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BIRDS AND HOW TO ATTRACT THEM ABOUT OUR HOMES.

By J. C. MIDDLETON, LONDON, ONT.

Most of us take a good deal of pride in the surroundings of our dwelling places, and have succeeded in making them real beauty spots. However in most cases with city dwellings we have not the opportunity of carrying out a good many of our cherished wishes, still our surroundings are largely what we make them, individually or collectively. What could be more charming than being surrounded by an abundance of bird life the year round?

Now without trees or shrubs we would have very few birds as they provide protection and shelter from extreme heat and cold, and from the searching eyes of natural enemies such as the cat, dog and birds of prey. They also provide resting and sleeping places as well as meeting places for many of our most favorite birds. Important as all these reasons are, trees, shrubs and plants are indispensable to most bird life for another great reason, that is they provide food either by producing or sustaining it. It is quite true we may have plenty of house sparrows and perhaps birds that feed while on the wing, such as the swallow or martin, without trees, but these are only exceptions which go to prove the general rule. It goes without saying that dense foliage is essential for good protection. This can be best obtained by the use of evergreens, which if planted in clumps or hedges will give ample protection both for summer and winter, their growth is much thicker and heavier than our deciduous trees. A good hedge of spruce trees is a great attraction for birds in the cool nights of early spring, or in the fall, and a thick cover of some sort of evergreen is essential if we are to have the birds stay with us during the winter.

Most close growing shrubs and trees are valuable for nesting places. Of course many birds nest on the ground in clumps of grass or thickets, but these are not likely to build in our gardens unless we have some quiet and unmolested spot.

The different fruits and seeds being produced and ripened at the different times of the summer are either eaten, perhaps when only partly matured, (such as the cherry) or on the other hand hang on long after the leaves have fallen to serve as food in fall and winter.

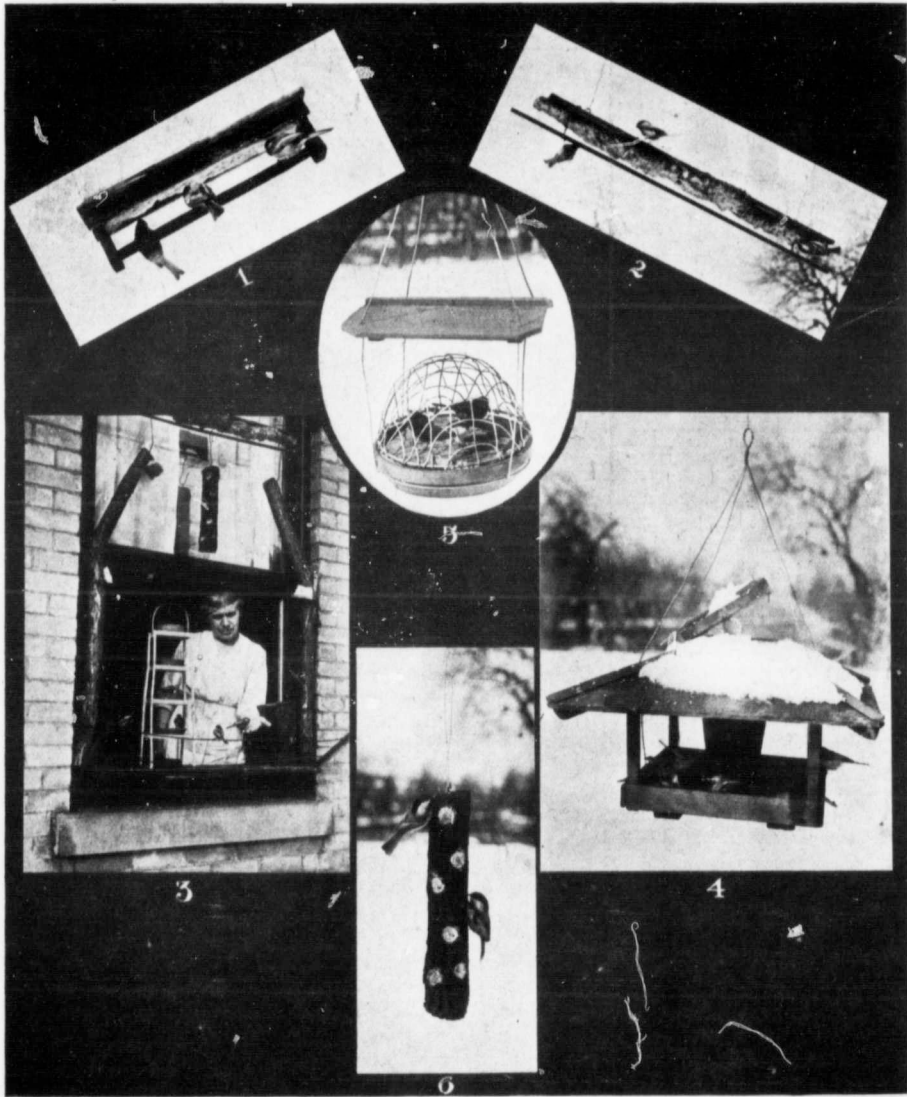
The myriads of leaf insects, to say nothing of the moths and fruit pests, form a large portion of the birds' bill of fare. Then again what about the borers, and other insects which live either in or under the bark?

The sap of trees is also enjoyed by some birds. For instance, the sapsucker will almost always be found at work where the Balm of Gilead poplar trees are plentiful.

What is our deduction from these facts? Is it not a fact the more nearly we can create these conditions in our gardens, the more birdlife we are likely to have, for after all the two great essentials to success in attracting birds are an abundance of food and ample protection.

Now I don't suppose it would be either practical or wise to have all our garden space taken up with plantings suitable only for bird life; most of us are far too fond of flowers to allow this, but on the other hand how often are gardens planned entirely without a thought for the welfare of our birds. With our system of laying out our cities in blocks what would be easier than to have our back garden separated by hedges. I am quite sure you will agree with me that the garden would look very much more artistic and natural than they are with our present system of board fences. There are many different kinds of trees, plants and vines which are quite adaptable for hedges. If this system could be established, just think what it would mean for the birds, and not only for the birds for I am inclined to think that living between board fences has a very detrimental effect on all our natures, and that if we could but trace where that hard or unsympathetic spot in our natures originated we would find, perhaps back a generation or two, that the rude obstruction of a high board fence around our gardens has had a great deal to do with it.

It would be difficult to name all the best trees and shrubs. Mr. Baynes in "Wild Bird Guests" gives a very complete and quite an extensive list of these with their relative fruiting seasons. I quite agree with Mr. W. E. Saunders that our own native trees are likely to prove more attractive than imported ones. We naturally take to our favorite



1. Upside down feeding box; 2. Upside down feeding slab; 3. Bird Curate placed on window sill;
4. Seed hopper; 5. Mrs. Berry's wired dish; 6. Feeding log.

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dishes, so with the birds, they are far more likely to be attracted by a clump of our red native cedars than by trees which they have never seen before. Of course this does not mean to say that we should not plant trees such as the Mulberry, whose fruit is specially attractive, but as a rule our native berry bushes, vines and trees are the best to plant.

Perhaps the most interesting of our bird guests during the nesting season are those which occupy our bird houses. These are so well known that I need not enumerate them. It might be well to dwell for a little on the most suitable styles and locations of some of the preference for what he, or perhaps I had better say she, considers a properly made house. How do we know whether a bird likes a certain style of house or not? This is only found out by observation and experiment. Perhaps Baron Von Berlepsch has achieved more along this line than any other student, having devoted a tremendous amount of time and practically the whole of his large estate to these studies, and bird houses constructed after his ideas have proved most successful. I mention this only to show that through experimenting it is quite possible to find out what kind of house are preferred by the different birds.

A standard Flicker house would be made from a log say, twenty-four inches long and about eight or nine inches in diameter. The entrance hole, two and a half inches in diameter, should be placed quite near the top. To hollow out the log it is best to cut it in half lengthwise and then with a gouge or chisel shape out the cavity into a pear shaped hollow extending sixteen inches below the entrance hole making half the cavity in each piece of the log and the big end towards the bottom. Place the pieces together again and fasten tightly with a piece of soft wire at either ends of the log; then cut the top of the log sloping, with the back about one inch higher than the front; then nail a piece of board to this having it extend fully three inches beyond the log on both sides and front thus forming a shelter to the entrance hole which is quite important.

Those who are interested in finding out about any special house will find complete directions for all houses in N. M. Ladd's "How to Make Friends with the Birds."

It is a good idea to place a mixture of sand and sawdust in all Woodpeckers' houses as they do not carry in nesting material. Fill the house about one third full, they will soon remove any surplus.

Don't make the mistake of making two compartments in the one house, as houses of this sort will seldom be occupied, and if occupied only one compartment will be used. Purple Martin houses are an exception to this rule. With these houses the more rooms or apartments, each with a separate en-

trance, the better your house.

The placing of bird houses is very important. Care should be taken in selecting suitable locations which should be in open places as far as possible. When hanging the house see that the entrance faces the sheltered aspect, and that it is shaded from wet and storm as much as possible.

All houses should be cleaned and repaired as early as possible each season.

Don't make the mistake of placing a Flicker and Wren house on the same tree as if these should both be lucky in attracting occupants the Wren will take the first opportunity of visiting the Flicker's nest in the absence of the owner and puncturing the eggs. This happened in my garden last season, not only in the Flicker's nest but also with a Robin's nest which was built in the same tree.

Hang out wadding, wool, bits of string, and any other nesting material. Do this early as it is often the means of attracting a pair of birds to nest in your garden.

A bird bath is a splendid attraction. This should be placed in the open thus affording the birds a clear view of any approaching enemies, such as the skulking cat. A bath with a graded bottom is preferable. This should start at half inch and slope gently to not deeper than two inches. A fine misty spray is a splendid addition, also have perching accommodation nearby. A dust bath located in a sunny situation is much enjoyed by birds. This can be easily made by filling a flat tray or box say two or three inches deep with any sort of fine dust, preferably fine sand, with a small portion of slacked lime thoroughly mixed. A bath which will be much frequented especially by Robins and Sparrows can easily be made by securing a large plant saucer and placing it in a sunny location on a box or stool to raise it one or two feet from the ground, the only difficulty with this is that you will probably find that you will have to fill it several times during the day, as an enthusiastic Robin will splash considerable of the water over the edge and when this is repeated several times the bath soon becomes empty.

Besides serving as baths these basins of water are a great blessing in hot weather, as drinking pools, and if kept regularly filled will be visited by hundreds of birds during one day.

There is one golden rule to be observed if we are to make the birds feel perfectly at home in our gardens, that is that no cat or dog be allowed to roam about the premises. The proprietor must see that this is obeyed. Our movements have considerable effect on wild life. If we are gentle and even in our ways of going about the garden, and are not always appearing to be prying after the birds we will find that they will soon learn to treat us as friends. There is no better illustration of this than

with the Humming Bird. We all know how alert and absolutely instantaneous these birds are in their movements and yet, if approached in a gentle even way it is quite possible to gain their complete confidence. I have used an artificial flower made of bright paper, with a small bottle as a centre, filling the bottle with a mixture of honey and water, and by first letting them get acquainted with the special quality of the nectar of this rare flower have afterwards been able to have them come to my hand and sip from the bottle without any decoration. My experiments have been mostly carried on in the fall, and I am inclined to think that it would be a far more difficult proposition to tame these birds during the nesting season. This would apply to almost all birds as nature has made them specially timid and watchful during the time they are rearing their young.

Early in September it is well to hang out some feeding devices so as to attract any birds that might be persuaded to stay for the winter, and as with nesting materials it is a good plan to have them out early, however, just here I would like to say that it is far better not to start feeding the birds if we are not determined to do it regularly throughout the winter.

The feeding of birds in the winter is perhaps one of the most interesting sides of bird study. As already stated we must have some thick clumps or hedges of evergreen trees for protection if we are to be successful in keeping the birds about our gardens during the winter, but with this and careful regular feeding it is wonderful what can be done along this line. A feeding station arranged at a suitable window is certainly a source of great enjoyment during the long winter months. I would like to explain some of the feeding devices which I have found successful, also some methods of taming the birds and preparing their food.

Having selected our favorite window our aim will now be to entice as many birds as possible to this spot. If we are fortunate enough to have one or more trees within ten or twenty feet of the window we will find this a great aid. A brush pile say about ten feet from the window is necessary, as birds do not feel comfortable without a certain amount of cover. The larger this is the better. Another very good thing is to place artificially a good thick evergreen tree which will serve as a wind break and also make the birds feel more at home. There should be pieces of fat hung or fastened to trees for some distance around. Always have the best supply at your feeding station. It will not be long before you are rewarded with the arrival of a Downy Woodpecker, a Nuthatch, or a Chickadee. Once the birds have found your station all outlying feeding places should be abandoned. If you

are ambitious, you will frame up your window with rough branches and make an artificial window sill of a rough board, say about twelve inches wide, your reason for doing this is to have a place for the birds to feed should you be successful in getting them tame enough to come to the window. At first the birds will be quite shy, but if you are careful not to frighten them at any time they will soon become comparatively tame.

A splendid device for taming some of the more timid birds is a wire strung from the top of your window frame to the nearest tree, the outer end should be a foot or two higher than the end at the window so as to give the wire a slight slope down to the window. This will give anything that is hung on the wire a tendency to shift towards the window instead of further away as would otherwise be the case. The wire must be strung quite tightly so as not to sag when it is carrying its load. Now the idea is to hang feeding devices on this wire, first at the farther end and when the birds have become used to going to them, gradually shift closer to the window. In this way it is possible to get many quite shy birds to feed from your window sill. We have succeeded in getting the Cardinals to feed from our window sill in this way.

At first it may be found a good idea to sprinkle coarse grains such as oats, corn and perhaps some finer seeds, say millet, hemp, etc., in a specially prepared spot in your brush pile, but this will probably attract more house sparrows than anything else, and if you do not resort to some means of outwitting them they will soon monopolize your station, eating everything you exhibit excepting the whole corn.

Generally speaking you can divide the birds that will feed at your station into two classes, the seed eaters and the suet or fat eaters. This division is not absolute, but the Sparrows, Juncoes, Finches, and Cardinals, are preferably seed eaters. The Chickadees, Nuthatches, and Woodpeckers prefer suet or fat, while the Bluejay will do ample justice to either if it gets the chance.

The Chickadees are probably the most interesting and most easily tamed of our guests and our station would indeed be quiet without them.

The nature of a bird is to fly away as soon as it secures a morsel that is good to eat; now recognizing this fact and remembering that our object is to tame and see as much of the birds as possible, we should guard against this. How? Well, when putting out suet don't put out suet, but buy beef fat. Of course I do not need to explain this to the ladies but to the men I would say that suet crumbles and breaks up into pieces just suitable for the birds to fly away with, while beef fat holds together and requires that each mouthful be pecked off. Result—

bird has to stay on the job in order to get a meal. Also in putting out nuts for the Chickadees and Nuthatches see that these are reduced to a fine powder.

You will have special spots for your fat. The best way to fix this is to take a nail, say a three inch nail, cut the head off thus making a point at both ends, drive one end into the tree or the place where the fat is to be put, leaving the longer portion sticking out and sloping upward. The fat can easily be shoved on to this spike which will remain permanently in position.

To tame birds it is necessary to proceed by slow degrees. The birds must first become familiar with the general surroundings, and then they can be gradually brought to the window by getting them acquainted with a special feeding dish, and placing this a little nearer the window each day. After they have become accustomed to the window sill they can be tamed to feed from the hand by proceeding in the same slow, progressive way. If we are to keep the birds continually about we must have some feeding devices which will keep a supply of food always accessible.

A seed or grain hopper surrounded by a covered tray is a device which should be at every feeding station.

Mr. W. Saunders' upside-down feeding slab is contrived to protect the food from snow and rain. I have made one by fastening cork bark to a piece of board, this bark being very rough is especially adaptable for the purpose.

The fat is slightly warm and is then pressed into all the holes and crevices of the bark. This slab is much used by Chickadees, Nuthatches and Woodpeckers, and is indispensable in rough weather.

An exceedingly useful addition to our outfit is a variant of Mr. Saunders' upside-down feeding slab; this is made by adding sides about one inch deep to

the plain board. This when filled with melted fat, and nuts, if desired, provides a large bulk of food.

The wired dish is a new idea which has been tested only this winter. It is the invention of Mrs. J. S. Berry, and her experience, which tallies with my own, is that the Chickadees enter it with perfect fearlessness.

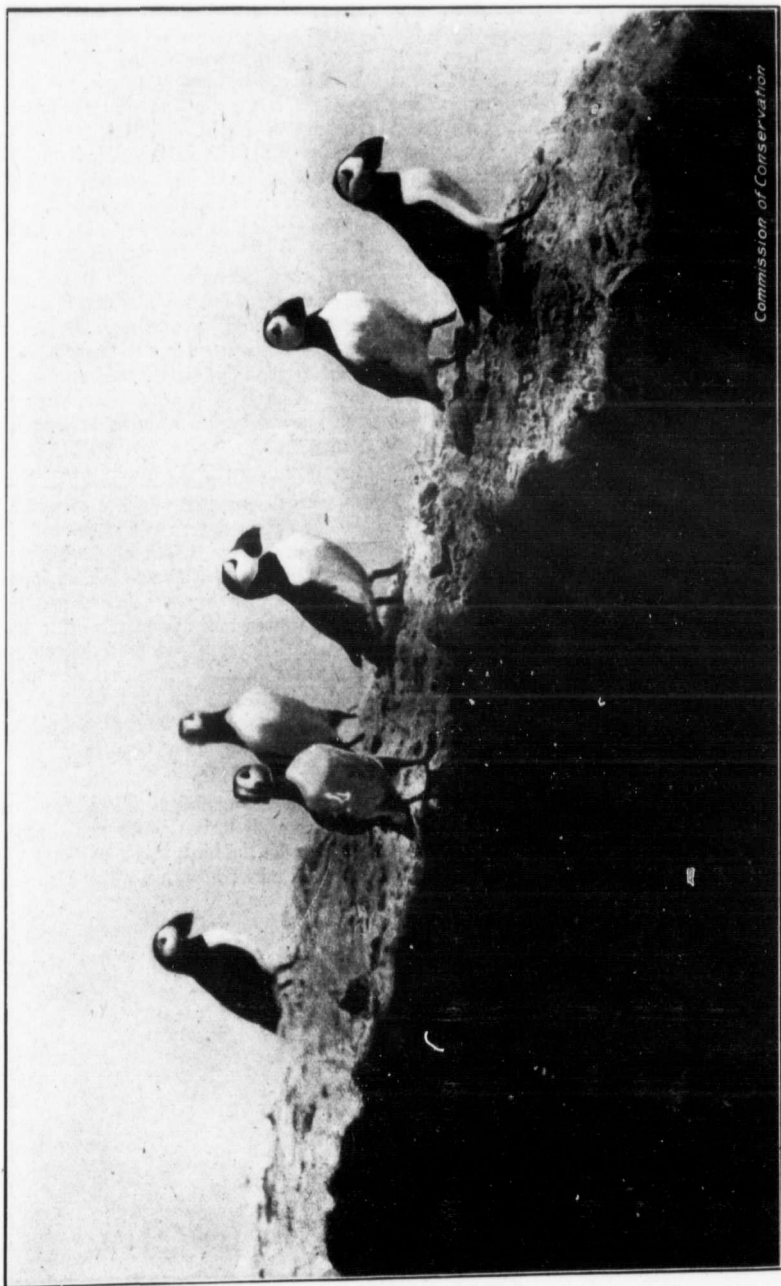
The chief point in this dish is that the meshes formed by the crossing wires will admit a Chickadee but are too small to admit a Sparrow.

The bird curate is the most satisfactory of all our feeding appliances, for the reason that it affords such ample accommodation. It is no uncommon thing to have twelve to fifteen birds feeding at once on the different sections. To secure this it is of course necessary to use finely powdered food, which requires that the bird stay on the spot in order to get a meal. This accustoms them to our person and our movements and has a great influence in taming them.

The feeding log is another of Mr. Saunders' inventions, the essential principle of which is that it shall hang by string or wire so that it oscillates with the breeze or the motion of the birds. Sparrows have a decided objection to feeding from a moving object, and until they cure themselves of this idiosyncrasy we can take advantage of it to avoid having them steal the expensive food that we provide for our native friends. There remains the additional advantage that we can use these sparrow-proof devices further down in the garden, until such time as the Sparrows decide to assist in the destruction of the food thus provided.

Have a feeding station. The birds will repay your kindness with their friendly confidence. Making friends with the birds brings us closer to the great world of nature about us, which is so full of wonderful blessings.





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PUFFINS ON LEDGE OF BONAVENTURE ISLAND (Not Razor-billed Auks).
Photo by Geological Survey—Courtesy of Commission of Conservation, Canada.

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NOTES ON THE SUMMER BIRDS OF THE GASPE PENINSULA.

BY CHARLES W. TOWNSEND, M.D., BOSTON.

(Continued from Vol. XXXIV, page 80.)

The adults on alighting near their half grown young empty their stomach contents on the ground and the young eagerly swallow it. The young may often be seen practicing short flights on the top of the Rock, but when they once launch out from their nesting place they roost on the broken rock and beaches at the foot of the cliffs.

9. *Larus philadelphia*. Bonaparte's Gull.

On August 14th I saw two adults and four immature birds of this species in the Gaspé Basin, evidently migrants.

10. *Sterna hirundo*. Common Tern.

The only birds of this species I saw anywhere along the coast of the Peninsula were about a dozen at Cross Point on July 5th. Mr. Taverner does not note them.

11. *Hydrochelidon nigra surinamensis*. Black Tern.

One seen August 27th in the lower part of the York River near Gaspé.

12. *Oceanodroma leucorhoa*. Leach's Petrel.

Breeding commonly in the clefts and holes in the top of the Gannet cliffs at Bonaventure Island.

13. *Sula bassana*. Gannet.

As already stated about 8,000 Gannets breed in the cliffs on the eastern side of Bonaventure Island. The great majority of the birds seen were in full adult plumage; about one in three or four hundred had black in the base of the wing, in the tail and scattered over the back. These, I suppose, are birds two years old.

Early in July nearly all the eggs had hatched, but I watched an adult on July 18th which was brooding an egg in the nest. When the bird raised itself I saw that one webbed foot nearly covered the egg. This singular habit has been noted in literature.

From time to time adults could be seen bringing rockweed in their bills and patching up their nests. The nests like the ledges were painted white with the droppings of the birds. The white downy young with black faces grew rapidly between the time of my first visit on July 10th and my last on August 3rd when they were nearly half as large as their parents.

The curious courtship ritual I have described at length in my paper on Courtship in Birds⁵. This always takes place when a bird arrives at the nest to relieve its mate. It is evident that the sexes al-

ternate in feeding and brooding the young. The new arrival at the nest, after its mate has left, waddles around so that the young is in front of her breast. The young at once raises its black head and shows by its vibrating throat that it is calling for food. The parent often appears indifferent, preens her own feathers and the down of her offspring, gapes sleepily and darts her head angrily at a neighbor. The young become more insistent and tries to wedge open the bill of its mother. She at last gives a gulp, curves her head down, opens wide her bill and appears to swallow the head and neck of her hopeful. The process is soon repeated; the young always seem ready to disappear into the cavern of its parent's mouth.

Whether the great volume of noise that goes out from this ledge is the courtship song or not I can not say, but it is doubtless augmented by the calling of the young for food. It suggests thousands of rattling looms in a great factory, a rough vibrating pulsing sound, and may be written down *car-ra, car-ra, car-ra*.

Taking advantage of the strong sea breezes and of the currents deflected upwards by the cliffs, the Gannet is able to soar on rigidly outstretched wings for a long time without flapping. One, which I watched passing within a few yards of me, circled ten times to within a few feet of a ledge crowded with its kind, and each time he dropped his feet as if about to alight, but each time drew them up again and sailed by. Except for a momentary flutter just before each attempt to alight, his wings were held rigidly outstretched. The circle was one of three or four hundred yards in diameter. On each of the last three times he executed a smaller circle in addition, thus completing a figure of eight. On the eleventh attempt he dropped suddenly on the ledge close to his mate on her nest. The bill-shaking and bowing and caressing that went on was in the most spontaneous and eager fashion. They appeared over-joyed to meet again.

Before flying from the ledge the Gannet generally poises motionless for several moments with its eyes and bill pointed upwards, perhaps in order to watch for an opportunity to fly without colliding with another bird in the air. It then leaps clear of its companions and of the ledge, and with tail turned down as a brake, it swiftly descends until it gathers impetus enough to rise.

At Grand Grève in the early part of August I frequently saw Gannets singly or in groups of two

(5) Auk.

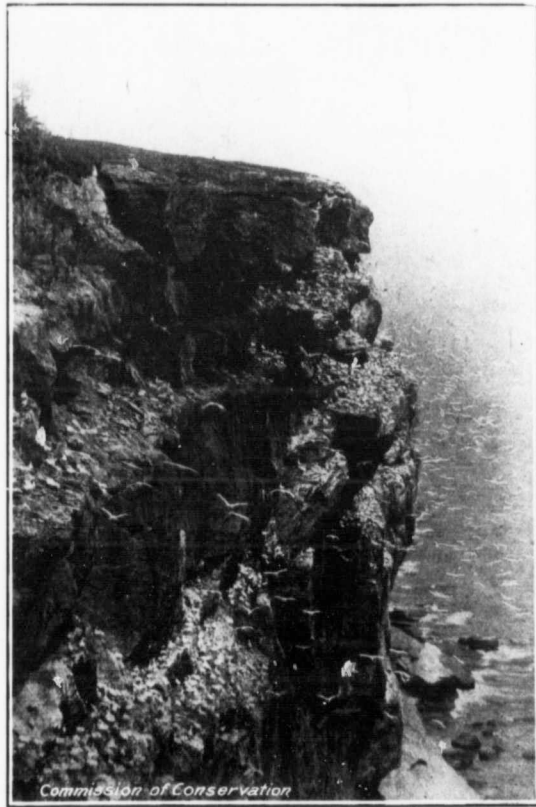
and three fly back and forth in Gaspé Bay. During the latter part of the month they were flying south. I did not see any fly over the land.

14. *Phalacrocorax auritus auritus*. Double-crested Cormorant.

A very abundant bird all along the coast. It breeds to the number of about 2,000 on top of Percé Rock and in large numbers on the great

abundant species and grows luxuriantly.

The feeding of the partly-grown and especially of the fully-grown young Cormorant was always an amusing spectacle. An adult alighting on the rock is at once besieged by one or more young who wave their wings frantically and raise their heads, beseeching the parent for food. Often times the parent is reluctant to accede to the request and runs away,



GENERAL VIEW OF GANNET LEDGES, BONAVENTURE ISLAND, 1914.

Photo by Geological Survey of Canada—Courtesy of Commission of Conservation, Canada.

sea cliffs at Bon Ami and at the foot of Mt. St. Albans.

At Percé Rock there appeared to be seventeen distinct clusters of nests where everything including the nests was painted white with droppings and the ground was devoid of vegetation. Where the Herring Gulls nest the surface is largely covered with vegetation. Yarrow, *Achillea borealis*, appears to be the most

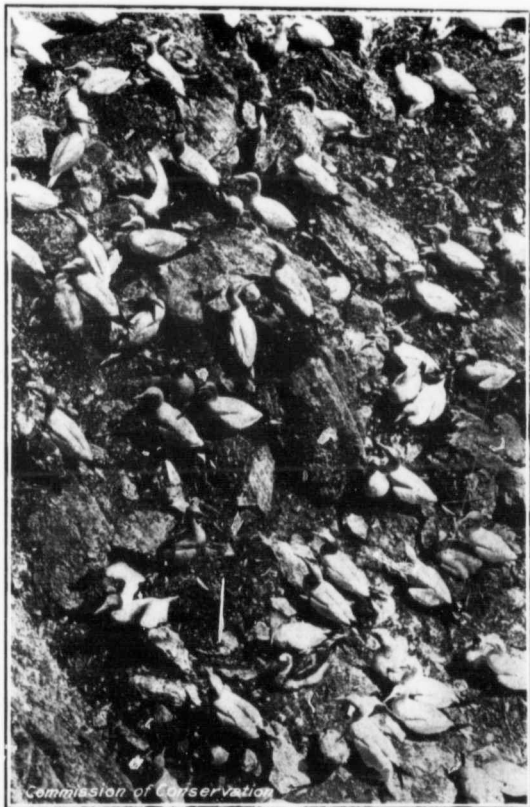
closely pursued by its offspring, dodging in and out among the other Cormorants and Gulls. Finally the parent gives in, opens its capacious maw into which the young disappears as far as its head and neck are concerned. The parent gradually lowers its head as the young pushes in, and finally bring it nearly to the ground. The young, meanwhile, flaps its wings violently, and the picture is of a large bird trying hard to swallow another bird of the same

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size who struggles violently in protest. It frequently happens that, after repeated requests for food, the parent, unable to rid itself of the tormenting young, takes refuge in flight.

The young when fully grown may often be seen practicing flight by ascending a few feet into the air and coming back to the rock. The earliest descent by the young to the water took place the last of July.

that they stand out as light patches on the gray rock, while the birds themselves look like black bottles. During my stay at Grand Grève during the month of August an almost continuous stream of these birds was passing and repassing over the little settlement, the birds were going to their feeding grounds in the Gaspé Basin and York and Dartmouth Rivers and returning to their nests. They passed singly and in companies of two or three up



CLOSE-UP VIEW OF GANNETS ON LEDGES OF
BONAVENTURE ISLAND, 1914.

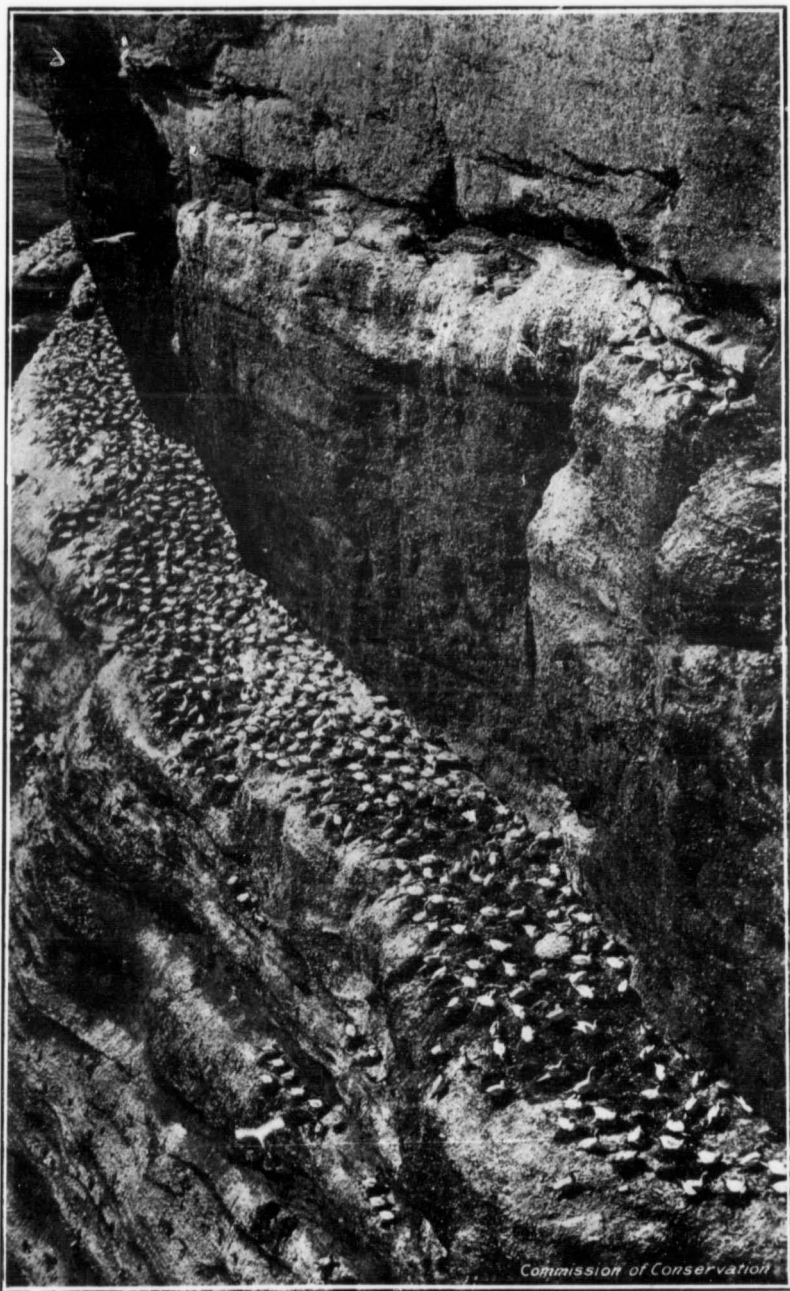
Photo by Geological Survey—Courtesy of Commission
of Conservation, Canada.

The great cliffs, which rise from the water to a height of six or seven hundred feet and extend along the shore for four or five miles near Mt. St. Albans and Cape Bon Ami on the north side of the Forillon back of Grande Grève are nearly perpendicular and possess but few shelves for foothold. On these are built the nests of this species and they are so plastered with the white guano of the bird

to thirty or forty. In warm weather most of the birds had their mouths open, but in cool weather they were shut. I looked carefully for *carbo* but all were *auritus*.

During August groups of a hundred or more fully grown young birds were to be seen on the little pocket beaches at the foot of the Bon Ami cliffs.

The fishermen dislike this bird as they say it



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GREAT GANNET LEDGE, BONAVENTURE ISLAND, GASPE CO., QUE.
Photo by Geological Survey—Courtesy of Commission of Conservation, Canada.

takes herrings on which they depend for bait, from their nets. I saw no shooting, but on the York River there were steel traps on posts and a few birds had suffered a lingering death.

Mr. Taverner found two nesting colonies of this species in Gaspé Bay, one on Gull cliffs on the south side, the other on the north side at Three Runs. Here the nests, about thirty in number, were built in birch trees growing in crevices in the cliffs.

15. *Mergus serrator*. Red-breasted Merganser.
A flock of 20, seen at the mouth of the York River on August 27th.
16. *Anas rubripes tristis*. Black Duck.
A number seen in the Gaspé Basin and the mouth of the York River the latter part of August. Mr. Taverner found them there with young.
17. *Spatula clypeata*. Shoveller.
A bird probably of this species from the description given to Mr. Taverner, was shot at Cape Cove in June, 1915.
18. *Aix sponsa*. Wood Duck.
Mr. Taverner found a mounted specimen at Gaspé taken in the vicinity.
19. *Clangula clangula americana*. Golden-eye Duck.
Thirteen young with their mother were found on the upper Gaspé Basin by Mr. Taverner on July 29, 1914.
20. *Harelda hyemalis*. Old Squaw.
Small flocks were seen near Bonaventure Island in 1915 by Mr. Taverner. One was taken July 22nd.
21. *Histrionicus histrionicus*. Harlequin Duck.
In June and July, 1915, on three occasions bunches of three to seven were seen near Bonaventure Island by Mr. Taverner. Three were taken, all with undeveloped genitalia.
22. *Oidemia americana*. Scoter.
23. *Oidemia deglandi*. White-winged Scoter.
24. *Oidemia perspicillata*. Surf Scoter.
A few of each of these species, evidently migrants, were seen during the latter part of August.
25. *Botarus lentiginosus*. Bittern.
I saw two on the York River on August 27th.
26. *Ardea herodias herodias*. Great-blue Heron.
From the train on July 7th I saw numerous birds of this species in the tidal flats near Point au Garde. At Douglstown on August 21st I counted twenty-four behind the barachois. On the York River on August 27th there were eight.
27. *Nycticorax nycticorax naevius*. Black-crowned Night Heron.
Mr. Taverner and I each saw a single bird at Percé. He found it common at Gaspé.
28. *Gallinula galeata*. Florida Gallinule.
Mr. Taverner saw a mounted bird at Gaspé taken in the vicinity.
29. *Lobipes lobatus*. Northern Phalarope.
Mr. Brewster saw this species near Percé in July, 1881.
30. *Philohela minor*. Woodcock.
Mr. Brewster reported one near Gaspé in 1881, and Mr. Taverner heard of another shot there.
31. *Pisobia minutilla*. Least Sandpiper.
Common migrant.
32. *Ereunetes pusillus*. Semipalmated Sandpiper.
Only a very few seen.
33. *Calidris leucophaea*.
One was seen on August 21st at Douglstown. There are very few suitable grounds for shore birds on the Gaspé Coast.
34. *Totanus melanoleucus*. Greater-yellow legs.
A number seen back of the barachois at Douglstown and on the flats about the York River.
35. *Actitis macularius*. Spotted Sandpiper.
Common all along the shore. At Bonaventure Island a pair, evidently having eggs or young near our camp, flew about nervously and alighted from time to time in the tops of low spruce trees.
36. *Numenius hudsonicus*. Hudsonian Curlew.
A few migrants seen.
37. *Squatarola squatarola*. Black-bellied Plover.
On August 21st I saw two flocks of a dozen each feeding back of the barachois at Douglstown in the brackish marshes.
38. *Aegialitis semipalmata*. Semipalmated Plover.
A few migrants seen.
39. *Arenaria interpres morinella*. Ruddy Turnstone.
A few migrants recorded by Mr. Taverner.
40. *Bonasa umbellus togata*. Canada Ruffed Grouse.
A few with young seen near Percé.
41. *Circus hudsonius*. Marsh Hawk.
One seen at Bonaventure Island and several on the Forillon.
42. *Accipiter velox*. Sharp-shinned Hawk.
A few seen near Grande Grève.
43. *Buteo borealis borealis*. Red-tailed Hawk.
During the latter part of August there was a small southward migration of these hawks.

44. *Buteo platypterus*. Broad-winged Hawk.
I clearly identified one of these at Grande Grève on August 24th, and saw the same one or another there the following day.
45. *Archibuteo lagopus sancti-johannis*. Rough-legged Hawk.
One seen at Grande Grève on August 19.
46. *Haliaeetus leucocephalus alascanus*. Northern Bald Eagle.
Four of these birds in immature plumage were flying about a rocky crag in the woods of Cross Point on July 7th.
47. *Falco peregrinus anatum*. Duck Hawk.
A pair of these birds evidently nested near the Pic d'Aurore at Percé.
48. *Falco columbarius columbarius*. Pigeon Hawk.
One seen at Cannes des Roches,—one near Percé and two or three near Grande Grève.
49. *Falco sparverius*. Sparrow Hawk.
One seen from the train near Nouvelle on August 28.
50. *Pandion haliaetus carolinensis*. Osprey.
A few all along the coast. Between Grande Grève and Gaspé I counted six, and six in a day's trip on the York River.
51. *Ceryle alcyon*. Belted Kingfisher.
A few seen along the coast.
52. *Dryobates pubescens* sub. sp. Downy Woodpecker.
A few seen. Mr. Taverner secured a single specimen at Gaspé. Its measurements are,—wing 96; tail 62; culmen 16; tarsus 15.
53. *Sphyrapicus varius varius*. Yellow-bellied Sapsucker.
One seen at Cross Point and their markings on trees seen elsewhere.
54. *Colaptes auratus luteus*. Northern Flicker.
Not uncommon at all stations.
55. *Chordeiles virginianus virginianus*. Nighthawk.
One seen at Cross Point by me and a few at Gaspé by Mr. Taverner.
56. *Chaetura pelagica*. Chimney Swift.
One seen at Cascapedia and Mr. Taverner reported a pair at Percé in 1915.
57. *Archilochus colubris*. Ruby-throated Hummingbird.
Mr. Taverner saw one at Percé in 1915. I saw one at Corner of the Beach and another at Grande Grève.
58. *Tyrannus tyrannus*. Kingbird.
One was noted by Mr. Taverner at Percé on June 10, 1915.
59. *Empidonax flaviventris*. Yellow-bellied Flycatcher.
Not uncommon.
60. *Empidonax traillii alnorum*. Alder Flycatcher.
A few seen and heard in song at Percé.
61. *Cyanocitta cristata cristata*. Blue Jay.
One was noted at Percé by Mr. Taverner on July 4th, 1914 and July 28, 1915, and one was seen by Judge C. F. Jenny in 1911 at Percé.
62. *Persisoreus canadensis canadensis*. Canada Jay.
One seen at Bonaventure Island on July 9th, 1914 by Mr. Taverner.
63. *Corvus corax principalis*. Northern Raven.
At least one pair at Percé and another at Grande Grève. A family were always to be seen about the cliffs at the Grande Coupe at Percé and the birds flew back and forth to the cliffs of the Murailles and Pic d'Aurore. Here they were continually set upon by Herring Gulls. The cause of the animosity on the part of the latter bird was evident, for Mr. Taverner records that a Raven was seen on the cliffs of Grande Coupe in 1915 feeding its offspring with a young Herring Gull. The flight of the Ravens about Pic d'Aurore was extremely graceful. In the strong sea breeze they often rose from near the sea to the summit of the peak, 700 ft. without apparent movement of the wings.
64. *Corvus brachyrhynchos brachyrhynchos*. Crow.
Common everywhere and as tame and easily approached as I have found them at Cape Breton. At Percé I saw two Crows feeding in a field of young barley within thirty yards of a realistic scare-crow. They were often seen on fence posts and out-buildings and they often fed on the fish heads, and entrails spread on the land as fertilizer. At Barachois on July 26th I saw about a hundred crows on the beach near the fish-splitting tables and alighting on the fishing boats. Here they took the part of the Herring Gulls at Percé and elsewhere.
65. *Molothrus ater ater*. Cowbird.
One in immature plumage was seen at King George Cove near Grande Grève on August 25th.
66. *Sturnella magna magna*. Meadowlark.
One was reported by Mr. Taverner as seen at Percé about June 10, 1915.
67. *Quiscalus quiscula aeneus*. Bronzed Grackle.
I am inclined to think this is a recent arrival in the Gaspé Peninsula. I was told both at Percé and Grande Grève that these birds had been seen in the last few years only. In 1914, Mr. Taverner saw a few at Gaspé but none at Percé. In 1915 he saw a few evidently nest-

- ing just to the south of Percé. In 1919 I found a dozen or more spending the summer in Percé also at Grande Grève, and I saw a flock of 50 or 60 near the marshes of the York River. I was told that they had become a great pest at Grande Grève as a flock would descend on a newly planted grain field and root up the grain.
68. *Pinicola enucleator leucura*. Pine Grosbeak. On July 16, 1915, Mr. Taverner gives a doubtful record of this bird. I saw single birds several times at Percé and Grande Grève.
69. *Carpodacus purpureus purpureus*. Purple Finch. Common, breeding.
70. *Loxia curvirostra minor*. Crossbill. A flock of a dozen seen near Percé on July 30.
71. *Loxia leucoptera*. White-winged Crossbill. On June 26th, 1914, Mr. Taverner saw a large flock of these birds near Percé and secured one. Later a flock of 100 to 150 were continually moving about. I saw only one, an adult, at Percé on July 9th.
72. *Astragalinus tristis tristis*. Goldfinch. Abundant everywhere. If the species depends here on thistle-down for nest construction it must needs wait until the end of August.
73. *Spinus pinus*. Pine Siskin. The most abundant passerine bird. Seen everywhere in flocks during July and August. Mr. Taverner found a nest and eggs on July 21st, 1915.
74. *Passerculus sandwichensis savanna*. Savannah Sparrow. Very common breeder in open fields everywhere.
75. *Zonotrichia leucophrys leucophrys*. White-crowned Sparrow. One was seen by Mr. Taverner at Percé on June 21st, 1914, evidently a late migrant towards the north. This is the only record.
76. *Zonotrichia albicollis*. White-throated Sparrow. Abundant breeder everywhere.
77. *Spizella passerina passerina*. Chipping Sparrow. Common at both Percé and Grande Grève. Feeding young at latter place on August 7th.
78. *Junco hyemalis hyemalis*. Slate-coloured Junco. Very common breeder.
79. *Melospiza melodia melodia*. Song Sparrow. Common breeder both at Percé and Grande Grève.
80. *Melospiza lincolni lincolni*. Lincoln's Sparrow. Mr. Taverner shot a bird of this species at Gaspé on July 28th, 1914, but has no other record of it. I had found the bird in crossing New Brunswick on my way to the Gaspé Peninsula but although I looked for it everywhere there I did not find it.
81. *Passerella iliaca iliaca*. Fox Sparrow. Mr. Taverner has only one doubtful record of this bird at Percé. Messrs. R. B. Mackintosh and A. A. Osborne saw one there on July 14, 1915. I saw the bird not uncommonly at Percé and heard it singing through July and as late as August 1st. There were at least three pairs at Bonaventure Island. I did not find it at Grande Grève, but the song season was then over.
82. *Petrochelidon lunifrons lunifrons*. Cliff Swallow. This was the common Swallow, nesting everywhere under the eaves of buildings.
83. *Hirundo erythrogastra*. Barn Swallow. A few seen both by Mr. Taverner and me. I did not see any until August 3rd, evidently migrants.
84. *Iridoprocne bicolor*. Tree Swallow. I saw two or three at Cross Point and at Gaspé. Mr. Taverner saw a few.
85. *Riparia riparia*. Bank Swallow. A very few of this species were seen and those not till late in the season.
86. *Bombycilla cedrorum*. Cedar Waxwing. A few were seen by Mr. Taverner in Percé in 1914.
87. *Lanius borealis*. Northern Shrike. On August 18 I saw one of this species at Grande Grève.
88. *Vireosylva olivacea*. Red-eyed Vireo. I found a few of these birds at Cross Point and at Percé. Mr. Taverner took a specimen at Percé.
89. *Vireosylva philadelphia*. Philadelphia Vireo. At Percé on July 14th I had a momentary view of a bird that I believed to be of this species and I determined to follow up any vireo I heard singing. On July 21st in the gorge of the Grande Chute near Percé I heard a song resembling that of the Red-eyed, but not so continuous, the phrases were more distinct. I succeeded in seeing the bird within about fifteen yards and discovered that it was a Philadelphia Vireo.
90. *Lanivereo solitarius solitarius*. Blue-headed Vireo. One heard singing at Cross Point on July 5th, and one seen at Grande Grève on August 20th.



PERCE ROCK, QUE.

Courtesy of the American Museum of Natural History.



PERCE VILLAGE, QUE., WITH PERCE ROCK AND BONAVENTURE ISLAND
IN THE DISTANCE.

Courtesy of the American Museum of Natural History.

91. *Mniotilta varia*. Black and White Warbler.
Two were seen at Cross Point.
92. *Vermivora peregrina*. Tennessee Warbler.
A very common bird at both Cross Point and Percé and in full song. Mr. Taverner took several nests.
93. *Compsothlypis americana usneae*. Northern Parula Warbler.
One observed at Cross Point.
94. *Dendroica tigrina*. Cape May Warbler.
A few were seen by Mr. Taverner in 1914 and 1915. I saw one at Percé on August 2nd.
95. *Dendroica aestiva aestiva*. Yellow Warbler.
One was seen at Percé on July 14, 1915 by Mr. Mackintosh. I saw several at Cross Point and two or three at Percé. Mr. Taverner observed two at Gaspé.
96. *Dendroica caerulescens caerulescens*. Black-throated Blue Warbler. The only record is of one bird seen by me at Grande Grève on August 16th.
97. *Dendroica coronata*. Myrtle Warbler.
A rather common breeder.
98. *Dendroica magnolia*. Magnolia Warbler.
A very common bird everywhere.
99. *Dendroica castanea*. Bay-breasted Warbler.
Not uncommon.
100. *Dendroica striata*. Black-poll Warbler.
Abundant. Mr. Taverner found nests.
101. *Dendroica fusca*. Blackburnian Warbler.
A few were seen.
102. *Dendroica virens*. Black-throated Green Warbler.
Common.
103. *Dendroica palmarum hypochrysea*. Yellow Palm Warbler.
One was seen at Percé on June 10, 1915 by Mr. Taverner.
104. *Seiurus aurocapillus*. Oven-bird.
I found this bird not uncommon at Cross Point but did not see it elsewhere. Mr. Taverner did not observe it.
105. *Seiurus noveboracensis noveboracensis*. Water Thrush.
I found one of these in full song at Cross Point on July 5th and on August 17th and 19th saw one at Grande Grève.
106. *Oporornis philadelphia*. Mourning Warbler.
I saw one at Cross Point on July 5th.
107. *Geothlypis trichas trichas*. Maryland Yellowthroat.
I found a few of this species at Cross Point, but none elsewhere. Mr. Taverner does not record it.
108. *Wilsonia pusilla pusilla*. Wilson's Warbler.
Mr. Taverner does not record it in 1914 but in 1915 says "Not uncommon and seen in occasional individuals throughout our stay. Undoubtedly breeds." I saw none.
109. *Setophaga ruticilla*. Redstart.
Not uncommon.
110. *Nannas hiemalis hiemalis*. Winter Wren.
Not uncommon.
111. *Certhia familiaris americana*. Brown Creeper.
One seen at Grande Grève on August 8th.
112. *Sitta canadensis*. Red-breasted Nuthatch.
Not uncommon after August 6th at Grande Grève. The earliest seen by Mr. Taverner was July 29th.
113. *Penthestes atricapillus atricapillus*. Chickadee.
I saw two or three at Cross Point and also at Grande Grève.
114. *Penthestes hudsonicus littoralis*. Acadian Chickadee.
Not uncommon at Percé and at Grande Grève. Mr. Taverner secured four specimens. They belong to this subspecies. He also saw nestlings fed by parents.
115. *Regulus satrapa satrapa*. Golden-crowned Kinglet.
A few seen at Gaspé during August. Mr. Taverner found nestlings fed by parents.
116. *Regulus calendula calendula*. Ruby-crowned Kinglet.
One was seen at Grande Grève on August 16th. Mr. Taverner reports a flock of about ten of this species on July 24th, 1914, at Gaspé.
117. *Hylocichla fuscescens fuscescens*. Veery.
I heard three singing at Cross Point on July 5th.
118. *Hylocichla aliciae aliciae*. Gray-cheeked Thrush.
Mr. Taverner took one of this species on July 16th, 1914, at Percé. I saw one at Percé on July 13th, and heard its calls answered by another.
119. *Hylocichla ustulata swainsoni*. Olive-backed Thrush.
Common everywhere and singing until the middle of July.
120. *Hylocichla guttata pallasi*. Hermit Thrush.
A few at Cross Point and Percé.
121. *Planesticus migratorius migratorius*. Robin.
Common everywhere.

THE DIVING HABIT AND COMMUNITY SPIRIT OF THE SPOTTED SANDPIPER.

BY H. MOUSLEY, HATLEY, QUE.

In the "Ottawa Naturalist," for September, 1918, page 56, Mr. John D. Tohill gives an instance whilst out canoeing on the Restigouche River, of the diving of this small Sandpiper to avoid pursuit by a hungry Pigeon Hawk (*Falco columbarius*) and speaks of the behaviour as being unusual. I remember being equally surprised on first witnessing this habit some few years ago at Hatley. On that occasion I had shot an immature bird which fell at the edge of the water, but on proceeding to the spot to pick it up as I thought, was surprised to see it wade out into the water, where after getting out of its depth it sank to the bottom, and by means of its wings and feet proceeded to travel at a great rate under the water to a small mud bank, where it came to the surface and hid in the surrounding rushes. (See "The Auk," Vol. xxxiii, 1916, p. 66.)

That this wading, swimming and diving habit is by no means so unusual as most people imagine, seems to be borne out by the experience of others, for Dr. Warren notes that a young bird when wounded took to the water in a shallow stream, went to the bottom like a stone, ran across on the bottom, and coming up on the other side endeavoured to conceal itself by submerging its body and pushing its head among long grass growing at the water's edge. In September, 1876, Mr. E. H. Forbush saw a wounded bird of this species when pursued, dive into deep water from the shore of the Charles River and fly off under water, using its wings somewhat as a bird would use them in the air. All its plumage was covered with bubbles of air, which caught the light until the bird appeared as if studded with sparkling gems as it sped away into the depths of the dark river. (See "Game Birds, Wild Fowl and Shore Birds," Forbush, 1912, p. 323, where Dr. Warren's experience is also recorded). Dr. Charles W. Townsend remarks in his "Birds of Essex County," 1905, p. 188, that the young birds, while still covered with natal down, run very fast and when hard pressed, take to the water and swim rapidly and easily.

Regarding the community spirit of this restless little Sandpiper, the same author speaks of its being particularly fond of nesting on islands, and that in the late seventies he used to find the eggs at Kettle Island off Magnolia, whilst Mr. W. A. Jeffries found eleven nests with eggs, and one with young at Tinker's Island, off Marblehead, on June 8, 1878. Four nests were in the short grass on high land, while the others were all found more or less far under the rocks scattered over the grass or along the shore.

Nuttall in his "Manual of the Ornithology of the United States and Canada," 1834, Vol. 2, p. 164, speaks of their nesting at Egg Rock off Nahant, in the immediate vicinity of the noisy nurseries of the quailing Terns. Mr. Julian K. Potter, writing in "Bird Lore," Vol. xx, 1918, No. 4, pp. 282-284, says, "That the Spotted Sandpiper sometimes associates with others of its kind, and may be found breeding in a restricted area, is an established fact, but I believe, however, that this habit is the exception rather than the rule with these birds." He then goes on to relate how at the end of May, 1913, he found Spotted Sandpipers nesting in colonies within the city limits of Camden, N.J., as well as in the wilds of Pike County, Pa. In the former place six nests were found within an area of one fourth acre, whilst in the latter about twelve pairs (three nests were actually found) were thought to be breeding in quite a limited area.

As regards my own experience at Hatley, I have already recorded in "The Auk," that usually not less than six pairs used to nest on the margins of 'the marsh' some fifteen acres in extent, but of late years the numbers seem to have decreased. The most extraordinary case, however, of this community spirit and partiality for nesting on small islands is related by Mr. L. M. Terrill in his paper on "The changes in the status of certain birds in the vicinity of Montreal," "Ottawa Naturalist," Vol. xxx, 1911, p. 57, wherein he says, "Having seen no mention of gregarious habits attributed to this Sandpiper, it might be of interest to note that a few years ago a large colony were nesting on Isle Ronde (a small island of a few acres, opposite the city). Visiting this island on May 26, 1896, I located without difficulty thirteen occupied nests. Again on May 31, 1898, I examined upwards of twenty-five. On each occasion only a small portion of the island was examined and I estimated that there were well over one hundred pairs breeding."

In striking contrast to this might be mentioned my experience with the Common Sandpiper of Europe (*Tringa hypoleuca*) first cousin to our Spotted species, and a bird very like it not only in appearance but in general habits also. In the British Isles on the rivers Wharfe in Yorkshire, the Wye, Hamps, Manifold and Dove (the latter immortalized by Isaac Walton and Charles Cotton, the latter of whom calls her the "Princess of Rivers") all in Derbyshire, I have had ample opportunities of observing that instead of a community spirit existing the opposite seems to be the case, for there each pair of birds selects and monopolizes a certain

stretch of river, upon which no other pair appears to intrude. In conclusion it can truly be said that of the very intimate home life and traits of even our most common birds we know very little, and I have yet to see the text book that gives any definite in-

formation on the exact incubation period of the Spotted Sandpiper, which in the case of its cousin (*Tringa hypoleuca*) has only lately been ascertained to be twenty one days. See "British Birds," 1913, Vol. vii, p. 146.

WINTER BIRD LIST FROM LONDON, ONTARIO.

(SUBMITTED BY THE McILWRAITH ORNITHOLOGICAL CLUB, THROUGH MR. E. M. S. DALE.)

Have other localities been as favored with birds as was London last winter? From January 1 to February 8, forty-one species were reported which is about twice the normal number.

As is the usual practice of our club members we took the 7.40 train to Hyde Park on New Year's morning and walked back to the city, a distance of probably six or seven miles, following roughly the course of the River Thames. We made a list of twenty-two species, and on the following Saturday, January 3, visiting practically the same district, made another list of eighteen, which included six not seen on New Year's Day. Since then "one at a time" has been the usual rule until we now have a total of forty-one as above mentioned. December was quite cold and snowy, and January decidedly so, the thermometer registering zero and below on many occasions, and a snowfall of upwards of two and one-half feet being registered for the month. The list in order of date is as follows:—

January 1. Brown Creeper, White-breasted Nuthatch, Red-breasted Nuthatch, Bluejay, American Crossbill, White-winged Crossbill, Black-capped Chickadee, American Goldeneye, American Merganser, Snowbird, Rusty Blackbird, Red-winged Blackbird, Song Sparrow, Downy Woodpecker, Pine Siskin, Junco, Golden-crowned Kinglet, Cardinal, Crow, Purple Finch, Tree Sparrow, White-throated Sparrow.

January 3. Hairy Woodpecker, Black Duck, Redpoll, Goldfinch, Northern Shrike, Kingfisher.

January 4. Hudsonian Chickadee.

January 5. Robin, Evening Grosbeak, Long-eared Owl.

January 11. Bronzed Grackle.

January 12. Sharp-shinned Hawk.

January 16. Coopers Hawk.

January 21. Screech Owl.

January 22. Yellow-bellied Sapsucker.

February 1. Ruffed Grouse.

February 6. Pine Grosbeak.

February 7. Herring Gull.

February 8. Red-shouldered Hawk.

The following notes on some of the species may be of interest.

American Crossbill.—Two rosy ones feeding quite low in a hemlock tree. Others have been seen since in Norway spruces.

White-winged Crossbill.—The flock of twelve or fifteen seen on New Year's Day were in a hemlock which seems to be the favorite food of these birds here. There were several rosy ones in the lot. White wings have not been reported since that date.

Cardinal.—Previous to 1910, Cardinals were of accidental or very casual occurrence here. Since that date they have been gradually increasing in numbers and are now fairly common. One winter one of our members had six or seven feeding at his place. They are a very welcome addition to our bird population.

Siskin.—Pine Siskins were unusually abundant this fall, and since winter set in an occasional flock of two have been seen.

Rusty Blackbird.—This and the Redwing have been keeping each other company at a point where a little stream (which looks and smells like sewage) enters the river. It is our first winter Rusty although Redwings have been recorded twice before.

White-throated Sparrow.—White-throats have stayed with us occasionally in winter, but this bird is living right in the heart of the city, being fed by friends and using a Norway spruce hedge for shelter. During December and early January it sang with spring time vigor, and would answer readily to a whistled imitation of its song.

Redpoll.—Redpolls are quite common this winter, hardly a trip being taken to the country when they were not recorded. They have been feeding almost exclusively on birch trees.

Hudsonian Chickadee.—Two specimens were taken by a collector near London, and at least two more have visited the food shelves of members of our Bird Club in different parts of the city.

Evening Grosbeak.—First reported by Mr. A. Wood near Coldstream, on January 5th. Since then a flock of some twenty-five have been seen by different parties in and near the city, as well as smaller flocks which may be part of the twenty-five.

Black Duck.—An unusual winter duck for us. Has been seen several times in the same locality.

Yellow-bellied Sapsucker.—First winter recorded.

NOTES AND OBSERVATIONS.

A 1919 CHRISTMAS CENSUS FOR TORONTO AND OTTAWA.—The Bird-Lore Christmas Census is well known. With a view to adding two more Canadian localities to the 1919 census, an excursion was made at Toronto on December 24th, and one at Ottawa, on December 26th.

Unfortunately the lists were submitted too late to be included in Bird-Lore, but as they give an idea of the bird population of the two places at almost the same time, they may be of interest.

Toronto, Ontario, route from High Park to Grenadier Pond, along shore of Lake Ontario to Humber Valley, up river and return by Bloor Street; December 24th; 1 p.m. to 4.30 p.m.; 5 inches snow; snowfall 1.5 inches; wind north-west 25 to 21 miles per hour; temperature 18.5 to 14.7 degrees F.; about 8 miles on foot; observers together.

Herring Gull 7, Loon 2, Chickadee 11, Hairy Woodpecker 1, (perhaps 2) Horned Grebe (?) 1, American Merganser 1, Black-backed Gull 1, Duck (?) 1, Scaup Duck 1, Song Sparrow 2, Tree Sparrow 1, Crossbill (?) 1, Redpoll 1. Total species about 13; individuals about 31.

Observers: Stuart L. Thompson and Hoyes Lloyd.

Ottawa, Ontario, to Hull, Quebec, Fairy Lake and return; December 26th; 12.45 p.m. to 4.45 p.m.; wind south-east; average velocity 10 miles per hour; temperature 15 degrees F.; about 5 miles on foot; observers together.

Chickadee 3, Pine Siskin 58, Ruffed Grouse 2, Redpoll 7, Pine Grosbeak 15; Total species 5, individuals 85.

Observers: H. I. Smith, L. D. Burling, and Hoyes Lloyd.

Such lists become of value in proportion to the number of them from all parts of the country and conclusions upon isolated lists must of course be made with caution.

The greatest number of species recorded from Toronto is due to the presence of various waterfowl, some of which may almost always be found on Lake Ontario. The Grebe and the Merganser were seen close under the shore ice, where they seemed to be endeavouring to escape the strong off shore wind and driving snow. The Loons were found just outside the mouth of the Humber River, which was frozen over.

Perhaps the Black-backed Gull should be questioned. However, it appeared large in comparison with the Herring Gulls and the mantle was very dark.

There is no doubt about the Song Sparrow.

They were in their favorite winter haunt, a Cat-tail marsh. On the two other occasions when I have noted these birds at Toronto in winter they were found in the shelter of marsh vegetation.

The Ottawa list has fewer species; consisting strictly of winter birds; although weather conditions made the day much more favourable for observation. The routes traversed at Toronto and Ottawa are comparable; but there was no body of open water at Ottawa.

The flocks of Siskins were the most striking feature. They were feeding upon the abundant crop of cedar seeds. The Pine Grosbeaks and Redpolls were the first noted by me at Ottawa last winter.

HOYES LLOYD.

TEACHING BIRD PROTECTION BY MOTION PICTURES.—The Dominion Parks Branch of the Department of the Interior in co-operation with the Exhibits and Publicity Bureau of the Department of Trade and Commerce and the Biological Division of the Geological Survey, is endeavouring to promote the interests of bird protection in Canada through the medium of the motion pictures.

In films depicting bird life, as in other films, the Canadian element has not been duly represented. Of course films showing Canadian birds on their wintering grounds are of great value, but it is also desirable to balance these, by showing on the screen, pictures which tell Canadians of the wealth and value of the bird life existing to-day in Canada.

To tell a person, not particularly interested, that so many million dollars worth of crops are destroyed by insects, and that birds serve to protect these crops from damage does not impress him as much as to actually show the birds devouring the insects. Similarly, a dry dissertation on the need for distant bird sanctuaries, does not create the interest that a motion picture makes, which clearly shows the wealth of game and other birds protected by that sanctuary.

A beginning was made by showing the Geological Survey film of the "Birds of Bonaventure Island" and "Jack Miner's Geese," at two of the important fall exhibitions. These films are not suitable for general distribution because they lack sufficient explanatory titles, and in consequence, can only be used with lectures.

"A Bird City" which shows the birds on the Dominion sanctuary at Johnson Lake, Saskatchewan, was taken by the Trade and Commerce Department in co-operation with the Dominion Parks Branch and has already been given wide publicity in Canada.

Another film which shows the wonderful results obtained by Mr. and Mrs. J. C. Middleton in the winter feeding of birds at London, Ontario, is completed and others are in contemplation.

There are a multitude of subjects to choose from in planning such pictures, but it is quite possible that the reader of this article knows of good material for Canadian bird pictures which has not been called to the attention of the Branch. If this should be the case valuable bird protection work can be done by acquainting the Dominion Parks Branch of any discoveries made of nesting grounds, feeding stations and the like, so that motion pictures may be taken where possible. HOYES LLOYD.

HUDSONIAN CHICADEE.—Several Hudsonian Chickadees spent last winter with us here in Red Deer, feeding with the common Black-capped ones and making themselves very much at home. I have fed the birds every winter for many years and while numbers of our common Chickadees, Hairy and Downy Woodpeckers and latterly Blue-jays, fed daily on the food provided for them. This is the first time the little Brownies have put in an appearance at our feeding place. A friend reported having seen one near here several years ago. Winter caught us early in October, and my attention was drawn to a new bird note, which on investigation, proved to be the Hudsonian Chickadee, and in a very short time they were feeding with the other birds within a few feet of a window where I observed them at close range. All the birds were tame, the Chickadees absurdly so—and would settle on my hands when putting out food for them. It was rather amusing to watch the Hudsonians "bossing" the Black-caps, the latter having to give way to the strangers at all times. During the very cold weather their only note was a drawling plaintive de-de-de, very unlike our common Black-cap's clear notes; but with warmer weather and bright sunshine they sing two different songs—one a lovely bubbling note with a canary-like quality to it and the other beyond my powers to describe. Several people came to see these birds, and Mr. F. C. Whitehouse, Dr. Henry George and Mr. C. H. Snell have identified them. We hope they will stay and nest with us. We have a lot of spruce trees here where they could spend most of their time.

Description: Head dark brown, darker on forehead and over eyes; small white spot on cheek; back grey, washed with brown; wings dark grey; tail very dark grey; throat black; breast greyish white; sides cinnamon. One bird, which I presume was an adult male, had the breast pure white and the other colours correspondingly richer.

(Mrs.) ELSIE CASSELS, RED DEER, ALTA.

THE STARLING IN CANADA.—We all realize what a mistake it was to introduce the English or House Sparrow into America. However, even the lamentable results of naturalizing this alien was not a sufficiently awful example and the experiment had to be tried with other species. Most such introductions have been failures. The European Gold Finch survived in limited numbers for a while, but quickly died out. The success with other species, such as the Skylark was equally futile, except in the case of the Starling. It has succeeded and multiplied near New York and adjoining coastal localities and like most of such successful introductions we wish it had been otherwise. Whilst not promising to be such an arrant pest as the English Sparrow, its effect has not been good and, flocking to city parks, orchards and such semi-wild places, has still further displaced native species with whom we are in closer sympathy. It has shown all its bad habits and few redeeming good ones.

So far, in Canada, we have congratulated ourselves that our climate would prevent the intrusion of the Starling into our country and while we felt commiseration for our neighbors across the border we took little more than an academic interest in the matter. But it now looks as if our complacency was to be rudely shattered. The Starling has been reported from Canada.

Mrs. R. W. Leonard, of St. Catherines, Ont., writes that she saw a small flock about her place last winter. Further inquiries bring forth the following information from her in substantiation. The birds were observed at a distance of about twenty-five feet through field glasses and were identified by means of comparison with descriptions and plates in Chapman's Birds of Eastern North America, Reed's Bird Guide and the National Geographic Magazine. They are described as follows: "Their heads were dark and something like a blackbird's, the wings were a very dark shade of brown, speckled all over with light spots." This last detail seems to be conclusive and to quiet any doubts that might otherwise arise as to the identification.

There have not been any published reports of the birds occurrence anything like so far from the place of original introduction and it is surprising that they should have made this great jump in distribution without being reported from intermediate localities. Any other appearance of this species should be immediately reported that we may keep track of its spread and perhaps initiate methods of prevention.

P. A. TAVERNER.

HOW A YOUNG PUPPY AVOIDED STARVATION.—The Clearwater river, which enters the Athabasca at Fort McMurray, Alta., is from its mouth as far as Portage la Loche, a comparatively well-travelled canoe route. Several canoes at least will pass up and down its waters each month of navigation. This portion of the river was formerly an important link in the line of travel between the Churchill and Mackenzie river districts and is still largely travelled. Above Portage la Loche, however, the river is rarely used, the Swan lake Indians being practically the only travellers. These people inhabit the region about Swan lake at the headwaters of the river up in the granite area, and come down once a year to trade at Methye lake.

While on this upper portion of the Clearwater last summer, the writer came across an interesting example of how necessity can change the food habits of the domestic dog. On one of the portages at some little distance from the trail, a whining sound was heard, and on closer investigation a young puppy was discovered apparently not over three months old. In all probability he could not be found when the Indians moved their camp, as dogs in that country are too valuable to be voluntarily abandoned. Pathos was lent to the scene when he was discovered lying on a new Indian grave, which had been excavated laboriously by a wooden pick and shovel. These, as well as a motley array of ancient pails and cans, had been left on the grave, while nearby was a small bottle filled with water hung from a branch to ward off evil spirits. We afterwards learned that the Indians had left for their homes at Swan lake nearly two months before, and in all probability had been absent from the portage at least six weeks. The degree of slumping of the earth on the grave lent corroboration to this estimate. Apparently the puppy had lived on his own resources for that time. Considerable coaxing was required to gain his confidence so that he could be approached, but having done so, we were surprised to find that he was in much better condition than might have been expected. To one accustomed to seeing the gaunt, starving spectres of that country, which hang about the camps, stealing every possible scrap of food, the appearance of this little fellow, in an unhabited country, only a few weeks old, and whom one would not expect to know how to forage for himself, was quite remarkable. Upon closer investigation, it was found that he had changed his normal diet entirely, and, copying his cousin bruin, had become a berry eater. The country over which the portage passes is a burnt jackpine plain where blueberries and low bush cranberries grow in great profusion.

These fruits the young dog was eating constantly, and he continued to do so, even after we had given him, as we thought, a square meal of rice and meat scraps. Apparently he had become much addicted to his new diet. As he had made such a game struggle for existence, and as the autumn frosts would soon render his food supply precarious, we took him along until we reached the first Indian encampment on our return journey. Although well fed, whenever we landed, he would jump ashore and commence hunting for berries. One wonders why more dogs in that country do not take advantage of this kind of food, but such occurrences seem uncommon.

It may be added that kindness is as effective with the Indian's dog as with the most pampered poodle. The average dog of the north country, kicked, clubbed, and whipped from puppyhood, can scarcely be blamed for occasionally biting even the hand that attempts to pat or feed it. Although with us a very short time, this little dog was very affectionate and, as we paddled away, eluded the hands of the Indians to whom he had been given, jumped into the river and swam after us, and had to be returned forcibly to their keeping.

E. J. WHITTAKER.

Since mentioning the admirable work of Hamilton Laing in the Nature column of the *Toronto Globe*, (Can. Field Nat., xxxiii., p. 99). I have had my attention called to another similar writer in the *Daily Province*, Vancouver, B.C., J. W. Winsor who under the nom-de-plume of "Wild-wood" contributes a series of articles entitled Open-air Jottings. These are a little more purely literary than those mentioned before but breathe a wholesome out-of-doors spirit that is refreshing. They may not contain much information that is new to science but they present commonplace every day activities of wild and semi-wild things in an interesting light and must have a decided influence in educating the eyes of the indifferent to the wonders about them. It is to be regretted that the author does not boldly sign his own name. There is so much nature fakery that it is only due the public to let them know who they are listening to so they may judge authoritatively.

P. A. TAVERNER.

A SPIDER NEW TO CANADA.—At Lake Missanog, Frontenac Co., Ontario, on September 13th, 1919, I collected specimens of *Drapetisca socialis*, a little spider which runs about on the trunks of trees. Mr. J. H. Emerton, who kindly determined the specimens of this species, informs me that these are the first Canadian specimens he has seen.

A. BROOKER KLUGH.