing from fence-rails to their mates, busy in the grasses; Red-winged Blackbirds showing off their bright shoulder-straps from every long weed-stalk, throughout the hay-fields; now and then whiz would go by a Hummer to its bower home. When the grade began in earnest and Old Faithful commenced to blow, I gave him the rein to suit his own gait. The atmosphere was filled with hot-house steam of spring, and made the sweat roll from us both. After getting up the first ridge the air became cooler from the bay breezes across the valley. Ruddy Horned Larks were common on these ridges; some had begun incubation, as we found by shooting specimens. Across a deep canyon side could be seen a Golden Eagle's eyrie in the top of an old white sycamore; and far up on a rocky point of the ridge sat his majesty, "monarch of all he surveyed." We left him in peace of his white, scraggling "castle." A bend in the road brought us in sight of an old Californian rancher, where we were directed

to tie up, and go down the trail from the house that led to the rookery, about a mile. We had started out intending to get back for dinner, not having taken any lunch. How the inner man growled before we even came in sight of our haven of joy! We tramped and tramped to the end of the trail and out to the bare top of a hill, lugging camera and tripods (this was before the little detective had come to hand), but no sign of hundreds and hundreds of nests. Would get no egg or views and back for dinner this day. I crawled back to the shade of a live oak on the trail, and sent out my brother collector on a survey. He came back in five minutes, saying he had struck them sure! We started again, but soon came to a line of brush on the canyon side, where, far below, lay the wanted goal. Nothing must do but get there, Eli; so down through bush and brier, with plenty of poison oak put in here and there for kind of a warning notice "No trespass here." After going into several squirrel-holes, and getting the brush out of my hair, still hanging to the camera-box, we dropped ourselves down under the shade of a California maple. Hark! what was that crash out of the tree? On looking up, lo and behold a Great Blue Heron, and not over twenty-five feet from us a nest, and another further out. "By Gum" and there's another, as the old Cornwall man says; but, like the fox and sour grapes, "so near and yet so far." Below could be seen the gleaming silver of a cool stream in the bottom of the canyon. How our burning throats ached for it, but we did not dare go down there for fear of not getting out again. Such is the luck of a collector's hunt on a blind trail, far from home and dinner, 1.30 P.M., and no eggs either.

I had made up my mind I was not going to leave that place if I never got an egg or another dinner for a week, until I had a nest on every plate in my case. That was easier said than done, as the hill had a slope of 45° straight down to the creek bottom. I got some limbs cut out of the way, tripods set, and by this time the Herons began to come back and perch on the edges of their great bulkily built nests of sticks and branches. One now and then could be seen craning his long neck, the better to see what was going on below by those odd-looking coons. I had to hang on to one of my tripod legs to keep from taking a header down the hill. It was now or never; so snap went the trigger, and I had one of the nests to look at in after days, a reminder of the pleasant times spent afield after birds and their homes. These plates proved fine ones on developing.

On another trip made there with my friend Mr. Bryant, we got down to the rookery by the right trail to the canyon bottom. Four exposures were made: one at what I call the old Plum-pudding tree, a tall, bare, white sycamore, with twenty-two nests scattered through it; from the hillside eggs could be seen in the nests right and left, from two to four in each, with some of their downy young.

On a small rifle being shot off all the herons took to wing, flying off down the canyon. I got a fine snap at them on one plate. Another plate shows the herons standing on some of the nests, and others on the great limbs of the live oaks. Several sets of eggs were taken, of two, three, and four, also downy chicks, and what odd-looking birds they were when put together on the ground side of the creek, where we sat to eat our lunch. Pretty soon we had a lot of fun: the largest gray-haired chick was at a set-to with his brothers, fighting with their large black bills like young roosters. The large one soon knocked out all his companions.

The young herons all have long, grayish, hair-like down, quite long on the neck and head; bill and feet black, eyes grayish white. Their notes are coarse and squawk-like. All these nests were from 25 to 100 feet up, mostly in the sycamore trees, a few scattered in the live oaks and California maples. There must have been upwards of 250 nests in this heron rookery, and it has been occupied year after year for no one knows how long.

The ground was well whitewashed under the trees inhabited, and a strong smell of guano greeted the collector wherever he stood. Many small fish-bones could be seen lying about the ground.

A good detective camera taking a plate 4 $\frac{1}{4}$ x 6 $\frac{1}{2}$, cabinet size, I find makes the best views, and allows to cut down in printing where a plate is not entirely perfect. Some prefer a 4 x 5 for birds and nests.

It is wonderful what can be done in the line of taking birds in flight or otherwise. (I believe the first honor in this line of photography is given to Mr. E. Moybridge, a Californian, whom I have had the pleasure to meet; would advise the readers of these notes to see article on his works, *Century Magazine*, July, 1887, page 356. In the article a series of ten cuts are given of Golden Eagle in flight, showing the true position of the wings in motion.) With the quick eye of the lens and the sensitive plate, Gulls, Hawks, and Ducks on the wing, well as Cormorants, Herons, and all small birds on their nests, can be caught in their natural

positions. It gives one a true idea of the bird's motion and characteristics peculiar each to itself. One has a sure thing on identification in the field, collecting nests, leaving no doubts of the species to be settled by the gun.

Some there are who may say, "But you can't get close enough to always do that." Take time, just as you would to hunt or watch the bird in the ease of your wanting to know what it is. I have yet to see the nest or bird in the bush that a true collector's wits, of Nature's facts, could not get within five or ten feet of his object long enough to spring a shot on his sensitive plate.

As shy a little bird as the Hummers are, I have had my face within ten inches of the bird on the nest; the same with many Sparrows, Finches, Warblers, and even the timid Flycatchers. I well remember the time I took a grand negative of the Farallone Cormorants, on one of my never-to-be-forgotten trips. How I set up my camera within five feet of them! Only four or five birds left the nests; they soon came back after circling several times overhead, and finally settling down on the edges of the nests, others covering the eggs at once, even picking the weeds from one another's homes to place on their own, — a habit peculiar to the Cormorants. I found while tending the duties of incubation, in another place of Western Gulls, they would walk around the nest, I suppose to see if it was in trim for "having their picture took," like a country lass.

I use for general work of this character a medium plate, not too quick in its action, for a better success is had in handling the development of it.

Detective cameras can be had now all the way from ten to a hundred dollars or more. I will give a description of mine for the benefit of the O. & O. readers. Cost complete with one double plate-holder, \$37.50 (made to order), and I would not give it for the best hundred dollar outfit in the market. It is made of Spanish cedar, polished, $8\frac{1}{2}$ inches in height, same in depth, $6\frac{1}{2}$ wide, a focus range of $2\frac{1}{2}$ inches (outside of that is always in focus, a distance indicator marked off from 3 to 25 feet; outside of 25 feet is in focus on everything). Two field-finders, one for uprights. The shutter works in the lens, regulated for any desired time by a set of five notches (can be set for time exposure). The sliding cap over the lens when moved for exposure opens the finder at the same time, and on seeing the image on the finder, you know your lens is open ready for the snap of the shutter. Maker of lens, R. D.

Gray, N. Y., Periscope No. 3, diaphragms are a revolving disk set in the lens next to the shutter. Carries two double holders for plates, and only weighs four pounds complete. Has a removable back to take out in case of indoor work. The lens front board lets down on hinges, so if anything gets out of order it can soon be remedied. I have wandered often from my subject, but hope it may have been of interest to the reader, and may be the means of drawing others out to give their experiences in this new field of hunting with something besides a noisy gun.

W. Otto Emerson.

Fruit Glen, Haywards, Cal., Oct., 1889.

Nesting of the Blue-gray Gnat-catcher at Raleigh, N. C.

The Blue-gray Gnat-catcher (*Polioptila caerulea*) is quite a common summer visitor about here, frequenting the woodlands and orchards, but most abundant in the willows and other growth along streams. This year, as usual, the first specimens appeared the last week in March, and by the 5th of April the species was present in summer numbers.

They did not let the grass grow under their feet when they got here, but after laying out their summer plans and looking up the fashionable localities, they went to work in good earnest. The first nest observed was one just started, on April 12th, and by the 20th the bulk of the species were engaged on their nests. A cold spell lasting five or six days from the 13th to the 18th, set back some of them in their operations, but others kept bravely on with their work in spite of the biting winds. Both sexes helped in the building, the female doing most of the work, however.

Green moss, fine grass, fibres, and other fine material, firmly bound together with cobwebs and ornamented with an exterior coat of gray lichen, are the usual materials employed in making the nest. The actions of the bird when binding cobwebs in a suitable fork to form the foundation are most amusing. The bird sticks her head under the fork, and winds and twists the cobwebs about any projections there may be present, until it looks as if she would twist her head off.

The nest is usually placed in the fork of a moderately slender lateral limb of some tree, and there is also a disposition on the part of the birds to choose a fork near the end of a limb, so that when a good sized tree is chosen

as a nesting site the eggs are no easy matter to get. The nests are placed in sweet gum, birch, oak, willow, and pine mostly, and range from seven to fifty feet in height, the highest nests being those in pines and the lowest ones those in the gums.

The birds take about two weeks to build the nest and lay the four or five eggs which constitute a set; but after a pair has been robbed once, they take much less time over the second and later nests. When undisturbed I do not think they raise more than one brood in a season. The labors of incubation are shared by both sexes, though I don't know whether the male bird takes his full share of the work, or whether he only goes on the nest once in a while, to show how good he is.

From one pair of birds we took four sets this year, and as a matter of curiosity I give the history thereof:

April 12, 1889. Birds started building in fork of sweet-gum, eight feet high.

April 18. Birds started on the nest again after doing nothing for nearly a week of cold weather.

May 2. Took set of four eggs from nest. Birds found building next day in another sweet-gum, nine feet high this time.

May 14. Took set of four from second nest. Birds started again next day in a third sweet-gum, and put the nest a little higher (twelve feet.)

May 24. Took set of four from third nest. Birds started building again in a fourth sweet-gum. Nest again twelve feet high.

June 1. Nest had three eggs in. Looked later on and it had only two.

June 3. Took set of three from third nest. Some days after, the birds started on their fifth nest, choosing a pine limb some forty feet high and putting the nest a long way from the trunk, and so we concluded to let the bird hatch.

C. S. Brimley.

Raleigh, N. C.

My Two Pets.

It was a beautiful morning in May when L—— and myself started out with the distinct view of making a new acquaintance. We had carefully located our destination several days previous, and judged that it was time for the harvest. A few minutes' walk brought us to the outskirts of the city. At the forks of the roads, in a small pine tree particularly exposed to the view of all who passed, was a

rustic home. Father and mother had evidently let their pride overcome their usual cautious nature. As we approached the spot a dark object silently stole away and up popped two bright-eyed heads which peered down curiously at us with an expression that seemed to say, Well, what are you two chaps up to?

L——, who was the expert, climbed up in a manner that would have done credit to his undeveloped ancestors, and amid protestations that made the welkin ring from above, and excited cautions to point them the right way from below, dropped them in succession into the outstretched hands of the writer. Placing them in a basket we retraced our steps. A temporary home was made by suspending an old basket from a tree about four feet from the ground. Once domiciled our attention was occupied to their entertainment. During the next four weeks we fed them continuously on cooked meal, sawdust, and everything in the line of insect life we could obtain: "in those days we had little idea of the value of entomological collections"; and our many friends who called would occasionally drop in marbles, jackknives and tops into their eternally opened receptacles. Such appetites! It was simply marvelous. They seemed to lead a charmed life, and each experiment produced but one result—a squawk for more. As the days passed their ambition developed from standing tiptoe in the centre of the basket to balancing on the edge, till one day it culminated in a tumble to the ground. They became very much attached to L—— and myself. They would actually shriek and croak whenever we appeared, and their demands required as much attention as the running of an ornithological magazine. I assure the reader they received it, never in a wild state could they have been such autocrats. Morning, noon and night it was scratch gravel for them. L—— retired in disgust from the field and I helplessly became their slave. As their coats assumed a glossy black the primaries of the wings of one became a yellowish-white, and led to his being nicknamed Spot, while the other we called Jack. In manners, dispositions and accomplishments the one was the reflection of the other.

Our first morning exercise would consist of a visit to the garden. I would lift the leaves of the squash vines and pick off the dark three-cornered squash bugs "to me the most detestable form of insect life," and serve them one at a time in turn. To show any partiality meant a row. They would never visit the vines except in my company, nor help them-

selves to these bugs. When I would retire to the house for breakfast they would repair to the flower garden and amuse themselves by picking the flowers, which they would carry and lay in symmetrical rows on the concrete walk. I have sometimes seen three or four dozen blossoms of the dialetra carefully picked and arranged as if done by some child. They never destroyed the flowers and picked but one blossom at a time. It often led me to wonder if they have a similar taste when in their wild state?

We were at first in fear that the numerous cats would make short work of them, but such fears were soon quelled. Woe to Thomas when he crossed the line. The first appearance of pussy was a signal for an onslaught that would do credit to a Turk. Many a time I watched the demonstration with amusement. Pussy would evidently be taken by surprise and seemed inclined to stand his ground; Jack and Spot would start for him, flapping their wings and cawing loudly, and without the least hesitation would pitch in. If pussy hesitated there would be a rough and tumble with claws and beaks; it would be entirely one-sided, pussy offering no resistance and beating a hasty retreat, leaving bunches of fur torn from his back. Another object for attack was the feet of my barefooted companions; they had the advantage and seemed to realize it. I of course would not allow my pets to be hurt and it was simply, get toes under cover. Let me say just here that they can bite right "smart," when they took hold to pull away generally meant that the tip of the bill would bring the meat with it. They never showed any disposition to peck at hands or face and they never in any way pecked at me.

One day I noticed both engaged in picking up small stones which they would carry and drop into a hole that had been dug for a post. Upon examination I found that there was a toad in the bottom, upon which they were dropping the pebbles. Each time a drop was made they would caw in high glee; it was a clear case of amusement. They were experts at playing catch. I would pick grapes and toss to them and they would seldom fail to catch, jumping for them when thrown too high.

On our wash-house were two boxes occupied by Swallows. When they had no other engagements on hand they would perch on these boxes for hours at a time, standing guard to keep the swallows away. Black was a very irritating color to them. It afforded a great deal of amusement to us to throw a black hat

on the ground and watch the result; both would commence a walk round. Beginning with a twelve-foot circle they would gradually close in, all the time making a noisy demonstration, and at the finish would attack the despised object.

They in many ways showed marked signs of affection, and I never knew them to quarrel (except over squash bugs). If one found any food he would always make it known to the other. They were always together, and would play like kittens. Each knew his name and when I spoke to them would answer.

I had heard that if their tongues were split they would talk. I could find no one who knew about the matter, so concluded to try the experiment myself. I cut the cord on the under part of the tongue so as to allow them a free swing (not splitting). They did not seem to mind the operation but as soon as performed they both marched about with beaks opened and kept shaking their heads. I never succeeded in getting them to articulate a word but certainly there was a change in their tone. At times when a short distance off, they sounded like a lot of children jabbering and laughing, and from that day their "song" attracted the attention of the neighbors.

I never shall forget the first snow-storm they experienced. They had been roosting in the woodshed. As I opened the door both came to the sill, neither would venture out. First one would put out his foot, touch the snow and quickly withdraw it; then the other would try it, and then they would both scold. They kept this up for some time and I began to think that I should have to throw them out myself. Finally one made the break, quickly followed by the other, and then the fun commenced. They evidently did not like the feeling to their feet but were otherwise delighted.

One would lie down and the other turn him over. They would roll, flutter, squawk and chase each other in high glee. When the snow became deep I again resorted to meal for their feed. And now comes the sad ending. When they first began to walk they would go to the gravel path and pick up small round stones. These they would swallow, and after retaining them for awhile would eject them, and I could see these little piles of stones all over the yard. They were evidently used as digesters, and when discarded were held together by refuse from the stomach. When the ground was covered with snow they were unable to obtain the stones. I neglected to look out for this requirement, and one day in the early

spring both sickened and died. It was so sudden and so apparently from an unnatural cause that I was led to make a careful examination. I noticed that there seemed to be a hard bunch in the lower part of the throat, and the knife speedily revealed the secret. They had gone to the ash heap and picked up small cinders; these being rough had clogged up the passage and they were unable to throw them off. It would be impossible to relate the many interesting things that I observed at the time. I never before or since have had my mind so much occupied by what seemed a higher order of life in birds than we usually observe than I did in the brief company with my two pet crows.

XX.

Nesting of the White-throated Sparrow.

As I am not aware that the nesting habits of this species (*Zonotrichia albicollis*) have been previously described in the pages of the *O. & O.*, and as the habitat of this bird itself—at least in the summer season—appears to be rather locally confined, and its manner of nesting seems known to comparatively few, I assume that some of my observations on this matter, during the past season, may be interesting to many readers.

Unlike the Song Sparrow (*Melospiza fasciata*) the range of this species is confined to tracts of low, swampy ground, or the margins of brush-littered woods, where there is an intermingling of low brushwood, creeping vines, tall grasses and fallen timber; but the half burnt swamps are its peculiar home, from the early days of April until the advent of autumn; and here through all the summer-time its clear, loud whistling song is among the most conspicuous of all the bird melody that affects the otherwise unpleasing scenery.

In the manner and position of its nest there is little difference between it and the Song Sparrow, except that the nest is nearly always placed upon the ground, generally sunk into it. The materials of which the nest is composed are also much the same, viz.: stalks of dry weeds, strips of fine, dry bark, dry grass, rootlets, and a small quantity of cattle, or horse hair. The set of eggs is usually four, although sometimes in the early season five are deposited, while later on, sets of three and two may be found undergoing incubation. Its nidification extends from the middle of May to the first week of August, but if not dis-

turbed, it will probably not lay more than twice in the season, while if disturbed it will nidify four or five times.

At first sight the amateur might easily take the eggs of this species for those of the Song Sparrow, although generally they are larger, but this is not always the case; yet to the practised eye of the more advanced oölogist a more certain uniformity of size, roundness of form, and a certain peculiar glossiness in the blue-gray hue of the ground color, constitute a distinguishing characteristic, but it is always safer to see the bird and hear her notes—which she generally makes a liberal use of when her nest is approached—in order to be sure of their identity. Some nests and sets of eggs collected by me in 1889 may be regarded as typical of this species. The first, taken May 15th, was in a new fallow, and sunk into the soft mould, among a cluster of dead stalks of the common thistle. Some coarse materials formed the outer rim: inside was a soft lining of fine dry grass and a little hair. The set in this nest was five eggs. These were of a light blue ground hue, marked over the surface—especially on the larger end—with blotches of deep brown.

Another nest, taken May 27th, was only a few feet from this, and placed in a clump of young mullens. It was also sunk in the mould, and was composed almost wholly of fine, dry grass, but its set of four eggs were remarkably different, being dotted all over the surface with small, irregular spots of a light brown hue. They were also larger in size, and more round in form, but among themselves very much alike. These two sets were, I think, laid by the same bird. Another set of four eggs, taken June 8th only a few rods distant, was also among some young mullens, at the bottom of a small stump, and so exactly similar in material of nest, size and coloration of eggs, that I supposed it belonged also to the same bird.

Yet another nest, just over the fence in another field, was similarly formed, and placed at the roots of a tall mullen and some stalks of wheat, seemed also from its two addled eggs and the broken shells of two others to have belonged to the same bird. This latter nest was not noticed until the first week of July, and I have no doubt that the bird nested again, for the male bird was daily noticed singing his peculiar song on his favorite perch—a tall snag near by—when I happened to be that way, until towards the first of August.

Another nest in the same fallow, noticed

June 11th, was placed in a clump of mullen, on top of a little bank. This contained but three eggs, and as I knew that incubation had begun several days, it was not molested.

On the 27th of May I also collected another set of four eggs on a neighboring farm. This nest was also placed at the root of a mullen, and was in its form and the marking of its eggs so like those of a Song Sparrow that it would have been difficult to identify them if the bird had not been seen.

Several other new nests were located in a swampy burn, but before their sets of eggs were completed they were destroyed by some small animal or bird. Another nest, whose set of four eggs were among the most beautifully mottled that I have seen, was collected by my son from a tuft of grass in a deep tamarac swamp on the 12th of June, he having, to make identity certain, shot the bird.

The last nest of this species that I noticed this season was on the 12th of July. I had flushed the bird nesting, and on that date four days after the first egg had been deposited found that it contained but two eggs which the bird was incubating, and I did not molest them nor disturb her again. This nest was placed at the root of a small black ash, among tall, wild grass, and formed chiefly of fine dry grass, but the eggs were the darkest in color of any that I had yet seen. The middle of May appears to be the earliest time for this species to nest, but some years ago I took a set of three eggs, incubation begun, on the 4th of August.

William L. Kells.

Listowel, Ontario, Canada.

[No one, except a very ignorant person, would mistake the eggs of the White-throated Sparrow for those of the Song Sparrow, as they are so much larger than the latter in addition to the difference in their general appearance. Normal eggs of the Song Sparrow measure about .75 x .55, while those of the White-throated Sparrow (normal specimens) are about .84 x .63.—J. P. N.]

Nesting of the Chestnut-collared Longspur.

While on a recent collecting trip in Lac-qui-Parle County, Minnesota, an excellent opportunity presented itself for the observation of the nesting habits of the Chestnut-collared Longspur (*Calcarius ornatus*). Let me give you what information I gathered while there.

On the 12th of May, 1889, the day I arrived at Madison, the county seat, I observed the birds in every field. They were apparently mated, and seemed greatly excited when I approached their particular section. Each pair had established themselves in a certain portion of ground, and there raised their brood. Although I hunted diligently during that day and the day after, and for a week or more, I could find no nests.

I looked in tall grass, and short grass, and places where there was no grass at all. I tried watching the female bird, but gave that up and was slowly becoming disappointed at my ill luck, when, on May 20th, as I was riding home about noon with a farmer, I saw a female Longspur flying across the prairie with a piece of grass in her bill. Presently she alighted and walked a short distance, and then stopped, and after fussing about a little, she flew away again, but without the piece of grass she had carried there. Guessing what she was doing, I went over to where she had been, and sure enough, there was the beginning of a nest. It was a shallow hole, scooped out in the ground, which was just receiving its lining of grass and reed stems. Both birds soon came around, and flew nervously about, keeping up a plaintive twittering sound.

I told the farmer he need not wait for me, so I walked about for quite a distance to observe their actions.

As soon as the birds had quieted down the male began to soar high up in the air, and when at its greatest height would begin its peculiar little song, and then with wings almost touching behind his back, would come tumbling down, as if overcome with the ecstasy of his own music, never ceasing the strain until he alighted on the ground. While thus singing he would always settle near the nest as he came down.

With this information gained I started home, resolving to revisit the nest at a later date; but I never did this, for some reason.

The next morning (May 21st) I was out early, looking for Longspurs' nests. I first went to a piece of ground where I always had heard a male singing whenever I passed the place; and as I came in sight this time he was still there. After watching him go through his peculiar singing performance several times, I decided about the spot the nest must be located, and started for it on the run, making as much noise as possible, hoping to flush the bird directly from the nest. As I came upon the place, sure enough, out she went from almost under

my feet. Looking down, I saw the cosy nest containing a fine set of five eggs.

The nest was almost exactly like that of a Shore Lark, being sunken flush with the surface of the ground. It was lined with some bleached grasses and weed stems. The rim was quite thick and turned inward, which made the nest look smaller than it really was. It was built in an open place, close to a well-travelled road; and although there was no grass nor weeds to conceal it, it was very difficult to see while a few feet away. I attempted to take out the lining of the nest, but it fell to pieces and I could not lift it.

I went somewhat further on, and soon espied a singing male. This time my running tactics failed, for the bird flushed wild ahead of me; but now knowing where to look for a nest, I found it, after a few minutes' search, close to a large white stone, which was the only one in sight, the birds using it, perhaps, for a landmark. This nest also contained five eggs. The nest was identical with the one first found, and in fact all of those I found, while there, were very similar, both in location and structure, a description for one will suffice for all.

The next day (May 22d) I found two more nests in similar locations, each containing four eggs, and on the 23d I found three more sets of four eggs each, all of which were found on a patch of burnt ground.

On the 29th I found another set of five, but the location of the nest was different from all the others, it being placed in a bunch of grass and well concealed. On the same day I also found two more nests, one containing two and the other three eggs, which were left for complete sets, but on returning on the 29th the set of three had not increased in number, while the nest of two eggs had been burnt over by a recent fire; but what surprised me most was two little downy Longspurs that greeted me with open mouths as I came up. This nest was so deeply imbedded in the ground that the flames probably swept over it and left the eggs uninjured. I do not believe the bird could have protected them at the time.

These were the last nests I found, as I left Madison on the 31st of May.

The eggs are peculiar,—quite unlike any others I have seen, but somewhat resembling those of the Grass Finch in the clouded appearance of the shell-markings, and having the dull white ground color of those of a Lark Finch.

None of the nests contained eggs of the Cowbird. The small birds of that district are very free from the intrusions of this parasite, as I

saw very few of the birds and found none of their eggs in any nest that I came across.

George G. Cantwell.

Lake Mills, Wis.

[Seven of the sets above referred to by Mr. Cantwell, together with another set collected in a different locality, are now before me, and may be thus described:

Set I. May 22, 1886, Huron, Dakota. Collected by E. S. Cheney. Nest, a hollow in the ground, lined with fine grass, placed beside manure on a hillside. Three eggs, incubation begun. Pinkish-white, speckled with burnt umber, and also veined with a few lines of seal brown: .78 x .56; .78 x .54; .78 x .57. (This set is described in *Davie's Nests and Eggs*, 1889, page 296.)

Set II. May 23, 1889, Lac-qui-Parle County, Minn. Collected by Geo. G. Cantwell. Nest composed of bleached grass and weed stems, sunken flush with the surface of the surrounding prairie. Four eggs, incubation begun. Greenish-white, spotted sparingly, but distinctly, with clove brown. There are a few under shell markings of cinereous. The spots are evenly distributed all over the surface: .76 x .55; .76 x .55; .73 x .55; .72 x .54.

Set III. May 23, 1889, Lac-qui-Parle County, Minn. Collected by Geo. G. Cantwell. Nest composed of bleached grass and weed stems, sunken flush with the surface. Four eggs, fresh. Greenish-white, speckled and spotted with Vandyke brown and seal brown, with a few under shell markings of cinereous. These spots are heaviest around the larger ends: .70 x .55; .70 x .55; .67 x .54; .67 x .54.

Set IV. May 23, 1889, Lac-qui-Parle County, Minn. Collected by Geo. G. Cantwell. Nest composed of grass and weed stems, sunken flush with the surface of the surrounding plains. Four eggs, fresh. Light greenish-white, speckled and spotted all over the surface with burnt umber. There are also under shell markings of drab-gray, and a few veinings of seal brown: .77 x .57; .75 x .58; .75 x .58; .74 x .59.

Set V. May 29, 1889, Lac-qui-Parle County, Minn. Collected by Geo. G. Cantwell. Nest composed of grass and weed stems, sunken flush with the surface of the prairie. This nest was found on the 23d of May, with three eggs, and no more were deposited by the 29th. Three eggs, incubation advanced. Greenish-white, spotted and veined with burnt umber. There are also numerous under shell markings of cinereous: .73 x .56; .75 x .57; .72 x .56.

Set VI. May 22, 1889, Lac-qui-Parle County,

Minn. Collected by Geo. G. Cantwell. Nest composed of bleached grass and weed stems, sunken flush with the surface of the surrounding prairie. Four eggs, incubation slight. Earth-drab ground color, clouded with light purplish shell markings, veined and spotted with seal brown: .77 x .55; .73 x .56; .73 x .56; .73 x .57.

Set VII. May 26, 1889, Lac-qui-Parle County, Minn. Collected by Geo. G. Cantwell. Nest composed of grass and weed stems. Placed in a clump of grass on the prairie. Five eggs, fresh. Greenish-white ground color, clouded with drab and speckled and spotted with seal brown: .75 x .58; .72 x .56; .71 x .55; .69 x .56; .73 x .58.

Set VIII. May 22, 1889, Lac-qui-Parle County, Minn. Collected by Geo. G. Cantwell. Nest composed of bleached grass and weed stems, sunken flush with the surface of the surrounding prairie: .71 x .54; .73 x .55; .78 x .57; .73 x .55.

—J. P. N.]

THE
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ESPECIALLY DEVOTED TO THE STUDY OF
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THEIR NESTS AND EGGS,
and to the

INTERESTS OF NATURALISTS.

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Editorial.

The O. & O. is mailed each issue to every paid subscriber. If you fail to receive it, notify us.

With this issue we close Volume XIV. As in the past our columns have been filled with communications from collectors located throughout our land. They have furnished notes which have continued the chain of information that has now been presented through

our columns for fourteen consecutive years, and which has not been an unimportant addition to American Ornithological Literature. That the coming volume will not deteriorate in importance let our friends judge from the past.

The support that the magazine has received from many is a flattering endorsement of an independent publication.

Back volumes of this magazine, beginning with No. IX., can still be furnished. When the O. & O. came under the control of the present publisher an excess over its circulation was printed with the express design of being able to furnish back volumes to new subscribers when desired. There has been a continuous call and the surplus will soon be exhausted. They should be in the library of every naturalist.

Brief Notes.

We have been advised of the taking of seven Snowy Owls to date, November 23, the first being the one reported by Mr. White in last issue. By referring to Vol. 10, O. & O., page 192, we find in that year, 1885, they appeared in October, and seven were reported by November 12, all in this state, showing that the flight was a little earlier. There is nothing to indicate an unusual number.

A Western paper of recent birth announces the suspension of the "Swiss Cross," and prides itself as being the first to make the fact public. We had not missed it, in fact, did not know it was sick. Did it die of old age?

Every taxidermist well knows the difficulty of stuffing a domestic cat and giving to it an expression that will be satisfactory to its owner. Recently, while in a neighboring taxidermist's establishment, we were a little amused by a discovered defect. A large, well-prepared cat was on the counter; while admiring it and congratulating the proprietor of the place upon its appearance, in walked the owner. We stepped aside and with curiosity awaited an opinion. After examining it carefully for several minutes, the lady started back, and with a dismayed look exclaimed, "Why, my cat was *cross-eyed*, and this one is not!" We sympathized with the taxidermist, who no doubt had spent considerable time in order to succeed in getting a stuffed cat that did not look crossed-eyed.

A gentleman called at a taxidermist's place and asked for a squirrel that he had left to be stuffed two years previously. After considerable search one was produced. The gentleman looked at it carefully, and said, "If I remember, the one I left was a younger animal." "But, my good man," said the taxidermist, "you forget that two years have passed; we all grow old." The gentleman took the hint and settled for the squirrel.

A good story was told us a few days since by a sportsman. While out with a party on an old-time hunt, they succeeded in getting a very large fox. While examining it one of the party suggested that they load it, and get up a bet with some outsider. The day's sport being

over, each man emptied the contents of his shot-pouch down its throat and then plugged it with paper. They then drove to a tavern kept by a well-known hunter. They called him out to view Reynard as it lay coiled up in the bottom of the sleigh. The size and weight were discussed till the hotel man was inveigled into betting on the weight. Putting up an X, the fox was taken in and weighed, and of course exceeded all records. The loser was so much taken with the record that he paid the party ten dollars more for it, and had it stuffed, and now with pride points it out as being the heaviest fox ever taken in the county.

Did you ever place a stuffed owl in a tree and see how it works as a decoy? We placed a fine Barred Owl on our fence-post one day, and a Bluejay tore the back off its head before we could shoot it.

We have been asked by a number of our subscribers for a good receipt for tanning skins. Many of the receipts that are given are not found practical upon trying them. We recently applied to a chemist and found that he had done considerable tanning. He handed us a preparation and we find that it works nicely. A fox-skin was prepared suitable for use in four days from the time that it was taken from the animal. It often occurs that a skin is received that is wanted in a hurry and a tanner is not convenient. It is then that the value of such a means for curing is on hand. We can furnish the tanning at \$1.00 per bottle, with full directions. One bottle is sufficient for preparing a dozen fox-skins. The party who discovered it for years used it on sheep-skins, which are considered difficult to handle successfully.

Nothing like making the most of a new discovery. Follow them up, and there may be lots of fun in it at least. The fact was impressed on our minds a while since as we stood in company with a number of gentlemen admiring the antics of a promiscuous collection of caged monkeys. One of the party threw the lighted stub of his cigar into the cage. The first to notice it was a sickly, puny, dudish specimen. He came up, dropped on all fours and smelled of it; it was enough, with a sickly grin he turned sorrowfully away. The next, a fat, sleek, well-built fellow, with dignity came up. Viewing it a minute he made a grab, catching it by the fire end. "Great Gorilla" and "Spirits of Chinpanzee," did ever monkey experience such a sensation! There was no hesitation; with the skill of a first-class ball aerobat he threw it up a succession of times till he caught it by the cool end. Holding it in one paw he rubbed the singed member over his flank, keeping tune with the corner of his eye. When relief was produced he again turned his attention to the smoking trophy. Very carefully he applied the lit end to his mouth; the effect was again electric. No monkey can stand it that way (try it). After a variety show, consisting of sputtering, turning somersaults, etc., he assumed a thoughtful attitude. All at once his countenance seemed to light up. Ah! he had it! Like a flash he reached out and picked up the stub. He grabbed the appendage of an old Ringed-tailed that was perched above him, and applied the fire. Next he tried it on the ear of a moth-eaten old dame and extends it by a side glance to her kid. He next sprang to an upper perch where he passed it along, searing several pair of feet, and ended by grabbing monkey No. 1 and extinguishing the fire by trying to force it down his throat. A second move and he was in the corner serenely viewing the commotion. Such excitement, chattering and frantic efforts to cool off affected localities was never seen by any of our

party. That monkey made the most of his opportunity and had his fun.

AMERICAN ORNITHOLOGICAL UNION.—A meeting was held at the American Museum of Natural History, New York, in November. The following officers were elected: President, J. A. Allen; vice-presidents, Elliott Coues and Robert Ridgway; secretary, John H. Sage; treasurer, William Dutcher; members of the council, William Brewster, Charles B. Cory, Daniel G. Elliott, Henry W. Henshaw, George N. Lawrence, C. Hart Merriam and Leonhard Stejneger. Although not so reported, we have every reason to presume that the gentlemen commemorated the honors conferred by inviting all members present to a collation worthy of the occasion.

Hark! ye friends, the contract's ended,
If we hear from you no more
Let the parting thoughts be friendly,
And 'twill stand a well-made score.

—Brief Notes.

Correspondence.

Editor O. & O.:

I have just received by mail from Bridgewater, Lunenburg Co., Nova Scotia, a very fine Albino Robin. The bird is pure white on the head, back and half the tail, the four feathers on one side of the tail being black, the breast is a faint red, the wings white. The bird is a male and the man who shot it says it had the note of the robin. I once had an Albino Robin taken when about three weeks old. It was fully feathered, but not able to fly far. The bird was alive when brought to me, and was all of a creamy white.

I now have in my collection a Belted Kingfisher which shows curious coloring. The bird is perfect in color except that the blue on all parts of its body has changed to a very light cream color with a pink tinge. The bird is a female; I have had it for years, and have never noticed or heard of an Albino Kingfisher in this province.

T. E. Egan.

Halifax, N.S., Oct. 28, 1888.

Editor O. & O.:

I wish to correct Mr. Chas. F. Morrison in his notes on *Empidonax difficilis* in October O. & O. In my notes on this bird in O. & O., Vol. IX, No. 1, ("Denver") does not appear.

Murphy is two and one-half miles below Hancock in Chaffee Co. My only object in making note of this error is that it might be especially misleading to collectors in Colorado. According to the elevation taken by the railroad surveyors, Hancock is 11,200 feet above sea level, while Denver is only 5197 feet, and the surroundings of the two places are very different.

D. D. Stone.

Oswego, N.Y., Nov. 15, 1889.

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