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April, 1887.

THE  
OTTAWA NATURALIST.

VOLUME I. No. I.

The  
TRANSACTIONS.

Of the  
Ottawa Field-Naturalists' Club.

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

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OTTAWA, CANADA:

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VOL. I.

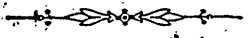
1888.

THE  
OTTAWA NATURALIST.

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THE  
TRANSACTIONS  
OF THE  
OTTAWA FIELD-NATURALISTS' CLUB.  
VOL. ~~I~~ I

*(Organized March 1879; Incorporated March 1884.)*



OTTAWA:  
THE CITIZEN PRINTING AND PUBLISHING CO., 31 METCALFE STREET.  
1887.



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HIS EXCELLENCY THE MARQUIS OF LANSDOWNE,  
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Librarian :  
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Committee :  
Dr. H. B. SMALL, | H. M. AMI, | Dr. GEO. BAPTIE.

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*Excursions*—T. J. MACLAUGHLIN, H. M. AMI, DR. BAPTIE.

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*Botany*—J. FLETCHER, DR. SMALL, DR. BAPTIE.

*Conchology*—F. R. LATCHFORD, H. B. SMALL.

*Entomology*—W. H. HARRINGTON, J. FLETCHER, T. J. MACLAUGHLIN.

*Ornithology*—G. R. WHITE, PROF. MACOUN.

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W. H. HARRINGTON.

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 Scott, Miss Lillian.  
 Scott, R. D'Arcy.  
 Scott, Wallace, C.  
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 Smith, W. H.  
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 White, Geo. R.  
 White, *Lieut.-Col.* Wm.  
 White, W. R. (Pembroke.)  
 Whiteaves, J. F., *F.G.S.*, *F.R.S.C.*  
 Whyte, Miss Isabella.  
 Whyte, R. B.

Whyte, Mrs. R. B.	Wright, W. R.
Wicksteed, R. J., <i>B.C.L., LL.D.</i>	Young, Rev. C. J., <i>M.A.</i> (Renfrew).
Willimott, Chas. W.	Young, James.
Woods, Prof. S., <i>M.A.</i>	

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### CORRESPONDING MEMBERS :

ANDERSON, REV. DUNCAN, *M.A.*, Spruce Cliff, Levis, Que.  
 EDWARDS, HENRY, 185 East 116th Street, New York, U.S.  
 HILL, Albert J., *C.E.*, Moody, B.C.  
 MERRIAM, DR. C. HART, Locust Grove, N. Y., U.S.  
 ORMEROD, MISS E. A., Dunster Lodge, near Isleworth, England.  
 PROVANCHER, ABBÉ, Cap Rouge, Que.  
 SAUNDERS, PROF. WM., *F.R.S.C., F.L.S.*, London, Ont.  
 SMITH, JOHN B., National Museum, Washington, U.S.

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### CONSTITUTION.

1. *Name and Object.*—This Club shall be called the Ottawa Field-Naturalists' Club, and its object shall be the study of the Natural History of this locality.

2. *Officers.*—The Officers of the Club shall consist of a President, first and second Vice-Presidents, a Secretary, a Treasurer, and a Librarian, who, together with three other members of the Club, shall form a Council, all of whom shall be elected annually, and shall be eligible for re-election, and who shall have the management of all the business of the Club. In the event of any vacancy occurring in the Council during the year the same may be filled by the election of a successor at any of its regular meetings.

3. *Auditors.*—There shall also be two Auditors elected annually to examine the Treasurer's accounts for the following year and report thereon at the next annual meeting.

4. *President and Vice-Presidents.*—The President shall direct all the business of the Club, and preside at all meetings of the Club and



Council; his duties, in the event of his absence, devolving on the Vice-Presidents in their order.

5.—*Secretary.*—The Secretary shall give previous notice to each member of the Club of every meeting of the Club, and to each member of the Council of every meeting of the Council; shall make and keep a true record of the proceedings of all meetings of the Club and of the Council, have custody of the Constitution, By-laws and Records of the Club, and conduct its general correspondence.

6. *Treasurer.*—The Treasurer shall be charged with the collection and custody of the funds of the Club, and keep a regular account thereof, which shall always be open to the inspection of the Council. He shall also submit at each annual meeting a statement showing the financial condition of the Club.

7. *Librarian.*—The Librarian shall have charge of all publications of the Club and shall distribute the same under the direction of the Council. He shall also have the custody of all books and papers belonging to the Club, and shall supervise their circulation among the members.

8. *Council.*—The Council shall, as business may require, meet from time to time at the call of the President, or of any two officers; shall control all matters affecting the welfare of the Club, subject to this Constitution; shall have full control of the funds of the Club, and shall report its proceedings to the members at the Annual Meeting.

9. *Annual Meeting.*—The Annual Meeting of the Club shall be held on the third Tuesday in March, at which, in addition to other business, the Annual Report of the Council shall be read, and the Council and Auditors for the following year elected, by ballot after nomination, by a majority of the members present.

10. *Special Meetings.*—A Special General Meeting of the Club may be called by the Council; and shall be called on requisition of not less than ten members, specifying the business they wish brought before the meeting. The Council shall call the meeting within fourteen days from the receipt of the requisition, giving one week's notice. No other business shall be transacted than that mentioned in the notice.

11. *Conduct of Meetings.*—The presence of ten members shall be required to constitute any general meeting of the Club, and of three members to constitute a meeting of the Council. All meetings shall be conducted under such by-laws and rules of procedure as may from time to time be adopted.

12. *Proceedings.*—Excursions in Summer, and evening meetings and classes of instruction in Winter, shall be held, and the Transactions of the Club shall be periodically published; all arrangements for which shall be made by the Council.

13. *Members.*—Any lady or gentleman desiring to join the Club shall send a written application, signed by the applicant and endorsed by the recommendation of two members, to the Secretary, and if approved shall be elected at the next meeting of the Council. Members desiring to leave the Club must previously settle all dues and signify their intention in writing to the Secretary.

14. *Corresponding Members.*—The Council shall have the power of electing Corresponding Members, who shall be persons not residing in Ottawa or its immediate vicinity, but who may be desirous of promoting the objects of the Club. Corresponding members shall not be required to pay membership fees.

15. *Annual Fee.*—The annual membership fee shall be one dollar, payable in advance, due on the third Tuesday in March, and no member in arrears shall be entitled to any of the privileges of the Club. New members to pay the fee for the current year upon election. The payment of the annual fee to entitle a member to receive a copy of the Transactions, as published, and to admission to the Club Soirees without further charge.

16. *Amendments.*—This Constitution may not be changed or amended except by a special meeting of the Club called for that purpose, and by a two-third vote of the members present.

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## EDITORIAL ANNOUNCEMENT.

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THE OTTAWA NATURALIST is issued by the Ottawa Field-Naturalists' Club in continuation of its Transactions already published ; the second volume of which was completed by the number for 1885-1886. For eight years the Club has earnestly carried on the work for which it was organized—"The study of the Natural History of this locality." Nor has it confined itself to this rich and extensive field. It has gradually extended its influence, and, by excursions, classes and lectures, has sought to foster a love for Natural History, and a desire in all its members to investigate the marvellous realms of nature.

After careful consideration of suggested changes in the method of carrying on the Club's work, it has been decided that its value, not only to members but to scientific observers in other places, will be greatly increased by the issue of a portion of its Transactions each month. This will ensure an earlier publication of the papers prepared for its soirees, which is especially desirable when new species are described, and will keep the members more fully informed as to the progress of its work. The record of its proceedings will be made as complete as possible. To the papers and reports that have formerly appeared, will be added an account of each general meeting, soiree, class, excursion, sub-excursion, or other undertaking of the Club. This step will double the present size of our Transactions, and will necessarily entail a proportionate outlay. We must therefore have many new members. The Council will do all in its power, but the required increase in membership can only be secured by the active co-operation of every member of the Club. Especially will ladies be welcomed to our ranks, and every effort will be put forth to make the excursions and soirees pleasant as well as instructive. It is much regretted that up to the present time the lady members have, with a few exceptions, not taken an active part in the work of the Club. There are several branches of natural history, such as Botany, Entomology and Ornithology, which offer to them attractive fields for observation and experiment, and in which many ladies are doing most excellent work elsewhere.

The Club has endeavoured to impress the value of an acquaintance with the works of nature upon the teachers in our educational institu-

tion of all kinds, and upon those now being trained for these important positions. Every teacher would derive immeasurable delight and profit from such a knowledge, and those whose duties are performed outside the larger cities have great advantages in their closer proximity to inexhaustible and almost unexplored mines of scientific wealth. Teachers would do well to avail themselves of every opportunity of acquiring a knowledge of natural history so as to be able to communicate information whenever requested.

The time has come to renew our investigations in the field—to watch the return of the birds, the unfolding of leaf and flower, the reappearance of insects, the emerging of reptiles and other animals from their winter retirement. Notes of all these, and of similar occurrences should be carefully taken, and forwarded to the leaders who have been appointed in each branch to preserve and compile such records. It is particularly requested that the leaders of the Ornithological branch be kept informed as to the arrival and movements of our birds. These are now working northward to their breeding grounds and summer habitats; some to remain with us, others stopping merely to rest and feed before continuing their journey.

The Club has been requested by the American Ornithologists' Union to co-operate with it in obtaining information as to the migrations and breeding habits of all birds resident in or visiting this district, and to exert its influence in increasing the number of observers. The schedules and instructions furnished for making the desired records may be obtained on application to the United States Department of Agriculture, or through the Secretary of this Club.

It should be mentioned that this number of our magazine is necessarily filled with the reports of proceedings and other routine matter, and that the papers read before the Club during the past winter will be commenced in the next issue. Notice will then be given, by the leaders, of the sub-excursions to be held during the season, and of the first excursion if it has been arranged. Members can materially assist the Club by purchasing copies of the magazine, or of any monthly part thereof, to send to friends, or to persons interested in natural history pursuits.

## ANNUAL MEETING.

The ninth annual meeting of the Club was held on Tuesday, 15th March, 1887, in the Museum of the Ottawa Literary and Scientific Society, commencing at 4.30 p. m. The President, Prof. Macoun, occupied the chair, and the following members were present, including all the council:—R. B. Whyte, Prof. Woods, James Fletcher, T. J. MacLaughlin, F. R. Latchford, W. H. Harrington, Dr. Small, Rev. Prof. Marsan, W. P. Anderson, H. M. Ami, Dr. Baptie, E. B. Bell, Fred. Magee, R. Broadbent, J. Ballantyne, J. M. Macoun, John Stewart, W. R. Billings, Mrs. Reid, R. W. Ellis, E. R. Faribault, R. Chalmers, R. G. McConnell, W. McInnes, A. E. Barlow.

After the minutes had been read the Secretary presented the Annual Report of the Council, which is printed in this number, and which was adopted upon motion of Mr. Ballantyne and Mr. Anderson, after some discussion as to the proposed plan of issuing the Transactions in monthly parts, in which the following members also joined:—Dr. Small, Prof. Woods, Prof. Macoun, Mr. Fletcher and the Secretary. The Treasurer's statement (also printed in this number) showing that all expenses had been fully defrayed, including some payments for the previous year, was adopted on motion of Mr. Billings and Dr. Baptie. The Librarian reported that many valuable exchanges and donations had been received by him during the year, and that an additional book-case was required for their reception. On motion of Mr. Fletcher and Mr. R. B. Whyte the Council was instructed to make such provision as might be found necessary for their preservation. There being no further business to transact, Prof. Macoun announced that the election of officers would be held, and that, as retiring President, he desired to state that the out-going Council had been very attentive to their duties, and had each endeavoured to do all in his power to advance the interests of the Club. Mr. Broadbent and Mr. J. M. Macoun were appointed scrutineers, and the election proceeded, resulting in the choice of the following Council:—President, R. B. Whyte; 1st Vice-President, Prof. Macoun; 2nd Vice-President, Prof. Woods; Secretary, W. H. Harrington; Treasurer, J. Fletcher; Librarian, T. J. MacLaughlin; Committee, Dr. Small, H. M. Ami, Dr. Baptie. A vote of thanks, moved by Mr. Anderson and Mr. Bell, was passed to the retiring officers, and the meeting adjourned at six p. m.

## ANNUAL REPORT OF THE COUNCIL.

OFFICERS—1886-1887.

PRESIDENT.—Prof. John Macoun.

VICE-PRESIDENTS.—1st, R. B. Whyte; 2nd, Prof. S. Woods.

SECRETARY.—W. H. Harrington.

TREASURER.—T. J. MacLaughlin.

LIBRARIAN.—F. R. Latchford.

COMMITTEE.—Dr. Small, James Fletcher, Rev. Prof. Marsan.

*To the Members of the Ottawa Field-Naturalists' Club:—*

The Council has great pleasure in reporting that the condition of the Club is at present very satisfactory; that its work has been prosecuted with earnestness, and that valuable scientific discoveries have been made in every branch of Natural History to which attention has been given.

The number of new members added during the year was only fifteen, but it was more than sufficient to counter-balance the losses occasioned by removal of members from the city, resignations or other causes. The membership stands at the encouraging figure of 170.

Miss E. A. Ormerod, Entomologist to the Royal Agricultural Society, of England, has been elected a corresponding member of the Club. Her publications on economic entomology are known wherever an interest is taken in such subjects, and have gained for her a deservedly high reputation. This makes the number of Corresponding Members eight, but one of these we shall shortly be able to welcome to active membership, as Prof. Saunders comes to Ottawa to take charge of the Experimental Farm, established by the Dominion Government. His labours in connection with fruit growing, entomology, and kindred subjects are known to all of you, and the Club may confidently look forward to receiving material assistance from him in carrying on its investigations, while other benefits will undoubtedly arise from the establishment of the Experimental Farm in this neighbourhood.

Several pleasant and profitable excursions were held during the summer, and were well attended. The first was to King's Mountain on the 18th May, and although the morning was very unfavourable there were enough present to fill two vans, and the trip turned out quite a success. The second was to Buckingham on 3rd June, when, in addition to the usual proceedings, a visit was made to the phosphate mills, and the process of preparing this mineral for consumption was

examined. The third was to Eastman's Springs on 24th July, when some interesting collections were made in the Mer Bleue swamp, and surrounding neighbourhood, and the waters of the mineral springs duly examined and tested. The fourth was to Meech's Lake on 4th September, on which occasion Mrs. W. J. Tilley very kindly invited all those present to visit her cottage, beautifully situated at the head of the lake, where she hospitably entertained them.

Sub-excursions were held almost every Saturday afternoon, from the opening of spring until late in the autumn, and those who attended did not fail to be both interested and instructed in the various branches, especially in Geology, Botany and Entomology.

The Botanical class, conducted by Mr. R. B. Whyte, in the Central School West, was, upon the appearance of vegetation, practically instructed in the field, the lessons being continued into the month of June. Many children had thus an excellent opportunity of acquiring a first insight into some of the beauties and interesting problems of plant life.

A very agreeable conversation was given, on the evening of the 26th May, to the Fellows of the Royal Society, under the joint management of the Councils of the Club and of the Ottawa Literary and Scientific Society. Through the kindness of our Vice-President, Prof. Woods, it was held in the assembly rooms of the Ladies' College, and the teachers and pupils of the college added much to the pleasure of the evening by generous contributions of vocal and instrumental music. The guests were suitably received by Mr. R. B. Whyte, acting-President of the Club, and Mr. W. P. Anderson, President of the O. L. and S. S. An address of welcome was given by Prof. Woods, and there were also addresses by several of the Fellows of the Royal Society, including Dr. Wilson, Sir W. Dawson and Rev. Dr. Hamel.

The winter course of meetings consisted of six soirees and nine elementary lectures, or classes, as follows:—

*Soirées*.—January 13th, "President's Inaugural Address," Prof. Macoun. January 27th, "Our Ottawa Butterflies," Mr. Fletcher; Reports of Geological and Conchological Branches; "Note on Ottawa Salamanders," Mr. Litchford. February 10th, "The Development of the Mines of the Ottawa District," Mr. John Stewart; Report of the Entomological Branch; "Note on Flour and Grain Beetles," Mr. Harrington. February 24th, "The Great Ice Age and Subsequent Formations at Ottawa," Mr. H. M. Ami; Report of Botanical Branch, "Note on

the 'Maple Lung' as a Substitute for Yeast," Mr. John Stewart, March 3rd, "A Chemical View of the Metallic Minerals," Rev. Prof. Marsan; "Note on *Monotropa uniflora*," Dr. Baptie. March 10th, "The Puma or Mountain Lion," Mr. Lett; Report of Ornithological Branch; "Some New Species from the Trenton Formation," Mr. W. R. Billings; "Note on an Abnormal Specimen of *Calypto borealis*," Mr. Fletcher.

*Elementary Lectures.*—These were arranged to form, as far as possible, a consecutive course, while at the same time treating of as many branches as was found desirable. They were held every Monday afternoon, commencing January 17th, and ending 14th March. They were adapted especially for those entering upon the study of Natural History, but were instructive and interesting to all who were present. The subjects and lecturers were as follows:—"Insects Destructive to our Native Trees," Mr. Harrington; "Local Geology," Mr. H. M. Ami; "Our Introduced Weeds," and "Geographical Distribution of our Native Trees," Prof. Macoun; "How to Identify Minerals," Mr. Brumell; "The Forms of Leaves," and "The Forms of Flowers," Mr. R. B. Whyte; "Leaf-eating Insects," and "Flower Insects," Mr. Fletcher.

The Librarian's report will show you that many valuable publications continue to be received, principally in exchange for our Transactions.

A committee has been appointed to confer with the curator of the Museum of the O. L. and S. S., in regard to the specimens for which he may have accommodation. Some valuable specimens have been already promised to the Club to be placed in the Museum.

Transactions No. 7 (Vol. II., Part III.) have been printed and the volume is now completed. This part consists of 89 pages, and contains the valuable papers and reports read during the winter course of 1885-86. The two volumes contain in all 646 closely-printed pages, with eight plates descriptive of new species. They constitute a record of the Natural History of this locality, which is unapproached by any other in Canada, and which is probably equalled by few places on this continent.

The Council has, however, to express its regret that the publication of this number was unavoidably delayed, so that it was only ready for



distribution at the very close of the year. A similar apology was made last year by the retiring Council, with regard to the part published by them, and led to a lively discussion at the annual meeting as to the necessity of an earlier publication. Your Council was most anxious to carry out the wishes of the Club in this direction, but found it impossible to be more prompt than their predecessors. The question of future publication has, however, been carefully considered, and a scheme is now presented, which, if it meet with your approval, will ensure not only an earlier publication, but also a more complete record of the work of the Club, and bring it more prominently before the members and the public. It is proposed that publication shall be monthly, instead of annually, and there appears to be much in favour of this step, while the only objection seems to be the additional expense which may be involved. It is found that to publish a journal of 16 pages each month will cost about \$100 a year over the average cost of the last three numbers of the Transactions. This sum will be readily raised if each member will use his or her influence in bringing others into the Club, or by inducing them to become subscribers to the proposed journal.

The following are some of the advantages which will accrue from the suggested method of publishing:—The members receiving the numbers regularly will have the objects of the Club kept before them, and as reports of all meetings, excursions, sub-excursions, soirees and other proceedings will be printed, in addition to the papers and reports now published, they will be kept posted as to the work being performed, and will have their interest therein aroused and strengthened. This will more especially be the case with such members as do not reside in the city, or are prevented from attending the excursions and meetings. These have now to wait for at least several months before they receive the Transactions, and they have no regular means of learning anything further regarding the excursions and classes than the meagre synopsis which appears in the Annual Report of the Council. Information can also be regularly given as to proposed excursions, soirees, classes or other undertakings of the Club. Kindred societies with which we exchange will see that the Club is vigorous, and desirous of making its publications

as valuable to them as possible, and therefore, worthy of assistance and encouragement.

The Council suggests that the journal be issued on the first day of each month under the title of "The Ottawa Naturalist."

You will learn from the Treasurer's statement that the present financial condition of the Club is perhaps more satisfactory than at any former period, and that there remains a good balance over and above all expenses. The Council has endeavoured to limit the expenditure of the past year in order that there might be sufficient funds on hand to warrant the adoption of the publication scheme which has been presented. The Treasurer has succeeded in collecting a very large percentage of the subscriptions, and it is expected that the few who are still in arrears will take an early opportunity to increase the fund which will be so necessary for carrying on this important project.

In conclusion the Council reiterates its belief that the present condition of the Club is encouraging, and that its future prospects seem to indicate increased strength and progress.

Signed on behalf of the Council,

W. H. HARRINGTON,

*Secretary.*

MARCH 15th, 1887.

### TREASURER'S BALANCE SHEET.

*Dr.* The Treasurer in account with the Ottawa Field-Naturalists' Club, 1886-87. *Cr.*

RECEIPTS.		EXPENDITURES.	
To Balance from 1885-86.....	\$ 28 25	By Balance on Transactions No. 6, 1885-86.....	\$34 50
Membership fees, 1885-86.....	\$ 34 00	Plates for Transactions No. 6, 1885-86.....	15 00
Membership fees, 1886-87.....	137 00		\$ 49 50
	—————	Transactions No. 7, 1886-87..	90 00
	171 00	Excursion Expenses.....	33 65
Sale of Transactions.....	6 55	Soiree to Royal Society.....	9 00
Excursion Receipts.....	34 80	Stationery .....	4 65
Soiree to Royal Society.....	7 50	Postage.....	7 23
	—————	Miscellaneous Printing.....	19 15
	\$248 10	Balance on hand.....	34 92
			—————
			\$248 10

T. J. MacLAUGHLIN,

*Treasurer.*

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Myths and Marvels of Astronomy, by R. A. Proctor ..	2.50
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