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THE OTTAWA NATURALIST

VOL. XXV.

OTTAWA, JULY, 1911

No.

CHANGES IN THE STATUS OF CERTAIN BIRDS IN THE VICINITY OF MONTREAL, P.Q.

BY L. McI. TERRILL, WESTMOUNT, QUE.

The following notes refer to the local abundance of certain birds that are gradually extending their breeding range in a north-easterly direction, and to other species, that, as summer residents, have either disappeared, or are fast disappearing from this vicinity.

To emphasize this I have made a comparison of the present standing of these species, with that of fifteen years ago, and have quoted from Mr. E. D. Wintle's list of Montreal birds, published in 1896—such quotations being marked with asterisks.

I have also made notes on other species of breeding birds, listed by Mr. Wintle, as doubtful or rare summer residents.

NYCTICORAX NÆVIUS, Black-crowned Night Heron.

"Summer resident; common. Breeds on islands in Lachine Rapids."*

These birds have forsaken their former nesting grounds but still breed in large numbers in the flooded ash swamps bordering on the Lake of Two Mountains. In two heronries visited on May 24th, 1908 and 1909, there were several hundred pairs nesting.

ACTITIS MACULARIA, Spotted Sandpiper.

"Summer resident; abundant."*

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 26th, 1896, I located without difficulty thirteen occupied nests. Again, on May 31st, 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.

ACCIPITER VELOX, Sharp-shinned Hawk.

"Transient visitant; common."*

I have found this *Accipiter* a much more common summer resident than formerly suspected. I have read of the harsh scream of this bird, but to me it sounds very subdued for a hawk, and suggests more the cackling notes of the Kingfisher or Arctic Three-toed Woodpecker. What few vocal powers it possesses are seldom voiced, and to make matters more difficult it rarely ventures from the seclusion of dense coniferous growths and adjacent sphagnum bogs. The Marsh Hawk is often a close neighbor, nesting amongst the small growth of the bog, and both find the latter a congenial hunting ground. The Sharp-shinned Hawk is not averse to a neighboring farm-yard, as the loud-voiced "buteo" in the nearby woods, takes blame for any missing poultry.

ACCIPITER COOPERI, Cooper's Hawk.

"Transient visitant; scarce."*

I know of only one instance of this hawk breeding in the district. This has been noted by Mr. W. J. Brown in the *OTTAWA NATURALIST*.¹

ASIO WILSONIANUS, Long-eared Owl.

"Transient visitant; scarce."*

This species, like the Sharp-shinned Hawk, might easily escape notice, as a summer resident, by reason of its retiring habits, and the fact that it is a very close sitter and not easily disturbed from the nest. I have found it to be a fairly well distributed summer resident, throughout the district, wherever cedar groves occur.

OTUS ASIO, Screech Owl.

"Winter visitant; scarce."*

I know of two instances of this Owl's occurrence here, in the summer: June 25th, 1910, I came across a family of young and adults in a cedar swamp. These birds all had grayish plumage and were in the same locality on July 1st and 6th; September 12th, 1908, I secured a bird in the red phase of plumage.

BUBO VIRGINIANUS, Great Horned Owl.

"Permanent resident; common."*

Much less common than formerly and I should class it as a rare resident.

ANTROSTOMUS VOCIFEROUS, Whip-poor-will.

"Transient visitant; scarce."*

I have found this species common throughout the Caught-

¹ Ottawa Naturalist, July, 1908.

nawaga Indian reserve; scarce elsewhere in the district though common to the north in the Laurentian Hills. An almost unbroken stretch of small second-growth covers the rolling land of the Caughnawaga reserve, with occasional prominent sugar groves on the uplands and marshes in the lowlands. Whilst passing through this district on May 16th, 1909, I heard the notes of this species just before dark—about 7.45 p.m.—coming from several directions, and on other occasions, throughout the summer, have surprised individuals into noiseless flight.

EMPIDONAX TRALLI ALNORUMS, Alder Flycatcher.

"Summer resident; scarce."*

During the past fifteen years I have found this Flycatcher more abundant than any other of the family. Frequently I have found two or three pairs nesting quite closely to one another, and on July 1st, 1910, in a favorable second-growth patch. I counted three occupied nests and another in course of construction, all within a radius of fifty yards.

OTOCORIS ALPESTRIS PRATICOLA, Prairie Horned Lark.

"Summer resident; common."*

This species has been steadily on the increase and I should call it an abundant summer resident.

CYANOCITTA CRISTATA, Blue Jay.

"Transient visitant; common."*

The Blue Jay is a very quiet bird, in this district, during the breeding season, and I have only found it nesting in a few restricted localities.

STURNELLA MAGNA, Meadowlark.

"Summer resident; scarce."*

Mr. Wintle records only one bird for the district, shot at Laprairie, seven miles from Montreal, on the 10th of October, 1891. Six years later I saw one at Cote St. Luc, three miles from the city. Absence from Montreal during the greater part of four years (1899-1902) leaves a possible blank in my records; but again, in 1904, I saw a flock of twelve at Cote St. Luc on September 25th, and another flock at Cote St. Paul, two miles from the city, on October 9th. In the spring of 1905 (April 20th) they were fairly well distributed throughout the neighborhood of Cote St. Luc, and on June 9th of the same year, an occupied nest was found at Cote St. Paul. Since this latter date it has become yearly more numerous and to-day is a common, if not an abundant, summer resident.

JUNCO HYEMALIS, Slate-colored Junco.

"Summer resident; abundant. Breeds in Mount Royal Park."*

I have never found the Junco, during the breeding season, in the vicinity of Montreal. No doubt in years gone by it nested on Mount Royal, as they still do, to some extent, on the slopes of neighboring isolated mountains, such as Belœil, Yamaska and Oka. They are common twenty-eight miles to the north, in the Laurentians, but give a wide berth to the low-lying country between Montreal and Farnham. After passing Farnham they become evident again and are abundant at Sherbrooke.

ZAMELODIA LADOVICIANA, Rose-breasted Grosbeak.

"Transient visitant; common."*

On July 10th, 1896, I saw a male bird at Cote St. Luc. It was uttering its metallic alarm notes at the time and likely the female had young in the vicinity. On June 22nd, 1897, I located a nest with three eggs in a deserted garden at the base of Mount Royal. Since the latter date this species has gradually increased in numbers and to-day may be considered a fairly common summer resident.

PIRANGA ERYTHROMELAS, Scarlet Tanager.

"Transient visitant; common; I have not seen this bird in the autumn and like the Rose-breasted Grosbeak it probably returns south by another route."*

Likely breeding 100 miles to the north-west, in the Laurentians. From September 4th to 6th, 1909 and 1910, I saw numbers in partially cleared land near St. Faustin, Terrebonne County.

PROGNE SUBIS, Purple Martin.

"Summer resident; common."*

Our most numerous city birds, not considering the cosmopolitan "Sparrow," are those that feed on the wing. In order of abundance they might be listed as follows:—Chimney Swift, Nighthawk and Purple Martin. They are most commonly found along the Lachine Canal and river front, presumably as insects are there in greater abundance than elsewhere. This liking for the vicinity of water is evidenced in the autumn, when, sometime prior to their southern migration, they forsake the city and are to be seen in numbers over the river. Nighthawks and Swifts are apparently indifferent to the Sparrow and, in my estimation, the Martin is well able to hold its own. There are very few nesting boxes in the city but these few are well occupied by the Martins. Lack of these nesting sites along the canal and

river front—especially at Lachine—has caused the Martins to make extensive use of arc lamp reflectors. There are some Martin boxes on Guy Street near the Lachine Canal that I have passed almost daily during the last eight years. Early in the spring the Sparrows invariably occupy these boxes and as regularly, about the 6th of May, two or three pairs of Martins appear and immediately take possession. The Bank Swallow does not abhor the city when suitable nesting sites are attainable, and the Wood Pewee is a frequent summer resident. Both of these birds feed, to a great extent, on the wing. It would appear then, that birds pre-eminently of the air, can satisfactorily cope with existing conditions in the city; on the other hand, those of terrestrial habits, that feed largely amongst vegetation, are proportionately rare.

The average Upper Canadian town has a very fair population of birds. One finds the Yellow Warbler, Goldfinch, Red-eyed Vireo, Wood Pewee, Least Flycatcher, Oriole, Robin, Bronzed Grackle and others mingling with the English Sparrow. Here, almost every house, with the exception of those in the commercial district, has its garden. Several Quebec towns exhibit the other extreme in a marked degree. Even where land is not at a premium, one will often find whole rows of houses with no frontage and dusty back-yards for gardens. It is not surprising that the Sparrow should prevail here as there is little to attract other bird life. Travel into the country back of a certain one of these towns, on the north shore of the St. Lawrence and one will pass a succession of wooded ridges with a road in each valley. Glance along one of these valley roads, with its line of white-washed houses right in the dust of the highway and you can almost estimate the population. The forest forms an unbroken background on the distant ridge, while scarcely a tree obstructs the vision in the foreground. Here is the source of the conditions in the town and here again one finds the English Sparrow predominant.

DENDROICA MAGNOLIA, Magnolia Warbler.

"Transient visitant; common."*

Though not at all a common breeder in the vicinity of Montreal, I have thrice found its nest and have seen it on other occasions during the breeding seasons. It is common in the Laurentians to the north and one hundred miles to the east—in other words, it confines itself principally to the larger coniferous belts.

DENDROICA VIRENS, Black-throated Green Warbler.

"Summer resident; common spring migrant but scarce summer resident."*

This Warbler shows a decided preference for hemlock growths, and is locally common wherever this tree occurs in abundance.

SEIURUS NOVEBORACENSIS, Water-Thrush.

"Summer resident; scarce."*

I have found this species breeding fairly commonly in suitable localities, throughout the district. It prefers swamps of mixed ash and cedar where the rank growth of nettles half conceals stumps and upturned roots. This species frequently associates with the Canadian and Mourning Warblers.

OPORORNIS PHILADELPHIA, Mourning Warbler.

"Transient visitant; scarce."*

I have found this Warbler to be an almost equally common summer resident with the Water-Thrush. It does not always confine itself to swamps, however, as, on June 9th, 1905, I flushed a female from a typical nest and four fresh eggs, built in an isolated clump of goldenrod, sheltered by small sized hazel bushes, almost at the summit of the pine-fringed, rocky, western spur of Mount Royal.

WILSONIA CANADENSIS, Canadian Warbler.

"Summer resident; scarce."*

I should class this species as somewhat more numerous than the two last mentioned. Its bright song is to be heard in nearly all of our cedar swamps and occasionally I have found it domiciled in wet alder growths.

TOXOSTOMA RUFUM, Brown Thrasher.

"Summer resident; common."*

For some unaccountable reason this bird has apparently disappeared from the vicinity of Montreal. On 1st June, 1897, I flushed one from its nest and four eggs, in a hawthorn bush on the slope of Mount Royal. Previous to 1897, I had noticed a few pairs each season but have seen none since.

NANNUS HYEMALIS, Winter Wren.

"Transient visitant; common."*

I have only once examined a nest but have heard its song throughout the nesting season in various cedar swamps in the vicinity of Montreal.

SITTA CAROLINENSIS, White-breasted Nuthatch.

"Permanent resident; common spring and fall migrant, but scarce summer resident."*

The above coincides with the vocal activity of this species.

In the spring its nasal "yank" is most commonly heard, but when nesting it is extremely quiet, though, I believe, no less common. Often, during the month of May, while eating my lunch in the woods (by choice I should select rather open maple woods and sit by the sugar-shanty) I have been attracted by the faint lisping imitation of the male Nuthatch's spring-time call. After sighting the bird, busily searching for larvæ, it was usually not long before a sudden quick flight to feed its sitting mate, would disclose the nesting-site.

PENTHESTES ATRICAPILLUS, Chickadee.

"Winter visitant; common."*

The Chickadee should be described as a rather scarce summer resident, as I have found it breeding on several occasions, both on the Island and in the immediate vicinity.

HYLOCICHLA GUTTATA PALLASI, Hermit Thrush.

"Summer resident; common. Breeds in Mount Royal Park."*

Mount Royal has become too popular a resort for this species and it is a scarce bird on the Island in the nesting season. Fifteen miles to the north and thirty to the east it becomes the common Thrush of the respective localities. It is particularly fond of sandy ridges with a rather sparse growth of pine and white birch.

THE TEACHING OF INSECT LIFE AND ITS PRACTICAL IMPORTANCE.

BY C. GORDON HEWITT, D.Sc., F.E.S.,
Dominion Entomologist, Ottawa.

Each year sees the origin of new methods, new ideas, and new subjects calculated to produce a more perfectly educated child. There is no doubt a concomitant racking of brains on the part of teachers to adapt and correlate these new additions to their previous curricula. Not infrequently, owing to a somewhat overcrowded and hopeless conglomerated time-table, teachers, usually those whose minds are not sufficiently elastic to enable them to progress with the evolving systems, utter a sigh of despair when any new subject is suggested, and for the sake of these it is necessary to dispel their fears and soothe their troubled spirits with the assurance that this article does not suggest any addition to their systems of instruction: such a sin I would be unwilling to have laid to my account. The reasons

advanced in justification of these random remarks strung together to form an article, are: first, that it is hoped that it may assist those who wish to make the teaching of natural history, in reference to insect life more particularly, of practical value to the child in showing the relations which these animals bear to man; and secondly, to show that this can be accomplished without any addition to already existing curricula, and how it can be correlated with such, at first, seemingly unconnected subjects as geography, hygiene and history. Teachers are realizing that it is only by a correlation of subjects that a harmoniously balanced system of education, as opposed to the ancient, and in many quarters still extant watertight-compartment and cast iron systems, that an all-round developed mind and a mind capable of thinking and reasoning can be produced.

For many years it has been the custom of a number of teachers to give instruction, both in school and in the open field, in the natural history of certain of the commoner creatures. Every child knows the tadpole and is acquainted with the fact that the butterfly is not always the gaudy creature it would have us believe, but that it has passed through a far more lowly stage before its promotion to a winged condition. Such facts as these were commonly inculcated. Then, like a tidal wave, the cult of "Nature Study" swept over the country; a new gospel to many teachers, but an old one to those who were nature lovers themselves. The great benefit of this insurgence was that it assisted in establishing the importance, which all true educationalists have realized for many years, of teaching the child the nature, relations, and meaning of the things around it, its fellow inhabitants of the world. To teach the child to see, what to many people is a closed book, the "fullness of the earth and the riches thereof." To enjoy to the full the unsurpassed pleasures of a country ramble, and to become an intelligent member in the great fraternity of living creatures, instead of an ignorant dweller on isolated Olympian heights. That to my mind is the greatest value of a rational system of instruction and guidance in this inexhaustible lore.

But to-day, such instruction is even more important, for with the advance of scientific investigations we are discovering daily that these humble fellow creatures, especially insects, bear a far greater relationship to the welfare of man than was realized some years ago. What has prevented the penetration and colonization of immense areas of the continent of Africa? Not the hostility of native tribes, nor impenetrable forests, for man has overcome these obstacles in other countries; it was nothing more than the presence of two small insects, the malarial mosquito on the one hand and the tse-tse fly on the other. It was not solely the

exhaustion of financial means which prevented the cutting of the Panama Canal, so much as the impossibility of carrying on the work in that mosquito-infested territory, which obstacle has been overcome by the application by the United States officials of such anti-mosquito measures as the study of the mosquito problem has shown to be necessary. It is now realized that flies, such as our common domestic fly, were responsible, by the carriage of the germs of enteric fever, for far more deaths in the South African War than all the bullets and shells of our adversaries. The activities of insects not only increase the rates of mortality, especially of our young children, in large cities, but also deprive man of the results of his patient toil on the land. It is estimated that in the United States and Canada that the total annual loss due to the depredations of insects alone is from 10 to 25 per cent. of the total value of the crops produced, which loss annually amounts to millions of dollars.

As an example of the enormous depredations of injurious insects in Canada, a species of saw-fly is causing the destruction of all the larch or tamarack trees over a tract of 1,500 miles of forest. In the eastern United States, two insects, the gipsy moth and brown-tail moth, which have been accidentally introduced from Europe, where they are kept in check by their natural parasites, are entailing an annual expenditure of over a million dollars in attempting to control them, and they are still spreading. These facts alone serve to indicate the practical importance, which is not usually realized, of the subject of insect life.

A few years ago an enthusiast suggested that the subject of economic entomology, as the science of entomology as applied to man's welfare is termed, should form a subject of the second curriculum. In reply to this it was pointed out by the writer that if insect life, or in fact animal life, were properly taught in schools, and no one will deny that such should be the case, this would necessarily include a consideration of the relation of animals to ourselves. It is not merely that the cow gives us milk, boots and knife handles; the sheep, clothing and food; the bee, besides being an example of industry, supplies honey and wax; and the silk worm, adornment; but what is equally if not more important (to quote a single example) the house fly is not only an annoying but a dangerous insect, and a menace to public health on account of its habits, which are now well known. These examples serve to show how insect life should be correlated with lessons on other subjects as hygiene, etc. Nor should teachers be unwilling to talk about the less attractive creatures such as the louse, in view of the reports of the Medical Inspectors of schools on the percentage of verminous children; this is not a pleasant subject for a teacher to deal with, but it is a very

necessary one, and one upon which there should be less ignorance than at present prevails. Instruction on insect life is incomplete and insufficient if these important aspects of the subject are not carefully interpreted to the child, and apart from the inherent utility, the increased interest aroused in the child's mind is such that the lesson will be remembered far better than if a mere "nature talk" of the usual type were given.

It is impossible in a short article of this nature, the object of which is one of suggestion rather than of formulation, to indicate the numerous subjects which insect and animal life treated in this manner supplies. There has been far too great a tendency in the past to treat animal life in a really lifeless fashion, and in a merely descriptive and "object lesson" manner. The interrelationship, the methods of living and the functions of animals have been insufficiently considered. To the child they existed, but existence is a small part of life. A living creature is not individualistic, it is a member of a vast kingdom of living beings, striving for existence, preying upon each other and in turn attacked insidiously by enemies greater or smaller than itself; seeking to secure the best means for the continuity of its kind, which is their chief end and paying dearly for mistakes in judgment or action. Individualism is impossible in the world of living things, every unit of life is dependent on and bears some relation to others, and, therefore, to treat them independently is not only impossible but wrong. A diatom is a microscopic unit of vegetable life and interesting in itself, but how much more interesting is it when we know it is not only one of the land-makers, by the accumulation of its microscopic skeletal structures, but also an important foundation of our food, for upon it numerous small crustacea feed, these in turn are consumed by larger crustacea of the crab family, and on these fishes subsist, and in this way contribute to the food of man himself. It is very rarely realized how dependent we are upon the constant warfare which is taking place in the realm of insect life for even our own existence. Were it not for the enemies of insects, to escape from which the latter are constantly striving, we should be deprived of every article of food, and vegetation would not exist, but the activity of certain insects, which are parasitic on the insects destroying our crops and vegetation, keeps them in check and thanks to the habits of those species of birds which feed upon insects, a balance is maintained. If a certain species of insects, owing to a plentiful supply of a suitable food, increases out of proportion, it is almost invariably checked by a concomitant increase in its enemies. The importance of parasitic enemies in controlling these insects destructive to vegetation and in maintaining this balance is well illustrated

in the case of the two moths to which reference has already been made, the gypsy moth and brown-tail moth, which have been introduced into America. They did not bring with them their parasites which keep them in check in European countries, and in the absence of these natural means of control they have increased enormously. For example, between the years 1896 and 1902, the brown-tail moth spread so rapidly that the infested area increased from about 26 square miles to 1,500 square miles. To-day, their parasites are being imported from Europe and Japan, and liberated in the United States in the hope that ultimately these natural means of control will render these insects no longer a conspicuous pest. This is a single instance out of many, showing the effects of this removal of the balance which Nature normally maintains, but with which man is constantly interfering. It can also be shown how insects affect commerce, prevent the colonization of countries, how they influence health, and how they may be responsible for the downfall of a people. No other group of animals bears so serious and important a relation to man himself, and any instruction, therefore, on insect life in which consideration is not given to these practical aspects of the question is as incomplete as a human being without hands.

In rural schools such knowledge is a *sine qua non*, and has been imparted in a number of such schools with which I am acquainted, but frequently owing to the want of the particular knowledge on the part of the teachers themselves such instruction is not given. The absence of instruction and suitable text books on the subject make this, to some extent, excusable, but if goods are demanded there is usually some attempt made to supply them, and if teachers will demand instruction of the nature I have endeavored to describe, efforts are sure to be made to provide the same. It is a question which rests with teachers, and to those these random remarks are made in the hope that a few may fall on good ground in addition to those which are destined to fall and be choked by the thorns of an over-crowded curriculum.

CONCHOLOGICAL NOTES.

Mr. Frank Collins Baker, of the Chicago Academy of Sciences, has issued his monograph on the *Lymnæidæ* of North and Middle America, recent and fossil. The volume is of 539 pages with 53 half-tone plates, and numerous illustrations in the text. The morphology of *Lymnæa* is fully dealt with, and a new and, I think, highly satisfactory classification arranged, based in the

main, as is proper, on anatomical characteristics. The meager descriptions of the earlier authors are amplified—in many cases—from a study of the types. In fact the type specimens were studied in all the cases in which they were accessible. Distinctions are clearly pointed out between forms which have hitherto been confounded; new species, as well as old, are accurately described and defined, and the exact geographic and geologic distribution of each carefully indicated. In the extended bibliographies which are given of every species and variety, mention is frequently made of the papers on conchology which appeared in the Transactions of the Club, THE OTTAWA NATURALIST, and the American Naturalist, from the pens of members of the Club, and the work of Heron, Taylor, Macoun, and others is often spoken of with appreciation. It may be said without exaggeration that Mr. Baker's volume is the most elaborate and satisfactory monograph on the Lymnæidæ ever published.

In Mr. Baker's monograph on Lymnæa, the *L. decollata* of our lists is classed under *Galba oronensis*, Baker. This determination is based, apparently, on shells collected by Heron. The shell found in the Little Chaudiere Rapids which also has been regarded as *decollata*, is considered by Mr. Baker to be a depauperate form of *Galba catascopium*, Say. This has long been my own conclusion, though Tryon thought otherwise. The Philadelphia conchologist was, however, not always accurate in his determination of Lymnæas. *L. lepida*, Gould, and *L. lanceata* Gould, placed in our list upon his authority should be dropped, at least until authentic specimens—if any exist here—are found.

Our *L. stagnalis* is not thought by Mr. Baker to be typical of the species, but as belonging properly to the variety *appressa*. This he divides into several sub-varieties. It would be of interest to represent on one plate the many varieties of *L. stagnalis appressa*, which occur near Ottawa, from the small form with a red lip band—found only in Portage Bay on the Hull side of the Ottawa below Tetreauville—to the monstrosities of the Rideau River, or the exquisite shells to be had on any day in late summer in the pond north of the Driveway where it diverges from Bank Street.

L.

The Editor would be grateful for short notes for publication from any member of the Club. Original observations are always of interest to our readers, whether they relate to plants or animals.

EXCURSIONS.

The excursion committee having decided to depart from the usual custom of holding excursions every Saturday afternoon during the spring and early summer, field meetings were arranged for every fortnight, each excursion to be devoted to the study of one particular subject. The first outing was held on Saturday, 29th April, at Mechanicsville, and was occupied with the study of the geology of the district along the bank of the Ottawa River. About a dozen enthusiastic workers attended under the leadership of Dr. P. E. Raymond, Mr. Jas. E. Narraway and Mr. W. A. Johnston. Dr. Raymond gave a general view of the structure of the rocks along the river bank by means of a diagram and pointed out where the most interesting geological features were to be found and the best places for collecting specimens. The party then spent two hours very profitably examining in detail the special features indicated by Dr. Raymond and in collecting specimens of fossils which were very abundant.

On the weathered surface of the Black River limestone many large cephalopods, mostly *Ormoceras tenuifilum* were seen, and Mr. W. A. Johnston was so fortunate as to find a specimen of a very rare cephalopod, *Nanno aulema*, a species previously unknown in the vicinity of Ottawa. One specimen of the coral, *Columnaria halli*, and very numerous brachiopods, were also obtained from the Black River; while the lighter coloured and harder limestones of the Lowville yielded the characteristic coral, *Tetradium cellulosum*, the trilobites, *Bathyurus spiniger* and *extans*, and numerous little black ostracods, or water fleas.

W. J. W.

The second excursion was held on Saturday afternoon, May 13th, to Beaver Meadow, Hull. The party met at 3 o'clock, and two pleasant hours were spent in the woods bordering the meadow. The chief object of the excursion was to observe and study briefly some of the plants of the district. Unfortunately only a small number of members attended the excursion, but those who were present thoroughly enjoyed the outing. Some collections of plants were made for pressing, and many determined by Leaders as the party proceeded from place to place. While no plants of particularly rare occurrence were seen, still a number were found of considerable interest to those present.

The most conspicuous objects seen on the trees (wild cherry) were the webs of the American Tent caterpillar. These larvæ are exceedingly numerous this spring and are doing much

damage all through the district. In one small clump of cherry trees 26 of these webs were counted. A few of the early spring butterflies were seen and specimens of other insects and some myriapods were collected.

A. G.

BOOK NOTICES.

FORTY-FIRST ANNUAL REPORT OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO, 1910: 124 pp., 23 figs., 2 pls. Published by the Ontario Department of Agriculture, Toronto, 1911.

Founded as this Society was "for the investigation of the characters and habits of insects, the improvement of entomological science and more specially its practical bearing on the agricultural and horticultural interests of the Province" these annual reports have assumed since their genesis a double function, namely, the recording of entomological investigations complete or in progress and of scientific data, and also the discussion of the economic bearing of these investigations and their practical application. While it would appear to the outsider to be confined to "the interests of the Province," this is far from being the case. Not only does it include in its membership entomologists from all of the provinces of Canada, but the activity of its members displays its really national character. There is naturally a distinct overweight in favour of the older provinces which, it is hoped, time will correct.

The present report does not differ materially from former ones, containing as it does much of interest and value to the amateur entomologist, the scientific worker and to the practical farmer, fruit-grower and forester. In the first thirty pages the insects of economic importance which have been noticeable during the year (1910) are described by various members of the Society, the report of the insects of the Ottawa district, by Mr. Arthur Gibson, will be of interest to members of the Ottawa Field-Naturalists' Club; Mr. L. Cæsar refers to the insects of the year in Ontario. "Beetles found about Foliage" is a pleasing account of sylvan entomology, by Mr. F. J. A. Morris, and Dr. Fyles' account of "The Pool" reveals that veteran naturalist and observer at his best. The attraction which entomology has for the botanist is shown by Mr. J. E. Howitt's observations on the Bean Maggot. Mr. Norman Criddle's observations on the migration of locusts in Manitoba are a useful addition to a knowledge of our native species. Prof. T. D. Jarvis makes two contributions, the first being a most useful paper on the Coccidæ

or Scale Insects of Canada, and the second an account of the Aleyrodidae ("White Fly") of Ontario. Prof. J. M. Swaine describes the life-histories and habits of several species of scolytids attacking the larch, his observations being a valuable addition to our all too meagre knowledge of the bionomics of the bark-beetles of Canada. He also describes the chief injurious insects of the year in eastern Quebec. Mr. Arthur Gibson makes some additional notes to his previous lists of insects attacking the basswood, or linden, and contributes "The Entomological Record for 1910," which is of no little value to entomologists in Canada. It is to be regretted that the report of Prof. James G. Needham's address on "The Role of Insects in Water Life" is in the form of a brief abstract. The subject is one not only of the greatest interest but of inestimable importance, especially in Canada where we have so much fresh-water life and where the conservation of our fresh-water fishes is in a large part dependent upon the amount of available food material which consists chiefly of fresh-water insects.

C. GORDON HEWITT.

THE HOME-LIFE OF A GOLDEN EAGLE, photographed and described by H. B. Macpherson, with thirty-two mounted plates. Second revised edition: London; Witherby & Co., 326 High Holborn, W.C. Published Price 5/- net.

The second edition of this delightful story of the home-life of a Golden Eagle, the King of Birds, has recently appeared. The spot chosen by the eagles was in a wild deer-forest situated in the heart of the Grampian range in Scotland. The nest was high up on a narrow ledge, and could only be reached with difficulty. A hiding place, close to the eyrie, was made and here the author was able to conceal himself and his cameras for hours at a time waiting for opportunities to photograph the birds and take notes of their habits. The 32 photographs secured are remarkably good and the running story told of the two parent birds and their young is most fascinating. The book should have a wide sale among nature lovers. It is beautifully printed, and the general "get up" excellent.

A. G.

The Committee on Public Health of the Commission of Conservation, have just issued a "Report on the Epidemic of Typhoid Fever occurring in the City of Ottawa, January 1st to March 19th, 1911." The report is an exhaustive one, covering 48 pp. It contains three maps and a number of full page photographic illustrations showing unsanitary conditions.

OBITUARY.

On May 23rd, 1911, Dr. Robert Wheelock Ells passed away at his home in this city, after a week's illness. In his death Canada loses one of her best known and ablest scientists, and the Ottawa Field-Naturalists' Club one of its most prominent members. Although failing health prevented his taking an active part in the Club's work for the past few years, he formerly gave it hearty support both in the lecture course and in the field excursions.

"The late Dr. Ells was descended from U.E.L. ancestors who came to Nova Scotia in 1761. He was born at Cornwallis, N.S., in 1845 and was educated at Horten Academy, at Acadia University and at McGill University from which he graduated in 1872 with first class honors and Logan gold medal in Geology and Natural History. He married in 1873, Miss Harriet N. Stevens, of Onslow, N.S. Joining the staff of the Canadian Geological Survey in 1872, he has since been constantly engaged in geological work in that branch of the service."

Dr. Ells was a fellow of the Royal Society of Canada, a fellow of the Geological Society of America, and a member of the Canadian Mining Institute. He was president of the Ottawa Field-Naturalists' Club for three successive years, beginning in 1898, and also president of the Literary and Scientific Society. Dr. Ells had also been president of the Ottawa Valley Graduates' Society of McGill University, and for a number of years past had held the position of representative fellow for the Province of Ontario on the corporation of McGill University. He has written many official reports on the geology and mineral resources of Canada, embracing almost every province from Nova Scotia to British Columbia. These reports were published by the Geological Survey of Canada, and were usually accompanied by illustrative maps, the surveys and data for their compilation being largely made and collected by himself.

In addition, he has written various papers on geology and kindred subjects which have appeared in THE OTTAWA NATURALIST, the Transactions of the Royal Society of Canada and other scientific publications. "He was perhaps best known in recent years for his work in connection with the problem of the utilization of the Oil Shales of Eastern Canada. It was indeed largely through his efforts that attention was first called to the great value of these deposits and his memoir published in 1910 is the standard work on this subject."

Personally, Dr. Ells was highly esteemed by all who had the pleasure of his acquaintance; he was a true friend and his kindly genial presence will be much missed by all his associates.

W. J. W.

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