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THE OTTAWA NATURALIST

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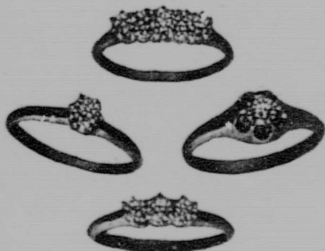
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THE OTTAWA NATURALIST

VOL. XXIII.

OTTAWA, APRIL, 1909

No. 1

THE REPORT OF THE COUNCIL OF THE OTTAWA FIELD-NATURALISTS' CLUB FOR THE YEAR ENDING MARCH 16TH, 1909.

MEMBERSHIP.

With the view of increasing the membership, a letter was prepared, outlining the work of the Club, and copies of this letter were sent to persons known to be interested in such work. During the year, 47 new members have been elected, making the present membership 321, composed of 313 Ordinary Members and 8 Corresponding Members. This represents a net gain of 30 for the year, and makes the present membership the largest in the history of the Club.

SOIRÉES.

Acting on the suggestion of Dr. J. F. White, Principal of the Normal School, the various scientific and literary societies prepared a joint lecture programme for the year 1908-1909. The object was to provide a series of lectures of somewhat popular interest to be given at intervals of two weeks in the Assembly Hall of the Normal School. The plan has been completely successful. There has been no clashing of dates as in former years, the various societies have been brought into closer relationship, and large audiences have marked the entire course.

The societies under whose auspices addresses have been given are: The Ottawa Field-Naturalists' Club, The Literary and Scientific Society, The Royal Astronomical Society, The Women's Art Association, The Women's Historical Association, The Dickens' Fellowship, McGill University Club, Queen's University Club, Toronto University Club, and The Normal School. Those who lectured under our auspices were Dr. A. P. Knight, of Queen's University, and Dr. Jas. Robertson, C.M.G., Principal of Macdonald College. Dr. Knight read an able paper on December 11th on the subject of "Water and Disease." Dr.

Robertson spoke on February 5th on "The Call of the Land," and by special request gave a twenty-minute talk on the work of Macdonald College. This meeting was graced by the presence of His Excellency the Governor-General, who moved the vote of thanks to the lecturer, which in turn was seconded by Hon. Sydney Fisher, Minister of Agriculture.

As in former years, the Soirées Committee prepared a programme of fortnightly meetings. It was their sad duty to make the first of these a Memorial Meeting for the late Dr. James Fletcher. Lt.-Col. Wm. White, C.M.G., the first president of the Club, acted as chairman, and tributes were paid to the memory of our lamented leader by Mr. A. E. Attwood, Lt.-Col. Wm. White, Dr. Wm. Saunders, Mr. W. H. Harrington, Mr. R. B. Whyte, Mr. Arthur Gibson, Prof. John Macoun, Dr. H. M. Ami, Prof. F. T. Shutt, Rev. C. G. Eifrig, Mr. E. R. Cameron, Mr. T. J. MacLaughlin, Mr. W. J. Topley and Dr. S. B. Sinclair. Verbatim reports of these tributes appear in the Fletcher Memorial Number of *The Ottawa Naturalist*.

On January 5th, Rev. C. G. Eifrig gave an address in the Normal School on "Our Canadian Birds." The lecture was illustrated with the Bickmore series of lantern slides on this subject, which were kindly lent by McGill University for this special lecture. Mr. Eifrig's address was rich in material gained by actual observation in the field, and his talk was followed with keen interest by an audience that completely filled the large Assembly Hall.

On January 19th, Mr. Thos. W. Sowter read a paper on "Algonquin and Huron Occupation of the Ottawa Valley." Mr. Sowter, who has done excellent research work in the district, presented three distinct sets of evidence to prove that the Hurons had occupied portions of the Ottawa Valley. The lecturer opened up a field that was new to most of the audience, and his paper was also a masterly literary effort. This paper is to be published in *The Ottawa Naturalist*.

Prof. R. W. Brock, Director of the Geological Survey, delivered "A Popular Address on Minerals" on February 16th. Prof. Brock's lecture was made specially interesting by means of his excellent use of a large number of specimens.

March 2nd was "Ladies' Night" on the programme, a pleasing innovation. Miss M. McKay Scott spoke on "Stories about Flowers and their Healing Powers," dealing particularly with the part flowers have played as symbols and emblems from the earliest times of the race. Miss Florence Burt followed with a paper on "Mimicry in Nature." Various interesting examples of

mimicry in the animal world were described and the underlying principles were dealt with in a skilful manner. Miss B. Gilbertson, the third speaker, told "How to Become a Field-Naturalist." Miss Gilbertson treated the question from a psychological standpoint, tracing clearly the development of the spirit that produces the field-naturalist.

The final lecture of the course, "The Weather" is to be delivered this evening by Mr. A. McNeill, one of the leaders of the Meteorological Branch.

Under the joint auspices of the Ottawa Field-Naturalists' Club and the Ottawa Teachers' Association, an address on Forestry was given by Mr. A. Knechtel, Inspector of Dominion Forest Reserves, in the Normal School on February 26th, with Dr. J. C. Glashan, Inspector of the Ottawa Public Schools, in the chair. The large audience present listened to one of the most interesting addresses ever given before the Club. The address was illustrated with a collection of remarkably fine slides, a special lantern having been secured for the occasion.

EXCURSIONS.

In previous years it has often been found necessary to cancel an excursion completely because of rain. In order to obviate this, the Excursions Committee of the present Council announced in the April number of *The Ottawa Naturalist* that on rainy Saturdays the Club would meet in turn at the Fisheries Museum, the Seed Division, and the Geological Survey. The time of meeting for sub-excursions was changed from 3 o'clock to 2.30, and the Council is pleased to note that the change has proved acceptable to the members of the Club.

The following programme, embracing the names of a number of localities that had not been visited by the Club in recent years, was drawn up for the spring excursions:

April 25th, Rockcliffe.

May 2nd, Beechwood.

May 9th, Queen's Park, Aylmer.

May 16th, Beaver Meadow.

May 23rd, Ironsides and Wright's Island.

May 30th, Cumberland (General Excursion).

June 6th, Brennan's Wharf.

June 13th, Cache Bay, Hull.

June 20th, McKay's Lake and Outlet.

June 27th, Eastman's Springs (General Excursion).

The first excursion was cancelled because of rain, but the Club met at the Fisheries Museum where a pleasant hour was

spent in examining the exhibits under the leadership of Mr. A. Halkett, Naturalist of the Marine and Fisheries Department and Curator of the Museum. It was found necessary to make some other changes in the programme. The excursions to Brennan's Wharf and Cumberland were cancelled because of the abnormally high water of the Ottawa, which made landing at these places impossible. Other excursions were substituted, however, reports of which have appeared in *The Ottawa Naturalist*.

The programme of fall excursions was as follows:

Sept. 12th, Fairy Lake and Beaver Meadow.

Sept. 19th, Experimental Farm, a joint excursion of the Ottawa Horticultural Society and the Ottawa Field-Naturalists' Club.

Sept. 26th, Rockliffe and McKay's Lake

The fall excursions were carried out as arranged, and proved most successful in every respect. Prof. McCready, of the Ontario Agricultural College, Guelph, was present at the first of these excursions and gave an interesting account of the nature study work being done by the Macdonald Institute. Reports of all the fall excursions appear in the November number of *The Ottawa Naturalist*.

THE OTTAWA NATURALIST.

Volume XXII of *The Ottawa Naturalist*, the official organ of the Club, has been published in monthly numbers. This volume is larger than the average, consisting of 270 pages and 8 full page plates. The earlier numbers were issued under the editorship of Mr. J. M. Macoun, and the later numbers, published during Mr. Macoun's absence from the city, were edited by Mr. Arthur Gibson.

The January number takes the form of a memorial number to the late Dr. James Fletcher. It consists of almost fifty pages and contains two excellent full page photographs of the late Dr. Fletcher. It gives complete reports of the tributes paid to his memory by all the speakers at the memorial meeting, it furnishes a six-page reference list of his published articles, and is in every respect a worthy tribute to this great man.

The following are among the papers that appear in this volume:

ON GEOLOGY.

1. "Notes on Silurian Stromatoporoids from Hudson's Bay," Wm. A. Parks, Ph.D.
2. "Report on a Collection of Fossil Woods from the Cretaceous of Alberta," D. P. Penhallow, D.Sc.
3. "The Pelecypoda or Bivalve Mollusca of the Chazy formation in Canada," Dr. J. F. Whiteaves.

ON BOTANY.

1. "Conditions Unfavorable to the Resumption of Growth by the Dormant Embryo in Seeds," G. H. Clark, B.S.A.
2. "Observations on Seedlings of North American Phænogamous Plants," Theo. Holm.
3. "Is *Rhus Glabra* in Canada?" Ed. L. Greene.
4. "Two Newly Introduced Plants," Dr. James Fletcher.

ON ENTOMOLOGY.

1. "The Dragonflies of the Ottawa District," E. M. Walker, B.A.
2. "Fauna Ottawaensis: Hymenoptera—Superfamily III—Vespoidea," W. H. Harrington, F.R.S.C.
3. "A Remarkable Visitation of the Snow-white *Eugonia*," Arthur Gibson.
4. "Notes on the Species of *Phæocyma* found in Canada," John B. Smith, D.Sc.
5. "Notes on the Lepidoptera of Lake Rosseau District, Muskoka, Ontario," Arthur Gibson.
6. "Gall Midges of the Goldenrod," E. P. Felt.

ON CONCHOLOGY.

1. "*Lymnæa umbilicata* in Canada," Bryant Walker.

ON ORNITHOLOGY.

1. "Winter Birds of the Cobalt Region," Rev. C. G. Eifrig.
2. "Bird Migration, 1907; observations made on Sable Island," James Bouteiller.
3. "Nesting of Henslow Sparrow in Ontario," W. E. Saunders.
4. "Some Bird Habits," Norman Criddle.
5. "Blue Birds of the Maritime Provinces," W. H. Moore.
6. "Birds Observed at Ottawa, Winter of 1908-1909," Rev. C. G. Eifrig.

ON ZOOLOGY.

1. "Infant Cannibalism among Animals," Prof. E. E. Prince.
2. "The Cotton-tail Rabbit in Ontario," J. H. Fleming.
3. "Caribou on the Queen Charlotte Islands," J. H. Keen.

ON METEOROLOGY.

1. "Meteorological Optics," Otto Klotz, LL.D.
2. "Some Sanitary Considerations Regarding the Construction, Health and Ventilation of Houses," Dr. P. H. Bryce.

ON NATURE STUDY.

1. "The Importance of Nature Study with some suggestions as to methods," J. F. Power, M.A.

In addition to the above-named papers, this volume contains reports of excursions, meetings of the Branches, and meetings of the Council. It also includes an unusually large number of short notes contributed from collectors and observers in different parts of Canada.

REPORTS OF BRANCHES.

The Branches again report an active year. No better evidence could be furnished to show the all-round activity manifested by the Club than the fact that every Branch has contributed materially during the year either to the pages of *The Ottawa Naturalist* or to the lecture programme.

THE GEOLOGICAL BRANCH.

The Geological Branch reports that collections of fossils have been made during the year from the vicinity of Ottawa, and that several new species have been described from one of these made by Mr. Walter Billings. One or more of the leaders have attended the field excursions and have given what assistance they could in the study of the rock in the localities visited. The leaders point out the grand opportunities for live students who are willing to take up this subject systematically, both in collecting fossils and studying out the boundaries and relations of the different formations which outcrop within easy reach of the city.

THE BOTANICAL BRANCH.

Meetings have been held at the homes of various members of the Branch throughout the winter. It is the custom of the host of the evening to present a paper, after which there is a discussion of it by the members present. The following subjects discussed during the past winter will give some idea of the work done by this department.

"Methods of Forestry," at residence of Mr. E. R. Cameron; "Meanings of Some Common Plant Names," by Mr. A. E. Attwood; "Mendel's Law," by Mr. J. M. Macoun; "The Habitat of Wild Plants," by Prof. Macoun; "Some Inter-relations of Soils and Plants," and "Recent Work on the Longevity of Seeds," by Mr. G. H. Clark; "The Origin of our Cultivated Fruits" by Mr. R. B. Whyte.

Prof. John Macoun is at present collaborating a *Flora Ottawaensis*. This will include the names of all species that have

been found in what is known as the Ottawa district, embracing the area within a radius of thirty miles in every direction from Ottawa. It will describe the characteristic habitat of each species collected and will give the names of the localities where it has been collected as well as the name of the collector and the date of collection. The work is being submitted in parts to local workers so that each may add the results of his own field work. Every record in the late Dr. Fletcher's *Flora Ottawaensis* is to be included, and the work, when completed, cannot fail to prove a valuable local guide to the botanists of the Club.

THE ENTOMOLOGICAL BRANCH.

This Branch of the Club's work has had an active year. During the collecting season, as mentioned in the annual report of the Branch read at the evening *soirée* held on January 19th last, several of its members collected rather extensively in distant parts of Canada, thus adding considerably to the known range of many species of insects. These collections have not, as yet, been fully worked up, but some of the species are being recorded in the "Entomological Record for 1908," which has been prepared by Mr. Gibson, and which is being published in the annual report of the Entomological Society of Ontario, for that year.

The local members of the Branch have all been busy, and several interesting additions have been made to the Ottawa list. Two valuable papers appeared in the *Ottawa Naturalist* during the year, which are of particular interest, viz.: Dr. E. M. Walker's article on "The Dragonflies of the Ottawa District," and Mr. W. H. Harrington's paper on "Fauna Ottawaensis: Hymenoptera—Superfamily III—Vespoidea."

THE ORNITHOLOGICAL BRANCH.

The ornithological section has made progress in its work during the past year inasmuch as regular monthly meetings have been held at which papers have been read by the various members. Some new blood has been infused into this Branch by the addition of some young and capable ornithologists. Headway has been made in the revision of the Ottawa list of birds, and new and interesting records have been made. Particular attention might be drawn to the unusual bird visitors of the present winter as recorded in the November number of *The Ottawa Naturalist*.

THE ZOOLOGICAL BRANCH.

The Committee have to report that various members have carried on active field work; but of actual results there is little

to report. The chairman was absent on official work, in the course of which some interesting points in the life-history and migrations of the shad were decided, and a note of these will appear shortly in *The Ottawa Naturalist*. Mr. Halkett was again for some months in the Northwest Provinces, visiting remote lakes, where interesting observations were made in fish life in the Provinces of Alberta and Saskatchewan. The Biological Stations at St. Andrews, N.B., on the Georgian Bay, near Penetanguishene Ont., and at Nanaimo, B.C., have carried on important researches. At the last named station *Ronquilus jordani* was taken by the Rev. G. W. Taylor and Mr. Halkett in October, the first record for Canada of this interesting trachinoid. A further series of Biological Reports (forming Part III.) will be issued at an early date. Three specimens of the interesting Rocky Mountain Whitefish (*Coregonus williamsoni*) have just been received at the Fisheries Museum, and a short account of this peculiar species is being prepared.

THE LATE DR. FLETCHER.

In the death of Dr. James Fletcher the Club has sustained the greatest loss in its history. Dr. Fletcher was one of the founders of the Club, and from its inception, thirty years ago, he continued to take an active part in all its affairs up to the time of his death. The present volume of *The Ottawa Naturalist* contains contributions from his pen, and the published reports of excursions and branch meetings of the past year bear witness to his untiring zeal. No member ever brought to the work of the Club greater genius, displayed a more charming personality, or gave more unselfishly of his time and talents. It is quite fitting, therefore, that the Club with which he was so closely identified should take the initiative in the movement to erect a permanent memorial to him. A circular letter has been prepared and sent to societies and individuals interested in his work, and the committee in charge of the movement anticipates a generous response to its appeal for contributions towards the proposed memorial.

THE LIBRARY.

During the year a great many sets of *The Ottawa Naturalist* have been transferred from the room in the basement of the Normal School to the Geological Survey, where they are stored under the direct supervision of the Librarian, Mr. C. H. Young. The Council is pleased to be able to report that the question of making the exchanges more accessible to the members at last bids fair to be settled satisfactorily, as two definite plans for

accomplishing this are to be submitted to this meeting for its consideration.

On May 2nd, 1908, the Evening Journal printed a full page illustrated article on the Ottawa Field-Naturalists' Club, prepared by Mr. Andrew Halkett and Mr. Arthur Gibson. The article dealt with the history of the Club, its aims and its methods of working. Some four hundred copies of this issue were kindly supplied by the Evening Journal to the Club for distribution.

The president, Mr. A. E. Attwood, M.A., represented the Club at the May meeting of the Royal Society of Canada.

The Treasurer's Report shows a balance on hand of \$58.64.

The thanks of the Club are again due to Principal White for the use of the Normal School Assembly Hall, to the Library Board of the City Council and the Librarian, Mr. L. J. Burpee, for the use of the Lecture Hall of the Carnegie Library, and to the Press of the city for its co-operation in furthering the aims of the Club.

All of which is respectfully submitted,

T. E. CLARKE,

Secretary.

THE FLETCHER MEMORIAL FUND.

The members of The Ottawa Field-Naturalists' Club, and friends of the late Dr. James Fletcher, will be glad to learn that the Committee having charge of the above fund is meeting with very encouraging responses to the appeal for subscriptions, which was sent out a few weeks ago. Already the sum of \$1,100 has been promised. The Committee is much pleased with the varying amounts which have been subscribed by many friends of the late Dr. Fletcher living outside of Ottawa. There are, however, many local members of the Club who doubtless desire to contribute something towards the fund and who have not yet sent in their subscription blanks to the undersigned. It would help the Committee very much if these friends would indicate soon, the amount they intend to give. It is hoped that the sum of \$1,800 will be raised.

ARTHUR GIBSON,

Sec.-Treas. of Committee.

TREASURER'S STATEMENT FOR YEAR ENDING
16TH MARCH, 1909.

RECEIPTS.

Balance from previous year.....		\$ 197 24
Subscriptions—1908-1909.....	204 00	
Arrears.....	98 00	
	—————	\$ 302 00
Advertisements in OTTAWA NATURALIST.....		104 40
OTTAWA NATURALISTS sold.....		40 01
Authors' extras sold.....		32 44
Maps of Ottawa sold.....		60
Net proceeds, General Excursion to Chelsea, May, 1908.....		9 05
Government Grant.....		200 00
		\$ 885 74

EXPENDITURE.

Printing OTTAWA NATURALIST, Vol. XXII, 12 Nos., 270 pages, including cover.....	\$455 52	
Illustrations.....	60 45	
Authors' extras.....	62 13	
Miscellaneous printing—circulars, mailing envelopes, post cards, etc.....	54 65	
	—————	\$632 75
Postage on OTTAWA NATURALIST.....	35 84	
Editor.....	50 00	
	—————	\$718 59
Less 2 per cent. for cash on printers' accounts...	12 33	
		\$ 706 26
Secretary.....		25 00
Treasurer.....		25 00
Soirée expenses.....		34 64
Library expenses.....		2 50
Sundry expenses, postage, etc.....		33 70
Balance.....		58 64
		\$ 885 74

ARTHUR GIBSON, Treasurer,

Examined and found correct,

R. B. WHYTE, }
F. T. SHUTT, } Auditors.

**SUBSCRIPTIONS FOR THE NEW CLUB YEAR ARE NOW DUE,
AND SHOULD BE PAID AT ONCE.**

It is to be hoped that members will carefully examine the advertisements in this volume of THE OTTAWA NATURALIST, and make a point of dealing with those firms who thus help the Club.

CANADIAN SPECIES OF THALICTRUM.—I.

By EDWARD L. GREENE.

The Dominion of Canada being a northern country, at least when compared with Mexico, or even the United States, our census of *Thalictrum* species may as well begin with that northernmost member of the genus *T. alpinum*.

That familiar books and lists are correct in attributing this North-European species to Canada is a proposition that must, first of all, be put to the usual test. An end ought to be made of the practice of merely subscribing to, and reiterating the opinions of past generations about the identity of our native plants.

What is that Old World plant like which first obtained the appellation *Thalictrum alpinum*? That is the first question; and the next is: Have we in Canada anywhere any plant which as to essential marks, responds to the original description of that Old World type? Queries like these send us back in search of the first beginnings of the history of *Thalictrum alpinum*; and the excursion will prove an interesting and instructive one.

Although the name now in vogue for the type dates from Linnæus, the thing itself was better known and had been better described before that nomenclator was born than it ever was by him. The earliest records I have been able to find of the plant show it to have been discovered originally in the mountains of the northern part of Wales. The discoverer was an Oxford student, native of Wales, Edward Lloyd by name, the same to whom Salisbury, more than two centuries after Lloyd's death, dedicated the liliaceous genus *Lloydia*.

The discoverer brought roots of the plant to Oxford, where they were said to be flourishing at the time when the first description of the species was published, that is, in the year 1699.* Lloyd himself had named his new plant *Thalictrum montanum minimum praecox foliis splendidibus*; and it is hardly possible to indicate the essential peculiarities of the species more clearly than was thus done by Lloyd more than two centuries since in those six words. As compared with all other members of the genus as then known, this was alpine, was diminutive, very early flowering, and had a polished or shining green foliage. Bobart, in the place of Morison's *Historia* cited below, in a very full and admirable description (containing about a hundred words), says that the leaves are as shining as if oil had run over the surface of them. This, however, only of the upper face, the lower being pale and dull, he says.

*Bobart, in Moris. *Hist. Pl.* III, 325.

There are before me two sheets of specimens, both of which were collected—one of them fifty years since, the other seventy—by the late Mr. John Ball, and which must be understood to represent the plant of Lloyd, of Bobart and of Ray. One of the sheets Mr. Ball gathered in 1859 on mountains near Llanberis, North Wales—the very region whence *T. alpinum* was first obtained—the other is from Glen Isla, Forfarshire, Scotland. In the interests of the future investigation of the alpine meadow-rue in America I shall here give a precise account of these two sheets of British and indubitably typical specimens. Those from Wales are in flower only, those from Scotland in fruit.

Plants at early flowering $1\frac{1}{2}$ to $2\frac{1}{4}$ inches high, the leaves themselves 1 to $1\frac{1}{4}$ inches long, normally of 11 leaflets, these broad at base and with little suggestion of the cunate, the whole leaflet broader than long, the terminals 3-lobed, the laterals 5-lobed, all lobes obtuse; upper face dark-green and polished, lower face glaucous, but between the veins only, the veins themselves, fine, delicate, not at all prominent, deep-green, in no degree glaucous; fruiting pedicels long, filiform, firmly ascending, but abruptly curved downwards just under the head of carpels.

Nothing well answering to the Welsh and typical *Thalictrum alpinum* is known to occur on our side of the Atlantic; yet in North America, north of the British Boundary, there exist at least three notably different plants, all of which are in so far at agreement with genuine *T. alpinum* as to admit of their being treated as varieties of it, if not indeed as sub-species. Their proposed names, and the peculiar marks of each, are subjoined.

THALICTRUM ALPINUM, var. GASPENSE. Plant of twice the size of the type, often 6 or 8 inches high; leaflets normally 11, longer than broad, manifestly cuneate, less deeply lobed, dark-green and lustrous above, glaucous beneath even to the veins and veinlets, these more prominent than in the type, and colored green only during early stages; pedicels filiform, spreading away from the rhachis and curved downward throughout their whole length, never abruptly bent under the fruit; carpels (immature) 3 or 4.

Damp ledges, on the banks of the Grand River, Gaspé Co., Quebec, 30 June and 3 July, 1904, M. L. Fernald.

THALICTRUM ALPINUM, var. MICROSPERMUM. Plant very tall, often a foot high; leaflets normally 11, always longer than broad, cuneate, few more than 3-lobed, deep-green and shining above, very white beneath with bloom even to the not very prominent veins and veinlets; pedicels short, firm, even wiry, curved throughout and not at summit only; carpels minute, obliquely oblong-oval, sessile, seemingly one only from each flower.

In a marsh near the confluence of Exploits River and Badger Brook, Newfoundland, 13 August, 1894, Robinson and Schrenk, their n. 26 as in Herb. Canad. Geol. Surv.

THALICTRUM ALPINUM, var. *NESIOTICUM*. Nearly as large as the last, stouter; leaflets about 17, the terminals cuneate, some of the laterals not so, but broader than long, all lightly lobed, dark and shining above save as there marked by very light-colored anastomosing veinlets, beneath only moderately glaucous; pedicels firm, curved slightly throughout, not at apex; carpels 1-3, narrowly obovate, tipped with a straight beak, and conspicuously as well as rather slenderly stipitate.

Said to be common in gravelly places along rivers on the Island of Anticosti, Jupiter River, 20 August, 1883, John Macoun; the specimens at that season in quite mature fruit. Types in Herb. Canad. Geol. Surv.

THALICTRUM ALPINUM, var. *PUDICUM*. Size of the last; leaflets normally 21, all manifestly cuneate below and longer than broad, dark and shining above, glaucous beneath even to the veins; pedicels firm but altogether drooping, being curved downward from almost the base and above the base almost straight; carpels 2 or 3, abruptly tapering at base rather than definitely stipitate.

I do not here take into consideration Greenland specimens of these plants, except to say that as far as they are known to me, they can form no part of any rational *Thalictrum alpinum*, lacking, as they do, the essential character of a dark-green shining foliage. Those very high-northern congeners have leaves that are of the same dull glaucous green on both faces. This type is also plentiful in Europe outside of Great Britain—perhaps present locally even there—occurring in Lapland, Norway, and even on alpine summits in middle and southern Europe. Again and again have these wholly glaucous plants been held separate and segregate from the original British type by most competent systematists.

CRATAEGUS DOUGLASII, LINDL.

A note in the November OTTAWA NATURALIST recorded the finding of *Crataegus Douglasii* near Lake Abitibi. Mr. W. J. Wilson found this species along the Abitibi River and at the mouth of Black River in 1901 and again about 100 miles below Black River in 1902. His record was printed in THE NATURALIST for February 1903. Mr. Wilson in 1906 again found *C. Douglasii* east of Lake Abitibi so that it is probably a species of wide distribution in that region. It has also been collected in Michigan and on islands in both Lake Huron and Lake Superior.

J. M. M.

MEETING OF BOTANICAL BRANCH.

Held at the residence of Prof. John Macoun, February 20th, at which were present, in addition to the host, Messrs. Attwood, Cameron, Whyte, Clark, Bond, Reid, Groh, Newman, Campbell, J. M. Macoun and W. T. Macoun.

The subject for the evening's discussion was "The Habitat of Plants and Its Relation to Cultivated Varieties."

In opening the meeting, Prof. Macoun described the development of a well informed botanist. In the colleges he was trained to learn plants from a biological standpoint, and even was given some lessons in systematic botany. The relationships of plants to one another was also now given considerable attention in the class-room, by means of the improved methods of studying the parts of plants which had been preserved in liquids. But while he could from books and microscopical examinations get some idea of the conditions under which the different species grew in Nature, it was necessary for him to go to the field and see and learn for himself if he were to become accurately informed and make the best use of his knowledge. Having become acquainted with the habits of the wild species he could then put his knowledge to practical use. In the examination of land, for instance, he would be able to tell fairly accurately from the wild plants which grew on it, the character of the soil and whether it was dry, moist or wet. In exploring or surveying unsettled districts it would be possible to tell by analogy what the climate was likely to be from the plants which grew there and which grew in some settled district. Prof. Macoun told of how he had used his knowledge in this respect when he explored the Northwest about thirty years ago. Finding wild species of grasses there which ripened well and knowing that the same species grew and ripened at Belleville, Ont., in about the same season as wheat, he used this knowledge in forming his conclusion that immense areas in the Northwest were suited for wheat growing. Considerable discussion followed bearing on the hardiness of plants, especially in regard to the cause of apple tree killing in the Northwest. The conclusion reached by a number of the members was that the trees were dried out owing to long continued, severe cold and drying winds. It was felt, however, that when the newer and hardier sorts were more widely tested, it would be found that abundance of apples could be grown in many sections. This part of the discussion brought out the fact that fruits from wild species in cold climates did better in cool soils than those from a comparatively warm climate, instances being on the one side the gooseberry, raspberry and currant, and on the other the peach.

W. T. M.

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T. E. Clarke, H. Groh.

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