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January, 1888.

THE
* OTTAWA NATURALIST *

VOLUME I. No. X.

The
TRANSACTIONS.

Of the

* Ottawa Field-Naturalists' Club *

(Organized March, 1879. Incorporated March, 1884.)

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OTTAWA, CANADA:

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PRESIDENT'S ADDRESS.

MR. R. B. WHITE.

*(Delivered, 8th Dec., 1887.)**Members of the Ottawa Field Naturalists' Club, Ladies and Gentlemen :*

I do not propose to-night to give you an elaborate paper on any special point of Natural History, but only to ask your attention for a short time to a brief address on a subject that should, at least, be interesting to all present: That of the Ottawa Field Naturalists' Club present, past and future, what we are doing, what we have done in the past and what I think we ought to aim at doing in the years to come. If you do not agree with my ideas of the work of the Club, I hope you will not scruple to say so, as there will be ample time for the fullest discussion, and on the right settlement of some of the points that I will refer to, the future prosperity and well being of the Club will very materially depend. It is with great pleasure that I can congratulate you on the continued and increasing prosperity of the Club. This is shown not only by the largely increased membership; a larger number having joined our ranks during the past season than during any previous year, but by what is of much more consequence the much greater percentage of the members who have taken an active part in the working of the Club. The fact too is particularly noticeable amongst those lately added to our number. A great encouragement to the council has been the sympathy shown in our efforts by those engaged in the important profession of teaching. These ladies and gentlemen recognizing the advantages offered from an educational point of view, have, many of them, cast in their lot with us, to the mutual benefit of all concerned. Original work has been vigorously prosecuted by the specialists in all the branches, and greater efforts have been made by the council to gain the interest of outsiders. The usual methods of procedure adopted in past years have been continued up to the present time, and the lectures and classes will be held during the present winter as heretofore.

At our first excursion the Club, for the seventh time, visited Kings Mountain, which seems to have lost none of its old time attractiveness for our members. In the past it has always proved the most popular excursion of each season, a record which this year it has added to by being the largest we ever had; no less than 119 members and friends taking part in it; nearly all of whom attempted the ascent of the mountain and no less than 75 gathered on the bare rock at the top, probably the largest number that was ever there at any one time. I do not wonder at the attraction it has for our members, as it would be hard to find a more delightful spot for a day's outing.

Our second excursion, on June 25th, was to the shores of Lake Deschenes, below Aylmer. This was a new locality and proved an excellent collecting ground for both Botanist and Entomologist, the flora being unusually abundant and showy, *Rosa blanda* and *Carolina* and the large showy flowers of our only wild lily, *L. Philadelphicum* being found in great profusion. Being in Aylmer in the end of August, I went over the same ground and was much surprised to find it a barren waste with hardly a flower to be found. The change was partly to be accounted for by the excessive dryness of the season, but chiefly, I think, by there being but a thin layer of soil over the limestone, holding sufficient moisture to sustain growth during the spring and early summer, but under the hot summer sun becoming too dry for ordinary vegetation, only such deep rooting plants as trees and grasses being able to maintain themselves. The great contrast between my two visits shows how careful the excursion committee have to be to select the best season for each locality.

The success of our third excursion, on July 2nd to Buckingham, was somewhat marred by the unpromising appearance of the weather. When the hour came for the boat to start only 24 members were on hand, not half of those we expected; however, for those who did go, it turned out a most enjoyable day, as the clouds moderated the heat and made the somewhat long walk through the woods from the wharf to our rendezvous at the railway bridge a most delightful one. Most of the party passed the day in the vicinity of the falls, but a few of the more enthusiastic botanists walked up the river along the slide and

were well repaid, as thanks to a never failing supply of water from the leaky slide, the vegetation was very rich and luxuriant. Among the trophies they brought back were some Indian turnip; with corms that almost rivaled the edible turnip in size, some of them being four inches in diameter. Our entomologists also were jubilant over the capture of many rare insects, amongst them being a female of the rare northern butterfly *Colias Interior*.

On August 13th we visited Britannia, and though nothing of marked interest was discovered a very enjoyable day was spent along the river bank. Above the station, near the lighthouse, were found large quantities of the handsome heads of the button-bush and the gorgeous spikes of the Cardinal flower.

On Sept. 17th was held the fifth and last excursion of the season to Kirk's Ferry and Falls on the Gatineau, four miles beyond Chelsea. The perfect weather, charming drive, and the many attractions of the locality visited all contributed to make it one of the most successful excursions ever held by the Club, and many wishes were expressed that the committee would hold our first excursion next season to the same place. It being our first visit our ever active botanists were diligent in searching for new species, and several additions were made to our list, the most notable being a new blueberry (*V. coespitosum*), a golden rod (*Solidago arguta*) and the curious grass (*Andropogon scoparius*). It was also an unusually interesting day for our Mineralogists, for in that great mineral reservoir the Laurentian formation, Phosphate, Plumbago, Mica, Iron Pyrites, Hornblende, &c., were abundant, especially in the cliffs along the river banks.

The sub-excursions, at which a large proportion of our work is done, have been more numerous and better attended than in past years. From the first week in May till late in the fall, when the weather permitted, these working parties, of which there were 21, left the Post Office at 2 P.M. every Saturday in charge of one or more of the leaders for convenient places in the vicinity of the city; some of them rivaling our general excursions in the numbers that attended.

In the beginning of the season I suggested to the leaders that it would add greatly to the interest and value of these tramps if they

would give elementary lectures at each of them similar in character to those we have always had at the general excursions. My thanks are due to the leaders, particularly to Messrs. Fletcher, Harrington and Ami, for the able and efficient manner in which my suggestion was carried out. At nearly every outing simple elementary lectures were given on the Geological formation, plants and insects of the districts visited, in such a style as to be interesting and instructive not only to the student of those branches, but to every one present, no matter how slight their knowledge might be of Natural History. That a great additional interest was taken in these excursions, on account of the addresses, was evident from the improved attendance and the anxiety shown by those present to be at the rendezvous in time to hear the leaders, and by the manifest interest taken in their remarks.

The council of last year recommended to their successors that instead of issuing our transactions in a yearly part, which rarely appeared before the following winter, we should publish a monthly magazine under the name of the "Ottawa Naturalist." We have carried out their recommendation, and I think our little paper has been received with general favor by our members. Most of the papers and reports read at last winter's Soirées have appeared in it, and the next number will contain the last of them. We will now be able to print our papers shortly after they are read instead of waiting eight or ten months as in the past, when, as in many cases, they had ceased to be of interest. Another great advantage of a monthly publication is that we are able to give an official account of all our excursions during the month that is past and announcements of those for the following month, so that those members who are not able to take part in them are in a much better position to know what the Club is doing than by the old system. The last number issued (December) contains the programme of Soirées and afternoon Lectures for the present winter season, and you will, on referring to it, find that the meetings promise to be no less instructive and interesting than those of former years.

The number of our corresponding members remains the same as last year. Prof. Saunders, who has been in that position for several years, having been appointed Director to the Experimental Farm, and

taken up his residence here, becomes an active member. He will be a great acquisition to our Entomologists, who, though our most active and energetic members are few in numbers. Miss Ormerod, who has been chosen by the council to fill the vacancy, is the well known English Economic Entomologist. The Club is indebted to her for many favors in the shape of books and reports on Economic Entomology, all of them of great value.

I have now given you a brief sketch of what we have done during the past season, and it may not be amiss here to look back at what has been accomplished since our organization eight years ago. Through the wisdom of the first council a printed record has been carefully kept of all our transactions since the beginning, and when the question is asked, "what have you done?" we are now in the position to show from our volumes of transactions an unconsiderable amount of good solid work.

I have had the Transactions issued during the past eight years bound in one volume, which I now show to you. It is a goodly volume and contains a satisfactory record of the work of the Club. On examining the contents it will be seen that they are varied and interesting, and that every department of Natural History is treated of to a greater or less extent. I find that thirty-eight members of the Club have been contributors to the volume, and that it contains sixty-one Papers read at the Soirées, and also thirty-two Reports and eleven short papers or Notes.

As might be expected, Botany is found to head the list with nine papers; Entomology comes next in order with eight; Zoology, Mineralogy and Geology have each six; Conchology has three, and there are fifteen miscellaneous papers, among which are such as Mr. H. B. Small's on Museum Education, Sir James Grant's on the Brain, and Mr. W. D. LeSueur's on Design in Nature.

A valuable feature of the volume is the lists which it contains, such as those of Plants, Shells, Birds, Beetles, Fossils, etc.

But, important and valuable as our work undoubtedly has been in investigating and recording the results as shown by our transactions, there is another department of it which I think is of even greater

value, the educational work which we have accomplished. From the organization of the Club its Councils have recognized the importance of this phase of our work, and the number of active naturalists now connected with it shows that we have not labored in vain. Besides the elementary lectures at excursions, to which I have already referred, an important factor in our educational efforts has been our course of afternoon classes, these originating in a Botany class, conducted by Mr. Fletcher for three winters, developed into our Monday afternoon course of elementary lectures in all the leading departments of Natural History. These lectures are intended to be simply expositions of the main facts and principles of the subjects treated of, given in such a manner as to be understood by the merest novice and to be interesting to those further advanced, as is evident from the fact that many of our leading Naturalists make a point of always being present. The Council are pleased to see that these meetings are steadily growing in popularity, though still nothing like as well attended as they ought to be, considering how great are the advantages offered to the student, and all perfectly free of charge, open to all, young or old, member or non-member of the Club. I am sure if it was generally known that such an admirable course of instruction in these subjects was open to all who chose to avail themselves of it this room would not hold our audiences.

In the same line were two courses of lessons given in Central School West with special excursions in connection with them conducted by the botanical leaders; by these and in every other way that seemed open to them the Councils have endeavored to cultivate a love for the study of Natural History, and upon the whole we have every reason to be gratified with the measure of success that has attended their efforts.

The foregoing being a brief account of what the Club has done and is doing, the question arises, what shall we do in the future, shall we go on in the same paths, endeavoring to perfect our work in the lines laid down in our rules, keeping it a strictly local club, or shall we, as some of our members, and some outsiders, have advocated, enlarge our bounds and convert our club into a general Natural History

Society? The principal reason given for this change is the following : It is said that Ottawa being the seat of the Geological Survey and Experimental Farm, we could take advantage of the labors of members of these institutions, which we cannot do to such a large extent if we limit our lectures to a record of local work.

I do not recommend the change though there is something to be said in its favor.

It seems to me that some change in the work of the Club is called for. We have pretty well accomplished our task of investigating and recording the results ; the small additions that have been made to our lists of late years show that not much now remains to be done, the average yearly addition to our plant list for the last five years is under a dozen. Our list of shells is fairly complete. We have only published one list of insects, the Coleoptera, but our Entomologists have the material for compiling lists of the other orders whenever we are ready to publish them. Our Geological lists are not quite so complete, but this work is of course done with special facilities by the Geological Survey.

Our greatest want in that line is in the Zoological branch, so far very little work has been done in that department. Next to nothing is known by our members of the common wild animals and reptiles of this locality, making it a fertile field for study and investigation, the only work that has so far been done being Mr. Lett's admirable series of papers on Ducks, Deer, the Otter, Black Bear and Puma, and Mr. Small's capital paper on "Our Ottawa Fishes." This season we are to have Mr. Ballantyne's observations on "Our Squirrels," but a great deal remains to be done. Every year our animals are becoming scarcer, and papers on the mammals or reptiles of the district would be interesting and valuable.

In the other departments though I have spoken of our work as being nearly finished it is only so as to collectors, there is still an immense field open to the Botanist and Entomologist in working out the life histories of the objects of his study, in the latter branch a good deal has been done, and our local Entomologists have done their share, but in botany there is ample scope for all our workers for many years to come.

As an example I might refer to the discussion on *Monotropa* and *Comandra* last winter and to the results arising from the questions then considered. Many other doubtful points call for further study. How little we know about the way in which our common wild flowers are fertilized; we know in a general way which are fertilized by wind and which by insects, but the particular agents that perform the work for each species are known in very few instances.

Even in such an apparently simple matter as the circulation of sap there is a great deal of uncertainty, and there is reason to believe that the theory given in the text books requires revision. Many other points are as vague, but enough has been said to show that in the department of Botany there is ample room for all our energies.

But as I mentioned before, important as our work as collectors and investigators undoubtedly is, I think it second to our educational functions. I have already given you a brief sketch of what we have done in that way, and it seems extraordinary that so few have taken advantage of the opportunities we have offered them. We have had not only to put the means of instruction before people, but have had to persuade them to take advantage of it. I have even heard parents say that they did not want their children to be bothered with learning even the few branches of Natural History that have been taught in our Public Schools, and this in the face of the enormous benefits which are acknowledged by all to have been derived from scientific investigations. It is not too much to say that the almost phenomenal strides which have been made in the progress of the world during the past century are due entirely to the development of scientific knowledge.

Having said so much this evening about our desire to develop the educational advantages of the study of Natural History, it may naturally be asked what are the advantages offered in this line by association with such an organization as our Club? I would answer there are certain direct advantages of a special educational value. First amongst these may be mentioned the inculcation of methodical habits of thought by which all discoveries must be examined. The results of each examination must then be carefully recorded in a neat and systematic manner ready for reference at any minute on some

future occasion. And much more so is this the case when original descriptions or discoveries have to be recorded for the use of others. A concise style and an accurate use of exact words are then absolutely necessary, and by so much as this is acquired to that extent will the work of any student be useful to science. A necessary part of thorough investigation in any branch of Natural History is the formation of a collection by which specimens are always on hand for examination, and in no way are the principles I have alluded to better exemplified. In the very collecting of the material the faculty of observation is cultivated and developed, the power to discriminate between species and to appreciate minute differences is attained.

The specimens when identified must then be carefully and neatly arranged and classified. Now all these are exercises of great use in properly training a mind to methods of thought which can be easily applied in any vocation of life when and wherever required. And it is not necessary nor even advisable to carry any of these studies (when used as a training for the mind) to a great length, we cannot all be Darwins or Lubbocks or Grays—no, the very elements of any branch of science are sufficient as the means for the practice of this intellectual training.

But in addition to these direct advantages there are also some of a more general nature to which, for a moment or two longer, I will draw your attention.

As the great aim in life of all human beings is the pursuit of happiness, I would mention first the pleasure it adds to life. No one who is not acquainted with the common objects of the woods and fields can conceive the keen delight experienced by a naturalist, when after the long imprisonment of our tedious winter, he is able again to go forth into the fields to look for the first appearance of our lovely spring flowers, to see the bursting of the buds and to listen to the call notes of the first birds, sweet harbingers of the happy summer time to come. To such a one all these are old friends, and the pleasure of greeting them year by year as they show their faces with beauty always fresh and new is not less than that experienced when we meet human friends from whom we have been separated for a long time, but with whom,

unfortunately, beauty gradually fades without a hope of renewal. Nor is this pleasure a selfish one for the Naturalist alone, it is enjoyed to a less but an appreciable extent by all those who associate with him. It was only a day or two ago that a member of our own Club bore testimony to this, in excusing himself for not taking up a special study: "I cannot find time for that, but I always attend the Club excursions when possible, simply for the enjoyment and benefit which I derive from going into the country with you." This naturally leads us to another advantage, namely, the benefit to health; and on this point I can speak from experience. For those who are confined indoors or to a desk by business, I do not think it is possible to exaggerate the value of a love for a study which impels them to leave the vitiated atmosphere of the city, and go far afield to seek their recreation out of doors and thus to breath the pure air of the woods, the fields and the mountain side. And again there is another feature about these studies which is no small advantage, the giving a knowledge of the natural beauties of the place we live in. In a world filled with beauty and in which, in fact, *everything* when properly examined is beautiful, it is by no means uncommon to hear thoughtless people say, wherever they may be, "there are no pretty walks or drives here;" to such I would say: "Are there any Naturalists in your locality? if so, ask them to show you, and then, I think, you will alter your opinion." I am led to mention this from the frequency of the remark, especially from new members when joining in an excursion, "I had no idea that there were so many pretty places about Ottawa."

SOIREES.

FIRST.—The opening meeting of the Winter Course for the year 1887-88 was held on Thursday, the 8th December, in the Museum of the Ottawa Literary and Scientific Society, when the President, Mr. R. B. Whyte, delivered his address, which is printed in this number, and which was listened to with much interest by the audience. On its conclusion Prof. Macoun, who occupied the chair, invited a full discussion of the suggestions and statements contained in the address. Mr. Fletcher thought that it was very necessary to carefully consider the past history of the Club, before attempting any change in its plan of operations. He was pleased to see so many teachers, and especially ladies, interesting themselves in the work of the Club, for if the future work was to be useful there was no better way to secure this end than by gaining the support of the teachers. Mr. Ami did not think that it was advisable at present to attempt an extension of the work, or a widening of the sphere of labour. Dr. Wicksteed suggested that desirable contributions to the season's programme would be papers on the city drinking-water, and the reported discovery of natural gas at Eastman's Springs. Mr. Fletcher, with reference to the suggested extension of the operations of the Club, considered that it was a question of such vital importance as to merit a most ample discussion, and one not to be rashly decided. There was still plenty of material unstudied in this vicinity, and requiring examination and description. At all the Excursions abundance of specimens had been found of great interest. Prof. Macoun said that about thirty years ago the late Mr. Billings had started the *Canadian Geologist and Naturalist*, a journal which still continues to lend its aid to science. Although the Club had been working for eight years, there was no scarcity of material to investigate nor could it be exhausted for many years to come, yet he was strongly of opinion that much would be gained by making the Club the nucleus, so to speak, of a general Natural History Society that would invite to it workers in all sections of the Dominion, and benefit by their labours. Under the present Constitution, whereby only papers on local subjects were invited, it was not possible for members whose duties carried them far afield, as for example the Geological Survey Staff, to

contribute any reports of their investigations. Mr. Ballantyne was in favour of some such widening of the plan of work, as would give interest to a greater number, and thought that much of value was at present lost by the limit set to the subject matter of papers. Dr. Baptie desired to draw attention to the value that records made in one department of science might have for workers in another department, apparently in no way connected therewith. As an instance he might state that he had been much interested in certain observations made by our entomologists last autumn. M. Guérard, a French author of repute, supposes the unusual prevalence—epidemic prevalence—of fevers in Europe, at certain periods, is due to the transportation of germs by atmospheric currents from the continent of America. A curious co-incidence bearing upon the view that certain fever germs may be conveyed by the wind to considerable distances is that just before the marked outbreak of fever, Mr. Harrington found large numbers of the cotton moth in Ottawa, October 9th. Their home is in the South. How came they here? By air currents—it is believed. If air currents brought the moths from the malarious South, might not the fever germs have been brought also? Those who entertain views akin to that of Mr. Guérard may find in this fact, brought to light by the Entomologists of our Club, a confirmation of their opinion, and especially so if the Meteorologists of the Club can show that storms, originating over the Gulf of Mexico and passing up the valley of the Mississippi, rarely, if ever, get beyond the valley of the Ottawa. A vote of thanks having been tendered to the President, he made a few remarks in acknowledgment thereof, stating that in his opinion papers from workers outside the present limits assigned by the Club would be of value to it, provided they did not in any way interfere, by creating additional work for the Council, with educational objects.

—————:o:—————

NEW MEMBERS,—36. William A. D. Lees. 37 Miss Gertrude Harmer. 38. Miss May L. Grist. 39. Miss Marion J. Whyte.

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