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THE OTTAWA NATURALIST

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THE OTTAWA NATURALIST

VOL. XXXI.

APRIL, 1917.

No. 1.

REPORT OF THE OTTAWA FIELD-NATURALISTS' CLUB,
FOR THE YEAR ENDING MARCH 20, 1917.

GENERAL STATEMENT.

The Ottawa Field-Naturalists' Club has continued its activities in interpreting and diffusing information on natural science during 1916-1917. The British Government has just increased the appropriation for scientific work in Great Britain to more than five times its total previous appropriations, thus recognizing the importance of the work carried on by such organizations as the Ottawa Field-Naturalists' Club. These organizations are now vitally necessary since the scientific method has been proven to be the only way by which we may hope to solve such problems as the conservation and increase of our crops and forest products, our stock and fish, game, and fur resources, our mineral resources, and our public health.

This work of the Club has been accomplished chiefly by three means—the publication of *THE OTTAWA NATURALIST*, now starting its thirty-first year and volume, a series of field excursions, and a course of lectures.

Eleven members have resigned, but as thirty-two new members have been elected, there is a net gain of twenty-one members, the total membership now being three hundred and forty-six. The Club is organizing a campaign for increasing its membership.

His Excellency, the Duke of Devonshire, has expressed his interest in the Club by consenting to become its Patron.

The library of the Club, a large and valuable collection of nature books and periodicals, has been turned over to the Carnegie Library, Ottawa, which will catalogue it and make it available to the entire public. Accessions to the Club library will now be turned over to the Carnegie Library.

TRUST FUNDS.

A trust funds committee has been appointed to receive and administer additions to the trust fund of the Club.

THE OTTAWA NATURALIST.

THE OTTAWA NATURALIST, the official publication of the Club, has been issued under the continued editorship of Mr. Arthur Gibson. A fire which occurred in the office of the printers, The Rolla L. Crain Company, destroyed the entire November edition and all the engravings, but The Dadson-Merrill Press have since taken over the printing of the publication and are rapidly restoring the interrupted schedule. In order to interest a larger number of citizens the Council has decided to include in each issue items of popular and scientific interest, more particularly notes that give practical natural history information. An effort is being made to secure more articles of general interest without neglecting to supply that great need of science—a place of publication for its discoveries.

Among the more popular papers published during the year the following may be mentioned:

- The Formation of the Great Plains of Northwestern Canada.
By D. B. Dowling.
- The Use of Wild Plants as Food by Indians. By Tom Wilson.
- American Insect Galls. By E. P. Felt.
- Birds of Lake Onigamis Region, Que., and Algonquin Park, Ont.
By John M. Cooper.
- Notes on Some Ottawa District Plants. By W. H. Harrington.
- Notes on the Feeding Habits of Two Salamanders in Captivity.
By C. M. Sternberg.
- Concerning Some Ontario Crayfishes. By A. G. Huntsman.
- My Bird Houses. By C. L. Patch.
- Are Our Forests Vanishing. By R. H. Campbell.
- The Barn Owl Nesting in Southwestern Ontario.
By W. E. Saunders.
- Sea Squirts. By E. E. Prince.
- The Sharp-shinned Hawk. By W. J. Brown.
- New Sphaeriidae, a family of bivalve Molluscs which are remarkably abundant near Ottawa, and form no small part of the food of many fishes and birds.
- Bird Notes. By F. C. Hennessey.

Various small notes on birds, butterflies, mushrooms and flowers were also published.

Among the more technical scientific papers may be mentioned:

- Some Notes on Fossil Collecting and on the Edrioasteroidea,
By G. H. Hudson.
- A Preliminary Paper on the Origin and Classification of Intraformational Conglomerates and Breccias. By R. M. Field.

Pacdeumias and the *Mesonacidae*, with description of a new species, having at least forty-four segments, from the Lower Cambrian of British Columbia. By L. D. Burling.

Comarocystites and *Caryocrinites*. By A. F. Foerste.

On *Cheneosaurus tolmanensis*, a new genus and species of Trachodont Dinosaur from the Edmonton Cretaceous of Alberta. By L. M. Lambe.

Notes on the Bottom Environment of the Marine Invertebrates of Western Nova Scotia. By E. M. Kindle.

EXCURSIONS.

The field excursions are advertised in the papers so as to be within the reach of everyone, not only Club members but the general public. The expense is slight, seldom more than street carfare. Scientific men, both members of the Club and others at the request of the Club, attend the excursions to direct interest and answer questions.

In the spring of 1916, five excursions were held according to the programme published in the April number of *THE OTTAWA NATURALIST*:

No. 1, May 6. Rockcliffe and the vicinity of McKay's Lake. Subject, Geology. Leader Dr. E. M. Kindle of the Geological Survey.

No. 2, May 13. Cache or Catfish Bay, west of Hull. General Zoology. Leaders: Mr. G. A. Millar of the Normal School, C. M. Sternberg, and F. W. Waugh.

No. 3, May 27. Fairy Lake and vicinity. Subject, Botany. Leader, F. W. Waugh.

No. 4, June 10. Aylmer Park and vicinity. Subject, General Zoology. Leaders: C. Patch, F. W. L. Sladen, and F. W. Waugh.

No. 5, June 17. The Experimental Farm. Subject, Horticulture. Leader, Mr. W. T. Macoun.

In addition to the usual series of spring excursions, the Club organized an autumn excursion to Fairy Lake on which botany was the centre of interest, special attention being paid to the different kinds of seeds. The excursion differed in this way from the usual spring flower study. The announcements for these excursions were made through the daily press and the attendance reached as high as thirty. An effort will be made during the coming season to lead more of the resident members of the Club to avail themselves of this interesting way of getting acquainted with the common things of Nature.

LECTURES.

The lectures are planned to represent all branches of natural science, and were given by scientists from several departments of the Government service. They develop an appreciation of the scientific

work of the Government, but are intended chiefly to increase a love for natural history and to lead to a greater use of scientific method and scientific facts in our every day life.

The following programme of illustrated lectures was carried out during the 1916-1917 season:

- Dec. 16, 1916—"A Journey Through Space." By Dr. J. S. Plaskett, Dominion Observatory, Ottawa.
- Jan. 9, 1917—"Are Our Forests Vanishing—What are we doing to Perpetuate Them?" By Mr. R. H. Campbell, Director of Forestry, Ottawa.
- Jan. 23, 1917—"Our Winter Birds." By Dr. M. Y. Williams, Geological Survey, Ottawa.
- Feb. 6, 1917—"The Animals of Arctic Canada." By Dr. R. M. Anderson, lately in charge of Southern Scientific party of Canadian Arctic Expedition.
- Feb. 20, 1917—"Fishes and the Fishing Industry." By Mr. Andrew Halkett, Naturalist, Naval Department, Ottawa.
- Mar. 6, 1917—"The Conservation of Wild Life in Canada." By Dr. C. Gordon Hewitt, Dominion Entomologist, Ottawa.
- Mar. 20, 1917—Presidential Address: "Recent Archaeological Work in Canada." By Mr. Harlan I. Smith, Geological Survey, Ottawa.

The first lecture was held at the Observatory and the members were given an opportunity to look through the telescope. All the others were held in the Ottawa Normal School. The address by Dr. J. S. Plaskett on "A Journey Through Space," was given before the People's Forum on the evening of February 25, and Dr. Plaskett then had an audience of nearly 1400 people, many times the number who heard him previously. The increased audience may be due partly to interest aroused by the press report of the previous lecture. However, our interest is in furthering the aims of the Club rather than the Club itself and we are glad that so many people had the opportunity of hearing one of our lectures.

Many members of the Club also gave lectures to public school, Collegiate, and Normal students, and to the Boy Scouts and Girl Guides.

Submitted on behalf of the Council,

L. D. BURLING,
Secretary.

TREASURER'S STATEMENT, 1916-17.

Receipts.

Balance from 1915-16	\$ 13.70
Membership fees:	
Arrears	\$ 57.00
1916-17	181.50
In advance	18.00
	<hr/>
	256.50
THE OTTAWA NATURALIST:	
Advertisements	\$84.30
Copies sold, one15
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	84.45
Authors Extras sold	28.43
Donation, Dr. H. M. Ami	10.00
Provincial Government Grant	200.00
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	\$593.08

Disbursements.

THE OTTAWA NATURALIST:	
Printing 8 Nos.	\$317.18
Illustrations	58.95
Printed Envelopes	24.70
Postage	16.49
Editor	50.00
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	\$467.32
Authors Extras	52.00
Lecture Expenses	18.72
Miscellaneous Printing, Stationery, etc.	13.20
Postage and Bank Exchange	24.01
Credit Balance	17.83
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	\$593.08

Examined and found correct.
 J. BALLANTYNE,
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G. LELACHEUR,
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PROGRAMME OF FIELD EXCURSIONS.

SPRING AND SUMMER SEASON, 1917.

The interest shown in the Saturday afternoon field excursions conducted by the Club during 1916 and preceding seasons has led to a still greater effort for 1917.

The primary purpose of the outings is to cultivate an acquaintance with the fauna and flora of the district surrounding Ottawa and thereby increase the general interest in natural science. Local specialists in various branches have always shown a readiness to assist and the present season will be no exception.

You can assist in the success of the excursions by attending and bringing your friends. Non-members will be cordially welcomed.

A programme for the autumn will be announced later.

- May 12—Geological; Mechanicsville to Britannia, along the Ottawa; place of meeting, the western end of Somerset street bridge; time 3.00 p.m.
- May 19—Zoological; Tetreauville to Hull, along the Ottawa; place of meeting, the station (suburban electric) at the Chateau Laurier at 2.30 p.m.
- May 26—Botanical; Gatineau Point to Hull; place of meeting, Rockcliffe, second stop past the tea-house (just opposite Gatineau Point); time, 2.30 p.m.
- June 2 (King's Birthday)—An all-day excursion has been planned for this date to Stittsville and vicinity; object, general nature study; place of meeting, Central Station at 9 o'clock a.m. (Train starts at 9.35). Mr. Hutton of the Geological Survey Photographic Department will furnish any assistance desired to those interested in photography. Bring cameras and lunch.
- June 9—Entomological (Insect life); the Experimental Farm; place of meeting, the station at the Farm; time, 3.00 p.m.
- June 16—Zoological (land, water and fossil molluscs); McKay's Lake, just east of Rockcliffe Park; place of meeting, the bridge opposite the lake; time, 3.00 p.m.
- June 23—Botanical (trees and shrubs); Aylmer Park and vicinity; place of meeting, the station at Chateau Laurier at 2.00 p.m.
- June 30—General nature study; Black Rapids, on the Rideau; place of meeting, the steamboat dock near the Central Station at 1.00 p.m. Bring your cameras.
-

LITTLE KNOWN MIDGE GALLS OF
CERTAIN COMPOSITES.

BY E. P. FELT, ALBANY, N. Y.

The writer published in 1911* a tabulation of American Midge Galls and since then a number of new ones have been discovered on plants which are likely hosts of additional species. It is the purpose of these notes to call attention to some interesting analogies and to point out promising lines of investigation.

The occurrence on the gum plant or tarweed, *Grindelia*, and on *Gutierrezia*, of the typical blackened, carbonaceous tissue so conspicuous in the oval black blister galls of the narrow-leaved goldenrod, is most interesting, especially as all three are produced by midges belonging to the genus *Asteromyia*. The first is the work of *Asteromyia grindeliae* Felt, the second of *A. gutierreziae* Ckll., and the third of the much better known *A. carbonifera* Felt. The gall of *A. gutierreziae* Felt differs from those of the other two species, in that it consists of slight enlargements of the slender stems instead of a development upon the leaf. Both *Grindelia* and *Gutierrezia* are known to support bud or flower-inhabiting species of *Rhopalomyia*. *Ericameria* also has its bud inhabitant, *Rhopalomyia ericameriae* Felt, which produces a small rosette bud gall, really aborted branchlets. It is very probable that the related and rather common *Sideranthus* supports one or more gall midges.

The various wormwoods or sage-brush of the western plains, *Artemisias*, support an interesting and presumably only partly known fauna. Two genera, *Diarthronomyia* and *Rhopalomyia* find very acceptable conditions on these plants, particularly the former, a genus which appears to confine itself largely to *Artemisia* and the related *Chrysanthemum*. In order to facilitate the discovery of new species on *Artemisia*, a tabulation of the known galls, including those of associated forms, is given below.

INSECT GALLS ON WORMWOOD OR SAGE-BRUSH ARTEMISIA.

ARTEMISIA CALIFORNICA.

Irregular, lobulate, woolly masses, apparently arising from lateral buds and frequently confluent, the individual galls with a diameter of about 4 mm. ----- *Diarthronomyia floccosa* Felt

Subconical, thin-walled, obliquely-set, brownish or reddish leaf galls with a length of 1.5 mm., and a diameter of .5 mm.

Diarthronomyia californica Felt

*Econon. En. Journ. 4:451-75.

ARTEMISIA CAUDATA.

Oval, woolly, apical or lateral bud galls with a diameter of 1 to 1.5 cm. and consisting of a series of oval cells, each with a length of about 2 mm. and with numerous long fibers. Woolly wormwood gall, *Rhopalomyia ?alticola* Ckll.

ARTEMISIA FORWOODII (?CANADENSIS).

Globular, woolly galls with a diameter of about 1 cm.

Woolly wormwood gall, *Rhopalomyia alticola* Ckll.

ARTEMISIA FRIGIDA.

Fusiform flower or leaf bud galls, length 4 mm., also occurs on *A. filifera* ----- *Rhopalomyia betheliana* Ckll.

ARTEMISIA GNAPHALODES.

Irregular, lobulate, polythalamous, white, pubescent gall, diameter 1 cm. ----- *Rhopalomyia gnaphalodis* Felt.

ARTEMISIA HETEROPHYLLA.

Ovate, thin-walled, oblique leaf galls, length 1 mm., also breeds in apparently normal flower buds. ----- *Diarthronomyia occidentalis* Felt.

ARTEMISIA SP. (WORMWOOD).

Deformed flower heads, length 10 mm., diameter 5 to 6 mm.

Wormwood flower midge, *Rhopalomyia coloradella* Ckll.

Bud galls. ----- presumably *Asphondylia artemisia* Felt.

A bud deformation of black, globose or densely crowded filaments ----- *Eriophyes* sp.

Ovate masses of linear, modified leaves occurring on the branchlets, length of mass 1.5 cm., diameter 5 to 7 cm. ----- *Eriophyes* sp.

Subconical, short-wooled, yellowish gray, axillary bud gall, length 2 cm., diameter 1 cm. ----- *Trypetid*

Globose, axillary, woolly bud gall, diameter 7 to 10 mm., the hairs grayish white, short and thick ----- *Trypetid*

ARTEMISIA TRIDENTATA (SAGE-BRUSH).

Oval, bud-like flower gall the size of a pea.

Rhopalomyia tridentatae Rubs.

Ovate, hard, thick-walled, yellowish brown bud gall, length 1.5 cm., diameter .8 cm. ----- *Trypetid*.

Flask-shaped or subconical leaf gall, length 4 mm., diameter 2 mm. ----- Wormwood flask gall, *Rhopalomyia ampullaria* Felt.

Oval, grayish or almost black, solitary or clustered gall on the under side of the leaves, length 1.5 cm.

Diarthronomyia occidentalis Felt.

Globose, variable, monothalamous or polythalamous leaf, bud or rosette galls or a bladdery gall arising from the leaf, pubescence variable, dimensions 3 to 15 mm. ----- *Diarthronomyia artemisia* Felt.

Subglobular, brown, spongy apical gall, diameter 1.8 cm., possibly identical with the preceding ----- *Cecidomyia* sp.

NOTES.

This number of THE OTTAWA NATURALIST begins a new club year and dues are, therefore, now payable. If all members will mail the dollar membership fee to the Treasurer, Mr. J. R. Dymond, Seed Branch, Dept. Agriculture, Ottawa, it will save his time and a considerable amount of postage.

Dr. John Stanley Plaskett, formerly in charge of the department of astrophysics in the Dominion Observatory at Ottawa, has been appointed director of the Dominion Astrophysical Observatory, which is being established at Victoria. The principal instrument of the observatory is a 72-inch reflecting telescope, the mounting of which is in place, and the mirror is nearing completion at the shops of the Brashear Company.

The U. S. Government makes larger appropriations for scientific research than any other nation, and the money has on the whole been used to advantage. The fact that the work there is mainly economic is not, altogether, a drawback. The difficulty has been that better provision was made for routine work than for exceptional performance. The present emergency has led to further large appropriations for scientific research, and we may hope that the truth expressed in the President's words "Preparation for peace is the best preparation for war" will lead to still greater efforts to promote science for the national welfare.

A fund of \$25,000 has been raised as a nucleus for the purposes of organizing a Museum of Natural History in the city of Portland, Oregon. A similar movement has been started in Spokane, Washington, and it is hoped that the city of Spokane will in the near future have a museum specially devoted to the American Indians of that region.

Sir Alfred Keogh, director-general of the British army medical service, presiding at a lecture at the Royal Institute of Public Health on February 14, is reported in Nature to have stated that in France at that moment there were only five cases of enteric fever and eighteen cases of paratyphoid fever, with seventy or eighty doubtful cases. He attributed this result to inoculation, the general good health of the army, to good food, and in addition, to careful sanitation. The health of the army at all fronts was said to be better than the ordinary health of the army in peace-time.

The Dominion Government, by order in council dated December 28, 1916, appointed an interdepartmental advisory board on wild life protection for the purpose of formulating plans regarding the protection and use of the wild life—by which term is meant the furbearing and big game mammals, the wild fowl and other animal life—of the northwestern territories, and of advising in the administration of the Northwest Game Act and of the legislation under the recently ratified international treaty for the protection of migratory birds in Canada and the United States, and generally, for the purpose of advising it on questions relating to the protection of and use of wild life in Canada. The advisory board is constituted as follows: James White, Assistant to the Chairman of the Commission of Conservation; D. C. Scott, Deputy Superintendent General of Indian Affairs; Dr. C. Gordon Hewitt, Dominion Entomologist; Dr. R. M. Anderson, Geological Survey; J. B. Harkin, Commissioner of Dominion Parks. Mr. James White is chairman and Dr. Hewitt is secretary of the Board; Mr. White and Dr. Hewitt are also representatives of the government on the permanent consultative commission for the international protection of nature.

BRITISH GOVERNMENT GRANT FOR SCIENTIFIC RESEARCH.—

When the establishment of a separate department of scientific and industrial research was announced in December last, Lord Crewe stated that the Chancellor of the Exchequer was prepared to advise the government to devote a sufficient sum to cover operations during the next five years on a scale which would provide four, or perhaps five, times as much for coöperative industrial research as had been spent for the whole purposes of research hitherto. We learn from *Nature* that the civil service estimates just issued include the sum of £1, 038,050 to the department of scientific and industrial research, being a net increase of £998,050 upon last year's amount.

A circular letter giving 39 generic names in Protozoa, Coelenterata, Trematoda, Cestoda, Cirripedia, Tunicata and Pisces, chiefly Linnaean, which have been proposed for inclusion in the Official List of Zoological Names, has been mailed to the leading scientific institutions, colleges, laboratories, etc., in various countries; in addition 20 copies have been sent to each commissioner for distribution in his own country. A copy will be sent to any person sufficiently interested who will apply to Dr. C. W. Stiles, Secretary to International Commission on Zoological Nomenclature, U.S. National Museum, Washington, D. C.

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