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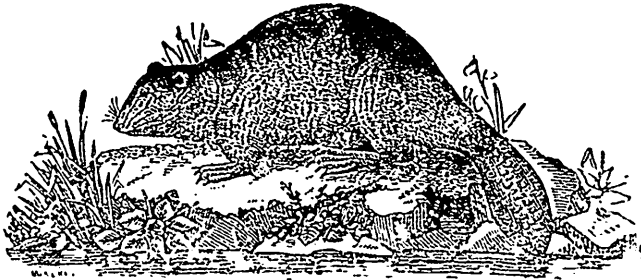
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April, 1893.

THE
* OTTAWA NATURALIST *

VOLUME VII. No. 1.



THE BEAVER (*Castor Canadensis*, Kuhl).

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THE
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TRANSACTIONS

OF THE

OTTAWA FIELD-NATURALISTS' CLUB.

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

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CONSTITUTION.
OF THE
OTTAWA FIELD NATURALISTS' CLUB.

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 six other members of the Club, of whom three shall be ladies, 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 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 Soirées, 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.



EDITORIAL.

At the Annual Meeting, held on Tuesday, March 21st, Dr. Geo. Dawson was re-elected President of the Club. During the past year his connection with the important Behring Sea Arbitration caused him to be absent from Ottawa for much of the time, but as a satisfactory termination of this question may soon be expected, his presence with us this year will be more assured, and his interest in the success of the Club is such that he will be able to materially promote its welfare. All the old officers were re-elected except three, who are replaced by Mr. W. F. Ferner, Miss A. Shenick and Miss A. M. Living. The attention of members is requested to the announcement on a previous page, of the Standing Committees, Editorial Staff and Leaders, whom the Council has appointed for the carrying on of the various departments of the Club's work. The former Editor, Mr. Fletcher, has been forced through pressure of work, and the distance from the city of his office, to resign his post, but he has promised his assistance to the incomer, and the Council has granted further aid by the appointment of Sub-Editors for the several branches of the scientific work of the Club. The start made in this direction during the past year, and the notes so published have proved acceptable to the members, but they should bear in mind that to make this section of the magazine really valuable and interesting, it will be necessary for each to make records and furnish notes to the sub-editors. The Council, in response to frequent enquiries, has authorized the re-printing of the Constitution, the only amendment to which, since its adoption at the Special Meeting, held March 28th, 1884, was made at the Annual Meeting in March, 1890, when the number of members in the Committee, of Council was enlarged from three to six, in order to specially provide for three ladies. Although the scope of the Club's work has been gradually widened to receive the benefits of investigations made by its members wherever they may be located, the special work for which it was organized must still merit the chief attention, and although much has been observed and recorded of the Natural History of Ottawa, there still remains vastly more to be done. The season for out-door work and study is here; the snow and ice are melting, the birds are arriving, the

sap is commencing to revivify vegetation, the insects are crawling from their hibernating crevices ; a few days more and all nature will feel the rapid throbs of a new season of growth and development. Let us take every advantage of this finest season of the year, and leave cabinet and book-study to be true Field-Naturalists.

ANNUAL REPORT OF THE COUNCIL, 1892-93.

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

In presenting this, the *fourteenth* Annual Report of the work of the Club, your Council has much pleasure in stating that continued interest exists, and a large amount of valuable work has been accomplished. The growing interest which the public of Ottawa is taking in the excursions and soireés of the Club is very manifest, judging from the attendance on these occasions, as also from requests for admission to our membership.

One of the first duties of your Council after election was to appoint the various standing committees and leaders in the various branches, to give aid and information to members, and keep records of the season's work. *Fourteen* Council meetings were held during the year at which the routine and executive work of the Club was carried on.

Twenty-nine new members were elected during the past year, whilst a few of our membership have gone, some out of the city to other portions of the country, while others we mourn. Amongst the latter are the following :—

REV. ABBÉ PROVANCHER, of Cap Rouge, Quebec. This zealous and relentless student of Botany and Entomology was elected a *Corresponding member* of our Club in 1886. For many years he edited and wrote extensively for "*Le Naturaliste Canadien*," published in Quebec. The Abbé was the author of several interesting volumes on Natural History in the Province of Quebec

WILLIAM PITTMAN LETT. For upwards of *nine* years our late lamented City Clerk was an active member of the Club, and occupied the post of Leader in Zoology on several occasions. No one who had the pleasure to listen to Mr. Lett's graphic descriptions of the life and habits of the higher mammalia of Ottawa will ever forget them.

His love for the chivalrous in the glowing scenes of a huntsman's career, together with his narratives of personal encounters with the larger game of the district, are still and will long be fresh in the memories of even the youngest one in our midst. Mr. Lett has contributed several important and reliable papers on his favorite subject, which were published in the "Transactions" of the Club.

W. H. C. SMITH, of the Geological Survey of Canada has also passed away from our sphere of activity. Prematurely, right in harness, engaged at his favourite work and study, Mr. Smith was taken away. He was to have given the Club an evening's entertainment on the "Geology of the Rainy Lake region" in which he had a number of interesting observations to record.

Besides being a Fellow of the Geological Society of America and Secretary of the Logan Club of Ottawa at the time of his death, Mr. Smith was a member of a number of societies and organizations, amongst which he was universally held in high repute.

R. J. TANNER, late Principal of one of our educational institutions, also passed away. His quiet and gentle unobtrusive manner, as well as his courtesy and other personal qualities, had won for him a very large circle of friends.

In his capacity as teacher and student of nature, Mr. Tanner took a deep interest in the welfare of the Club, whilst the city has lost in him a useful and worthy citizen.

The total membership of the Club to-day, amounts to two hundred and seventy-five.

Four general excursions were held during the year and it can safely be said that never heretofore have these been more successful or better patronized.

The opening of the Ottawa and Gatineau Valley Railway has done much to increase the interest and attendance at the excursions held, as the region traversed is beautiful and attractive to students of Botany, Geology, Entomology, &c.

Five Soirées were held during the winter, at which the average attendance was larger than in previous years.

Additions to the Library are coming in steadily from exchanges a home and abroad.

In his report, our energetic Librarian will give you a résumé of the duties devolving upon him and a list of the additions to our Library during the year.

The Treasurer is able to show a balance on hand of \$34.20 which is very creditable as we receive no outside help to enable us to publish the OTTAWA NATURALIST or "Transactions" of the Club. A new departure has been deemed advisable in the publication of the NATURALIST, and Sub-editors were appointed to give notes of observations made in the different branches of the Club's work. This method has met with general approval and satisfaction and added interest to the reading matter in the volume.

The NATURALIST has been published regularly every month, and as near the beginning of the month as possible. It is distributed to the members and exchange list free of charge, whilst a number of copies of the volumes of the Transactions were sold during the year, showing the esteem in which its pages are held by outsiders.

In conclusion, the Council hopes that the new year which will soon begin for the Club will be one marked by increased activity in all branches of the Club's work.

All of which is respectfully submitted,

HENRY M. AMI,

Secretary.

Ottawa, March 21st, 1893.

OTTAWA FIELD-NATURALISTS' CLUB.

TREASURER'S BALANCE SHEET FOR 1892-'93.

RECEIPTS.

Balance on hand from last year	\$	\$ 28 72
Subscriptions received—		
Arrears of previous years	52 00	
Subscriptions of 1892-93	143 40	
Paid in advance for 1893-94	50	
	-----	195 90
“Naturalists” sold by Librarian		25 30
Received for “Authors Extras”		19 25
“ “ Advertisements		25 50
Net proceeds of Excursions		36 24

	\$	<u>330 91</u>

EXPENDITURE.

Cost of Printing “Naturalist” Vol. VI	\$222 03	
Postage on same	27 13	
	-----	249 16
General Postage		12 86
“ Printing		1 90
Printing “Author’s Extras”		17 59
Gratuity to Janitor Normal School		5 00
Balance cost of binding periodicals of 1891		20
Appropriated for “ “ 1892		10 00
Balance on hand		34 20

	\$	<u>330 91</u>

A. G. KINGSTON,

OTTAWA, 21st March, 1893

Treasurer.

J. BALLANTYNE, }
WM. A. D. LEES. } Auditors.

REPORT OF THE ENTOMOLOGICAL BRANCH.

To the Council of the Ottawa Field Naturalists' Club :

The leaders of the Entomological Branch have much pleasure in reporting that satisfactory work was done during the past season. This consisted largely in the exact identification of species in the least worked and more difficult orders. This study has resulted in the addition of many species of beetles to the list of local species published in the Transactions of the Club for 1883-84. The advisability is therefore suggested of publishing at an early date a more complete record of the species found in this district. The occurrence of some of the rarer species has already been recorded in the OTTAWA NATURALIST under the head of Entomology, and it is proposed for the future to continue this method, instead of lengthening the Annual Reports.

A complete list of the Hemiptera was published in our June number, and additions will be recorded from time to time as identified.

In Lepidoptera a considerable amount of work has been done, particularly in the breeding of species. Some rare insects were obtained, of which mention may be made of *Chionobas jutta*, a rare satyrid, concerning the breeding of which at Ottawa some doubt has arisen. This butterfly was taken in the Mer Bleu on the 23rd June. On the same date a specimen of the rare little moth *Exyra Rowlandiana* was found at rest inside one of the cup-like leaves of the pitcher plant, *Saracenia purpurea*. Prof. Riley kindly identified the specimen; he stated that it is an uncommon insect. In the December number of the NATURALIST an account is published of some remarkable feather felting, resulting from the work of the carpet moth caterpillars which infested the contents of a pillow. A specimen of this felting is shown to-night. Some most interesting experiments have been carried out during the past year in transmitting by mail to England pupæ of the Camberwell Beauty butterfly. This journey on two occasions had the effect of producing the remarkable and extremely rare variety known as *Lintneri*, in varying degrees of definition. One particular specimen had all four wings different. A detailed account of this experiment will be published on a future occasion.

In the order Hymenoptera numerous additions have been made to collections, including some of great interest. A feature of the year has been the abundance of parasitic species. Mention may be made of two which did good service in destroying the eggs of two very injurious pests of the garden, viz., the imported current sawfly (*Nematus ribesii*) and the zebra caterpillar of the cabbage and other plants (*Mamestra picta*). An extended notice of these will be found in the forthcoming report of the Experimental Farms. A list of our Phytophagus Hymenoptera is now ready for publication when space permits in the NATURALIST

Several collecting expeditions were made during the summer, the most interesting of which was a visit of two of the leaders to Sudbury, where in company with Mr. J. D. Evans, a member of the club and an energetic entomologist, they spent three days collecting. Although the weather for a portion of the time was not propitious, a large number of rare and interesting forms were secured.

(Signed), W. H. HARRINGTON, }
 J. FLETCHER, } *Leaders.*
 T. J. MACLAUGHLIN, }

Jan. 19th, 1893.

BOOK NOTICE.

Report of Observations of Injurious Insects and Common Farm Pests, during the year 1892, with Methods of Prevention and Remedy.

The Sixteenth Annual Report, on the pests injurious to the British farmer and gardener, by Miss Eleanor A. Ormerod (a corresponding member of our Club), indicates that this talented lady is still indefatigably prosecuting the useful investigations which have made her famous in the field of economic entomology. The present report attains a length of 163 pages, and treats of a score or so of interesting subjects, of which a few only can be here indicated. The Sawfly, whose injuries to the apple were noted in the previous report, has been bred through its several stages and has proved to be *Hoplocampa (Teuthredo) testudinea*, Klug. This Sawfly inserts its egg in the embryo apple, when the fruit is setting, and the larva, when hatched, feeds in the interior of the fruit and destroys it. Several European sawflies have already reached Canada, and inflicted a great deal of injury, and it is

sincerely to be hoped that the above pest may not also be introduced. Some insects well known to American agriculturalists are treated of in relation to various plants. Among these are the Asparagus Beetle, which has been to some extent injurious in the Atlantic States, but which has not yet reached Canada. We have, however, the Cabbage Aphis, Corn Aphis, Hessian Fly, Mangold Leaf-blister Maggot, Onion Fly and Diamond-back Moth of the Turnip. Pea-weevils are mentioned, but these are not the *Bruchus pisi* which occurs here, but beetles which belong to the genus *Sitona* (true Curculionids,) and which attack the foliage. Several pages of the report are devoted to the serious attacks upon tomato of the *Heterodera radicola*, a small nematode worm (such are popularly known as eel-worms,) which causes the growth of knots, or galls, on the roots of this plant, and on others, such as the cucumber, potato, parsnip, etc. This pest appears to be especially injurious to the crops grown under glass, and has caused great loss to some of the extensive growers. Several insect enemies of the turnip and cabbage are noticed, and considerable space is given to a discussion of the disease known as Finger-and-toe, the cause of which is the Slime Fungus, *Plasmidiophora brassicæ*. This fungus is also injurious here, and has been treated by Mr. Fletcher in his reports, as the Club-root of the Cabbage. Miss Ormerod's report is conveniently arranged under appropriate headings, and in connection with each infestation the most suitable remedies are carefully considered. The mechanical part of the work is well in keeping with the contents, and, besides numerous wood cuts of the various pests, there are four excellent photo-gravure plates, illustrating the root diseases to which reference has been made.

W. H. H.



SUMMARY

— OF —

Canadian Mining Regulations.

NOTICE.

THE following is a summary of the Regulations with respect to the manner of recording claims for *Mineral Lands*, other than Coal Lands, and the conditions governing the purchase of the same.

Any person may explore vacant Dominion Lands not appropriated or reserved by Government for other purposes, and may search therein, either by surface or subterranean prospecting, for mineral deposits, with a view to obtaining a mining location for the same, but no mining location shall be granted until actual discovery has been made of the vein, lode or deposit of mineral or metal within the limits of the location of claim.

A location for mining, except for *Iron*, shall not be more than 1500 feet in length, nor more than 600 feet in breadth. A location for mining *Iron*, shall not exceed 160 acres in area.

On discovering a mineral deposit any person may obtain a mining location, upon marking out his location on the ground, in accordance with the regulations in that behalf, and filing with the Agent of Dominion Lands for the district, within sixty days from discovery, an affidavit in form prescribed by Mining Regulations, and paying at the same time an office fee of five dollars, which will entitle the person so recording his claim to enter into possession of the location applied for.

At any time before the expiration of five years from the date of recording his claim, the claimant may, upon filing proof with the Local Agent that he has expended \$500.00 in actual mining operations on the claim, by paying to the Local Agent therefor \$5 per acre cash and a further sum of \$50 to cover the cost of survey, obtain a patent for said claim as provided in the said Mining Regulations.

Copies of the Regulations may be obtained upon application to the Department of the Interior.

A. M. BURGESS,

Deputy of the Minister of the Interior.

DEPARTMENT OF THE INTERIOR,
Ottawa, Canada, December 1892.

}

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