

Toronto Field Naturalists' Club

APRIL MEETING

Monday, April 4th, 1955 at 8.15 p.m.

at the

ROYAL ONTARIO MUSEUM

Members Night

Mr. Jim Mackintosh - Garden Superintendent of Glendon Hall for the past twenty-three years will speak on "Glendon Hall".

Mrs. H. R. McGregor will show a series of close-up pictures of flowers and fungi, entitled "Colour in the Woods".

Mr. Jim Simon will show a number of pictures taken on Club outings.

Mr. Harold Whyte, Photographer on the staff of the Evening Telegram, will show a movie entitled "The Barn Owl".

Mr. John Mitchele, Chairman of the Programme Committee, will show kodachromes of the aftermath of Hurricane Hazel.

Notices of all outings for the remainder of this season will be found in the "Spring Outings" folder enclosed herewith.

The Junior Field Naturalists will hold their next meeting on Saturday, April 2nd. Election of officers will take place at this meeting, copies of Flight Magazine will be distributed, and prizes will be awarded for the best speech of the year and the four best contributions to Flight. A movie entitled "The Ring-necked Pheasant" will be shown.

President - Mr. F. W. Darroch

Secretary - Mrs. J.B. Stewart
21 Millwood Road,
Toronto.
HU 9-5052.

Toronto Field Naturalists' Club.



NEWSLETTER

Number 131

March, 1955.

Wishart Campbell and I hadn't gone half a mile into the Ajax fields on the afternoon of March 6th before we were brought to a halt by seeing a meadow lark fly up from a mass of tall weeds. Mindful, painfully mindful, of the failure to find meadow larks in these fields on the Christmas census, I tormented myself with the thought, I wonder if that field is full of those larks we didn't find. Test the annoying idea I must, so while Wishart stayed in the car, I tramped through weeds and grass on ice-stiffened mud. They were there, no doubt. One by one they rose as I advanced. A passing car on a side road put up a dozen from another corner of the field. It was a pleasing but also an irritating sight. Twenty-five came into view before I retreated to the car. Then only did I find out why Wishart had stayed put; this was an old story to him. Beginning with the week following the census he has seen the larks in these fields repeatedly since. Oh well, it only goes to show that a census is probably never complete.

The larks streamed across the road before the car, landing in the next field, where a long reach of stubble formed an attraction. Rapidly they worked along the field, gleaning amid the brown stalks of cut grass, finding, I suppose, a meal of fallen seed. If I felt some annoyance that these birds had not shown up to be counted on the census, I now forgave them for, in the face of a frigid wind, several of them burst into song. All signs to the contrary this was spring, musical defiance of winter's blast, joyful prophecy of the days of rebirth now to begin. That these were the wintering birds and not newcomers I have little or no doubt, not only because of Wishart's repeated sights of larks here during the winter, but also because to this date (March 6th) there were no indications of the arrival of any spring migrants other than horned larks and crows.

That it was going to be a good afternoon there now could be little question. When the tumbling waves off the Ajax bluffs were seen to be playing host to two grebes, a red-necked and a horned, we took the sight almost as a matter of course, though neither of these species has been seen in Toronto this winter.

Whether it was the impulse generated by these discoveries, or some deeper urge that turned our course toward the old cornfield near the mouth of Duffin's Creek, where we had discovered longspurs in December. I do not know. At least that is where we now went, the half-melted roadway being just hard enough with ice to enable us to drive in. Walking the length of that field, its icy furrows now treacherous with a film of watery muck, our faces slashed by an ever more frigid boreal blast, was something of an ordeal. Clothes were scant protection against the fierce gusts: our limbs were numbed as we slithered along. Unpleasant birding you will say. Quite so, especially as all we found was weeds, old cornstalks, ice and mud. Still, if there was nothing in the field there might be something on the lake. Two thirds of the way downfield I made a sweep of the lake ahead, and sure enough birds were to be seen, bouncing on the waves. Compensation for our effort lay in front. We pushed on. Not until we stood on the bank was it possible to get any idea what sort of birds were braving the tossing water. Even then, only by bracing our backs against stout old willow trees could we bring our binoculars to bear with adequate steadiness. Finally, I sat down at a picnic table, rested my elbows on the table-top and looked again. Why all these precautions? Not merely the wind, I assure you. No, I could not easily believe what my eyes were telling me. Now, after a long and careful surveillance of two good-sized greyish-white-backed birds, close enough together to be in my field of vision at once, I excitedly accepted the fact that I was looking, really looking at two red-throated loons. Both were in winter plumage, but each had the characteristic, slender up-turned bill of this species. At the start they were reasonably close to shore but as we watched they swam out until barely visible, tumbling lake waters seeming to have no alarms for them. Never common here, a red-throated loon is a find at any time in Toronto. These are the first I have seen since the spring of 1953. It was noticeable that, although a dozen common mergansers were feeding nearby, the two loons kept to themselves, some distance from the mergies. When the pair swam away it was in the opposite direction from the others; evidently they were satisfied to be alone. Inasmuch as red-throated loons do occasionally winter on the Great Lakes, especially Lake Ontario, these two could have been around all winter. I remember that we once found a red-throated loon on the Christmas census, and that was at Frenchman's Bay, only two miles to the west. But if they have been around they have been missed hitherto. Perhaps they were across the lake on the New York side, and have only now come across, a first stop on migration.

Judging from the way in which this pair clung close together

it may well have been a mated couple. Red-throated loons are known to migrate often as mated pairs, and there is some evidence that suggests that some of the loons may mate for life. Where would such a pair be heading for? Would it be Labrador, among the fog-bound hills where in countless little lakes and ponds red-throated loons find suitable summer homes? Or might it be Alaska, where in the northern part this is the most abundant and widely distributed of loons? But it could be anywhere in between along Arctic shores or on tundra ponds for this loon nests all across the northernmost parts of North America, for that matter all around the northern fringe of the northern hemisphere.

They arrive on their breeding grounds as soon as winter shows any sign of loosing its grip, sometimes when the lakes are still frozen. Then they have to stay at the mouths of rivers or on the open sea until melting snow makes pools where they can think of building nests.

As with our common loons, the courtship procedure is very dramatic. Audubon, writing in 1840, discussed it, as he saw it in Labrador. He says, "High over these waters, the produce of the melted snows, the red-throated diver is seen gamboling by the side of his mate. The mates emit their love notes, and with necks gracefully curved downward, speed by the females, saluting them with mellow tones as they pass. In broad circles they wheel their giddy flight, and now, with fantastic glidings and curves, they dive toward the spot of their choice. Alighted on the water, how gracefully they swim, how sportively they beat it with their strong pinions, how quickly they plunge and rise again, and how joyously do they manifest to each other the depth and intensity of their affection. Now with erected neck and body deeply immersed they swim side by side. Reynard they perceive, cunningly advancing at a distance; but they are too vigilant for him, and down like a flash they go, nor rise again until far beyond his reach. Methinks I see them curiously concealed among the rank weeds under the bank of their own islet, their bills alone raised above the water, and there will they remain for an hour, rather than show themselves to their insidious enemy, who, disappointed, leaves them to pursue their avocations."

To some such experience in some far northern home are the two loons of that day's experience probably destined. We wished them well, and in turning back to the car thought, this wintery onslaught will hold them here a long time yet. Many weeks must pass before their summer homeland will be habitable.

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On March 6th Toronto region was still mostly in the grip of winter, though singing horned larks and meadow larks, cawing crows and acres of ice cakes piled on the banks of all the streams betokened the coming change. On the night of March 10-11 came a sudden shift in weather, marked by crashing thunder showers in

the early hours of the 11th. The next morning, with the temperature in the fifties, and westerly breezes blowing, the sky was filled with migrating crows. Flapping over in hundreds, they were heading north-eastward in the direction they usually follow in spring migration. The night before Greer Roberts called to tell me he had seen a killdeer passing over his place of business. Early on the morning of the 11th W.C. Milne reported song sparrow, red-wing, and grackle singing in Weston. In the afternoon Mrs. Vera Trowern called to say that a flock of robins had just landed on her own and neighboring lawns, and at 5.30 the same afternoon our own garden robin arrived. Hurrah! The break has come. Spring is bursting through old Man Winter's last defences!

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In a recent letter (February 24th) Mrs. G.A. Kingston asks "Have many people in Toronto or elsewhere found bats on their front verandahs in February?" She then goes on to announce. "Early in the month that is what happened to me, and was I surprised! Tucked in behind our door mat and sheltered by the low, overhanging step I discovered what at first I thought was either an injured or dead bird or mouse. When I moved the mat for a better look it turned out to be a large bat, very weak or very sleepy. I certainly never expected to find a bat there during such cold weather. Where could it have come from? As I moved it, it spread its winged arms, and opened its large pink mouth, showing very white and very sharp, vicious looking teeth. Each wing must have been about three inches wide. Fearing it might get injured or die of cold, I picked it up with the aid of a duster, and put it in the garage. It had such a hold upon the duster that I had to leave that with the bat, as a light covering. Next morning the bat was gone. The following day I had a better look for it, and, sure enough, it was still there, cuddled up in a corner near the ceiling. It stayed two or three days, then disappeared as mysteriously as it came. I suppose bats and birds can be quite similar in their habits. Some stay with us during the winter, some do not. But when I think of bats I instinctively think of nice, warm, summery weather." *

*Ed. Note: This observation undoubtedly refers to the big brown bat. This species has adapted itself to living around human habitations, and is particularly likely to be found about buildings in winter. It is only a partial hibernator, so that whenever the weather warms a little, perhaps especially towards the end of winter, this species is likely to become active. Personally I have never had the good fortune to see an active bat during the winter, and Mrs. Kingston is the first person to report such an observation to the Newsletter. Mr. Stuart Downing, Mammalogist at the Royal Ontario Museum, tells me, however, that a number of reports of similar observations are made to the Museum every winter, notably in the latter part of the winter. These all concern the big brown bat, Eptesicus fuscus. Incidentally these bats are wholly beneficial, being avid feeders on flies, mosquitoes, and other insects.

In noting the weights of mammals, some interesting facts and comparisons come to light.

The largest and heaviest animal known to man, past or present, is a mammal, the Blue Whale, siddaldus musculus. There are many species of whales, some quite small, but Blue Whales have been taken weighing 150 tons. R.B. Robertson, in "Of Whales and Men", gives the following figures for a specimen weighing about 135 tons. "The tongue weighed 3 tons; the lungs, 1 ton; the heart, kidneys and stomach, each $\frac{1}{2}$ ton. There were 8 tons of blood. The skull was about the size of a motor car, and the brain was not much bigger than a carburettor."

At the low end of the mammal scale, we have the Pygmy Shrew, microsorex hoyi, found in Ontario. An adult may weigh as little as a dime. Some are small enough to enter holes in the ground left by earthworms.

The weights of mammals are often over-estimated. This is particularly the case with bears. The Polar Bear, thalarctos maritimus, will weigh over half a ton. The Grizzly Bear, ursus horribilis, may go up to 850 lbs. The Big Brown Bear, ursus middendorffi, the largest of bears has been known to weigh $\frac{3}{4}$ of a ton. But the species common in Ontario is the Black Bear, ursus americanus. Probably the average adult would weigh less than 400 lbs. Occasionally one will weigh a little more, and it is just possible that one might be taken in the wild weighing well over 500 lbs. When we hear, or read in the newspapers, of Black Bears being shot weighing 600 lbs. or more, we can be almost sure that it is an estimate, similar to those made by enthusiastic anglers.

Our Red Fox, vulpes fulva, will generally weigh about 10 or 12 lbs., seldom if ever exceeding 15 lbs. It really has a small body, but gives the impression of being heavy, because of the long fur, and long, bushy tail.

It might be thought that new-born young would weigh in proportion to the weight of the mother, but such is not the case.

The smallest and lightest young, in proportion to the adult, is to be found in the marsupials. Of course, they are born in an undeveloped state, and spend considerable time in the pouch, before even taking a look at the outside world. The Opossum, didelphis marsupialis, is the only Marsupial found in Canada and U.S.A. An adult will generally weigh 8 or 10 lbs., very occasionally going up to perhaps 14 lbs. There are as many as 18 in a litter, although less than half of that number survive pouch life. The entire 18 young weigh only a small fraction of an ounce and could easily be contained in a teaspoon.

Our Ground Hog, or Woodchuck, marmota monax, will weigh from 5 to 10 pounds and the young, 2 to 6 in number, are each a

little heavier than an ordinary House Mouse, mus musculus, and would be considered neither unduly large nor small for the weight of parent.

Our Black Bear, which as noted above might weigh 400 lbs., has a litter of from 1 to 3, each weighing only about $\frac{3}{4}$ of a lb., or less than one five-hundredths of the weight of the mother. Except for the Opossum, this is probably the smallest weight ratio of any North American mammal.

The extreme high ratio is found in our Porcupine, erethizon dorsatum. Ordinarily this mammal weighs from 10 to 20 lbs., although there is more variation in weight than in most species, there being a few records up to 35 pounds.

One to a litter, and one litter a year is the rule, but the young generally weigh more than a young Black Bear. One pound to one and a quarter pound are common weights. It is quite possible for a young Porcupine to be one-tenth of the weight of its mother. This is greater than the proportion in another common mammal, homo sapiens, where one-fifteenth of the mother's weight is a fair average.

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BOOK REVIEWS

Last of the Curlews By Fred Bodsworth. Illustrated by T.M. Shortt; Dodd, Mead and Co. New York, 1955. pp. 128. Price \$3.50.

Few people who pick up this elegant little volume can fail to be aware that they have in their hands a superb example of fine bookmaking. Seldom in the flood of present-day books do we see such a sample of good workmanship. The quality of paper, the clear, bold type, the wide-margined pages, the dignified yet delicately lovely cover, all combine to make a book of physical beauty for which the publishers must certainly be warmly congratulated.

It nowise detracts from the merit of Mr. Bodsworth's creative tale to say that the first thing that strikes the person who picks up this volume, after the appearance of the book, is the really striking attractiveness of the illustrations. Terry Short has caught the spirit of Bodsworth's saga of the curlew to perfection, and in so doing has added extraordinary vividness and vitality to an already robust and moving story. It is incredible that such a sense of movement, of freedom of grace, of danger, of joy and suffering, of the living experience of wild creatures can be conveyed in black and white drawings. Yet so it is as anyone who turns these pages must confess.

The story is not long. It need not be. Indeed it would be

spoiled if it were. For as it stands it is an artistic gem. A sad story it is, the epic of the last of the Eskimo curlews, who in his exciting months of life lives the tragic life and death of a creature now gone into oblivion. Imaginatively told, with a poignant sensitivity to the dumb suffering of the last of a race, this prose epic takes the reader into the creature's mind, yet it never makes a human out of the tragic bird. In this Bodsworth has achieved a triumph.

All the way through, as a book, in the illustrations, as a story, this is a work of art.

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Evolution of the Vertebrates.

By Edwin H. Colbert.
John Wiley and Sons, Inc. New
York, 1955. Pp. xiii, 479.
Price \$8.95.

The author of this most up-to-date summary of the evolution of the vertebrates speaks with a voice of great authority. He is curator of fossil reptiles and amphibians at the American Museum of Natural History, and Professor of Vertebrate Paleontology at Columbia University. He is also a past president of the society of Vertebrate Paleontology and a former editor of the Society for the Study of Evolution.

It is not surprising, therefore, that we should get from his pen so authoritative an account as appears in this book. He does not undertake to discuss either the principles or the mechanism of evolution, and certainly he ventures into no metaphysical queries as to why it takes place. His is a much more straightforward and sober aim; namely to provide "A general textbook on vertebrate paleontology in which there is set forth an account of the evolution of backboned animals as based on the fossil record". In other words this book is a statement of the facts so far as they are at present known. Written for the "general student" and the "lay reader" more than for the "specialist", highly technical language has been avoided "as far as possible", according to the author. I fear, however, that the general reader will nevertheless find the paleontological terms hard going. Paleontology is not a subject that can easily be reduced to popular language. In fact, I would say that this is not a book for the general reader at all. He will be lost. For the student of zoology, of geology, of anthropology, on the other hand, there is no doubt that this book is the most satisfactory summary of existing knowledge on the subject.

The usefulness of Dr. Colbert's book is greatly enhanced by the excellent black and white illustrations done by Mrs. Lois Darling. These include some very interesting and impressive

"restorations" of these animals of the past, a number of phylogenetic charts, and many drawings of bones, skeletons, etc. A classified table of the chordates "to assist the reader in maintaining his orientation among the orders and lesser categories of the vertebrates" appears at the back of the book. So too does a good working bibliography of the field. The indexes are excellent. This is a good workmanlike book for the senior student.

R. M. Saunders,

Editor.