THE OTTAWA NATURALIST.

VOL. IX.

OTTAWA, FEBRUARY, 1896.

No. 11.

NOTES ON THE FLORA OF ONTARIO.

BY JOHN MACOUN, M. A., F. L. S.

II

NOTES ON THE SPECIES OF RANUNCULACEÆ OCCURRING IN ONTARIO OR WESTERN QUEBEC.

Within the above limits we have fifteen genera and forty-four species. Many of these occur under diverse conditions and in peculiar habitats and are seldom observed except by botanical collectors. It is the purpose of these notes to enumerate them all and in this way enable members of the Club and others to look out for them when opportunity serves.

The genus *Clematis* has with us two representatives which are very unlike in appearance and habit. The more common species is *C. Virginiana* which grows along all our rivers and brooks and climbs over alders and other bushes where its fruits of long-tailed achenes make it a prominent object in the autumn. In July and August its greenish white flowers are quite attractive and when carefully examined it will be found that the staminate one is the more beautiful as the filaments of the numerous stamens really make up the flowers.

The Atragene, (C. verticillaris) is rather rare in the settled parts of the province but on the rocky slopes of the Laurentide hills it is not uncommon and when seen is not easily forgotten, its violet sepals, from one to two inches long, being seen early in the season when flowers are more attractive than they are later. Kingsmere mountain is the nearest station to Ottawa.

The genus Anemone is represented by six species though two of them do not occur in the settled parts of the area under consideration but have their homes along Lake Superior and northward.

THE OTTAWA NATURALIST.

The Small-flowered Anemone, (*A. parviflora*, Michx.), is found in the crevices of rocks around Lake Superior and will very likely be detected both westward and northward in the province, as well as at the sources of the Ottawa and Gatineau rivers. This species seldom grows more than six inches high and has a *single white* flower.

The other rare species, *A. multifida*, Poir., has been collected at Pic River, Lake Superior and it, too, may be looked for both northward and westward. It is easily distinguished from the preceding by its dull crimson to yellowish-white flowers, deeply cut leaves and one to three flowered stems.

Two species A. cylindrica, Gray, and A. Virginiana, Linn., are rather common throughout the province and by collectors are very often mistaken for each other. The former, however, always grows on dry ground, whereas the latter, which is much less common, is found in rich moist soil, in fence corners and borders of woods. The easiest way to distinguish these species is by the fruit, which in the former is cylindrical and an inch or more long and in the latter ovate or oblong; if young or in flower only, the involucral leaves on the stem in the first are from 3-9, while in the second they are from 2-3.

Canadian Anemone (A. Canadensis, Linn. or A. dichotoma Linn.) grows in river bottoms throughout the province. It is seldom found over a foot high and grows in masses in low meadows where its white sepals are very conspicuous in June. In fruit, this species is easily recognised, as its achenes are nearly smooth and gathered into a round head.

Our species of Wind Flower, A. quinquefolia, L. or A. nemorosa, as it is generally named is a graceful little plant found in rich moist woods throughout the province but quite local. The little stem terminated by a single flower is seldom over eight inches high and has a whorl of 3—5 leaflets immediately under the flower. The sepals vary from white to violet and blue. The four last-mentioned species are common in the Ottawa district.

Following the Anemones we have Hepatica represented by two forms now admitted as species. These are *H. triloba* and *H. acutiloba*, so well known to all, young or old, as "Mayflowers." The former

218

NOTES ON THE FLORA OF ONTARIO.

has round-lobed leaves and the latter acute-lobed ones and these constitute the chief point of separation unless the fruit be examined.

The next genus Anemonella includes only one species A. *thalic-troides*, the *Thalictrum anemonoides* of Gray's Manual. This is a lovely little plant, growing in clumps from fascicled tubiform roots, and is well worthy of a place in our gardens. It is common in open woods, in rocky places and in fence corners from Toronto westward and southward in the Niagara Peninsula.

Following this is the genus Thalictrum with three species, two of which are quite common, the third being rather obscure may also be common but being seldom collected is considered rare. The commonest species is T. dioicum found in all rich woods throughout the province. In the woods around Ottawa this is a lovely thing in early spring. As its name indicates the stamens are on one plant and The panicles in another. the male the pistils on plant are greenish purple. The stamens have long drooping filaments and fuscous anthers which when grouped make prominent objects in the bare spring woods.

Another species *T. polygamum*, Muhl. (*T. Cornuti*, L.) is found in river bottoms and around springs and by brooks throughout the country. In the neighbourhood of Ottawa, especially along the Rideau River above Billings' Bridge, it grows into a large bushy plant over five feet high. It flowers late and is seldom collected with ripe seeds.

Our other species is *T. purpurascens*, which has much the same general appearance but does not grow so tall nor in as damp soil. The stem of *T. polygamum*, is mostly green and glabrous and the flowers white, while that of *T. purpurascens* is purplish and a little glandular, and the flowers are purple or rarely whitish. These two species should be collected in fruit and carefully preserved as it is necessary to work out the distribution of the latter. The only authentic locality in Ontario known to the writer is on Dunning's farm, near Drummondville, Niagara Falls. Dr. Burgess has collected it near London. The specimens collected along the Ottawa by Dr. Ami are doubtful as they are without fruit. Our next genus is *Myosurus*, (Mousetail), represented by one species *M. minimus*, *L.* This is a very remarkable and inconspicuous little plant but most interesting withal. It is a very small annual with entire, linear leaves in a radical tuft, and simple one-flowered scapes. After flowering the carpel-spike becomes elongated an inch or two which gives the name *Mousetail*. The only recorded localities in Ontario are in the vicinity of Belleville where it was found many years ago in damp places subject to overflow, on limestone shingle west of Albert College and at the Ferry House in Prince Edward County opposite Belleville.

Following this is the large genus *Ranunculus* which is represented by nineteen species, three of them introduced from Europe. This genus takes a multiplicity of forms and grows in all kinds of localities.

In our waters we have at least two species of White-flowered *Crowfoots*. One, *R. circinatus*, Sibth., is apparently uncommon in Ontario but very common in Manitoba and westward. The leaves of this species are sessile and are orbicular in outline and do not collapse in the least when taken from the water. We have this form from Patterson's Creek, Ottawa (Mr. Wm. Scott), and from Wingham (Mr. J. A. Morton).

The other, *R. aquatilis*, L. is very variable and takes many forms both in America and Europe. This species unlike *R. circinatus* has petioled leaves which collapse more or less when taken from the water. One form, var. *trichophyllus*, Gray, represents those specimens with rather short and slightly rigid leaves. We have this from Belleville, Owen Sound and Port Arthur. The second, var. *flaccidus*, *Pers.*, has much longer, soft and capillary dissected leaves all collapsing when withdrawn from the water. This is the deep water form and is no doubt plentiful in many of our streams, yet in our herbarium we have no Ontario specimens.

R. Cymbalaria, Pursh, is a low glabrous species that is at home along the sea coast or on the margin of brackish pools in the prairie region but is occasionally found in mud along river margins where possibly there is saline ooze. Collected along the Ottawa at Thurso, at Wingham, Ont., and at Fort William, near Port Arthur, Lake Superior.

The next is a water species with bright yellow flowers, *R. multifidus*, so named from its very much dissected leaves. Three forms were formerly included under this species but a better knowledge of their characters has been obtained and they are now easily separated. This species is always found in slow-flowing or stagnant water and when flowering has floating elongated fistulous stems and showy yellow flowers.

The var. *terrestris*, Gray, is a series of shallow water or wet soil forms which creep, rooting in the mud, with shorter stems and emersed coarsely dissected leaves and flowers and fruit smaller. Both the above are general throughout the province but seldom collected. This form is abundant in Malloch's Bay near the C. P. R. station, Ottawa.

A very peculiar species, *R. Lapponicus*, was described, as *Anemone nudicaulis* by Dr. Gray (see Manual, Page 38) from imperfect specimens, which were without flowers. Prior to that time it had been collected in a peat bog where Port Arthur now stands by the Rev. J. K. McMorine and in 1884 in peat bogs, Nipigon river by the writer.

A small and interesting species, *R. Flammula*, L. var. *reptans*, E. Meyer, is found creeping amongst gravel in, or close to, the water on the shores of all lakes and large streams throughout the country. It may be easily known by its creeping habit, linear or lanceolate leaves and small yellow flowers. Very common at Paugan Falls on the Gatineau.

Following this little species is a tall robust one, *R. ambigens*, Watson—nearly two feet high, rising from a decumbent base. Its leaves are lanceolate, acute, generally serrulate, 3 to 4 inches long and from one fourth to half an inch wide. This species has been gathered near Port Colborne and should be looked for in the marshy country on the Welland Canal.

Our next species, *R. rhomboideus*, Goldie, has had a variety of names as it begins to flower when hardly an inch above the ground, just as the snow disappears and continues in bloom for two months. This is a common species in central and western Ontario, delighting in warm sandy soil.

A common species in rather damp woods and along old woodland roads is *R. abortivus* which might be taken for the above but it is quite smooth, more branching and has inconspicuous flowers. This has a var. *micranthus*, Gray—which may be found in our limits. It may be distinguished from the species by being more or less hairy, having a glabrous receptacle, or having some or most of its radical leaves threeparted.

An annual species -- R. sceleratus, L. closely related to R. abortivus but with dissected leaves and succulent stems is a common species in boggy places or in the mud of ditches in many parts of the province but more especially west of Kingston. It has been found at Borthwick's Springs in the vicinity of Ottawa.

Another woodland species—R. recurvatus, Poir.—has no relatives on this side of the continent and being found in all rich woods is a common species. Easily distinguished by its reflexed sepals and petals, and in fruit by its round head and the long recurved beaks of the carpels.

Following this are two introduced species—R. acris L. and R. bulbosus, L. The former is very common by roadsides and in old damp pastures while the latter is either very rare or seldom distinguished from acris. Only two characters are necessary to distinguish these species. The latter has a globose, solid, bulbous base or corm, the former has not this base; in the former the sepals are merely spreading, in the latter they are reflexed.

R. Pennsylvanicus L.—is common in boggy places amongst weeds and grass. It is seldom over a foot high but is stout, and branching and has small flowers with reflexed calyx lobes and an oblong or almost cylindrical head.

Now follows a group of five species that require careful examination in the field, and good fruiting specimens for the herbarium. When Part I of my Catalogue was published, we had little information regarding them, but now they are easily separated. *R. repens* L., remains as I had it, and my var. *hispidus* becomes *R. Macounii*, Britton., but is still retained in Gray's Manual as *R. hispidus*, Hook. (page 43.)

222

NOTES ON THE FLORA OF ONTARIO.

R. repens being an introduced species is always found in the settled parts of the country, generally by ditches or in boggy pastures. It is perennial, and creeps extensively, lies prostrate on the ground or nearly so, forming mats; its leaves are often spotted, and usually very hairy.

R. Macounii grows in boggy places usually amongst grass, is ascending or declined, seldom or never rooting at the joints, and is not perennial. Our most eastern specimens are from Lake Nipigon, but it is certain to be found farther east.

The two following species are included in the *R. fascicularis* of Gray's Manual (page 43), but are separated in Dr. Britton's Revision and in Vol. I, Part I of the Synoptical Flora of North America just published. The species are *R. hispidus*, Michx. (not Hook.), and *R. fascicularis*, Muhl. Both grow in woods and flower early, but the former prefers the drier ground. Both have large flowers but the former is much the taller, and has fibrous roots, and the pubescence of the lower parts is spreading, while in the latter the roots are tuberous-thickened or fusiform, and the pubescence of the lower part of the stems is appressed. We have the former from Wesley Park, Niagara Falls, which is the only known locality but the latter species extends from the Bay of Quinte westward.

Closely related to these is *R. septentrionalis*, Poir., which has a wide range in the province, and seems to claim the alluvium along our rivers and smaller streams for its habitat. We have specimens from Manotick and Casselman and westward. This species is stouter than either of the others, is often stoloniferous, has large yellow flowers, and is seldom very hairy. It may be taken for *R. Macounii*, but is easily separated by its fruit, which is rather gradually contracted into a long flat beak. In *Macounii* the beak is short and straight, and formed of the whole flat, subulate style.

Following *Ranunculus* is the genus *Caltha* with one species— *C. palustris*, L. the well known "Cowslip" of the people or the Marsh Marigold of the books. This species is found by the margins of rivers and brooks and in wet places everywhere. Its early and bright yellow flowers make it an attractive object in spring, Isopyrum is a genus of low perennials which is represented in the province by one species *I. biternatum*, Torr. and Gray. Our only record of it is from London where it was found by Mr. J. Dearness. In general appearance it resembles *Anemonella* but the fruit is a two to three seeded follicle, whereas in that genus it it is an achene.

Gold-thread, (*Coptis*) is represented by one species *C. trifolia*, Salisb.—which is found in cedar swamps and on hummocks in wet woods throughout the province. The yellow rootstocks and white starlike flowers amply distinguish it from all other swamp flowers.

The Columbine (Aquilegia Canadensis, L.) is one of our lovely spring flowers and is found in dry places amongst broken rocks in all parts of the country. It is a curious circumstance that all the native Columbines, and we have six, grow amongst the debris of broken rocks.

No native species of *Delphinium* grows in the province but one. D. Consolida L., the common Larkspur of the gardens is often found by roadsides on waste-heaps or as a weed in gardens, and another species less branching—D. Ajacis— has been found at Lake Scugog by Mr. W. Scott of the Normal School, Toronto. The pods are the best character by which to separate them. In the first the follicle is smooth and in the latter, pubescent.

Black Snake Root or Black Cohosh, (*Cimicifuga racemosa*, Nutt.) is a rare species and is only found in the southwestern part of the province extending from Galt to the Niagara peninsula. It is a tall plant with straight and stiff racemes of flowers often over a foot long. We have nothing else like it and once seen, its general appearance will not be forgotten.

The Baneberry (Actae) has two representatives in our rich woodlands which are difficult to separate when in flower. These are A. spicata, L. var. rubra, Ait. and A. alba Mill. In general terms, one is said to have red berries and the other white but this is not a fact as each species has berries of both kinds. Both grow in damp woods in rich soil and both have white flowers and very little difference in the form of the raceme. In fruit, however, they differ widely no matter what the colour of the berries, the pedicels in A. spicata

THE BUSHY-TAILED WOOD RAT OF BRIT. COLUMBIA.

are long and slender, those of *A. alba* are short and stout and almost as thick as the peduncle.

Yellowroot (*Hydrastis Canadensis*, L.), is only occasionally met with and may be considered very rare. It grows in rich soil in woods and has been collected at Prescott and from Niagara westward to London. Owing to its large peltate leaves it might be taken at first sight for small specimens of *Podophyllum* but the situation of the flower dispells the illusion. In spring it sends up a stem and a single longpetioled peltate leaf. The stem has two leaves near its summit, one of these is petioled, the other sessile, and from this leaf rises a short peduncled white flower, followed by a red fruit resembling a raspberry.

SOME ACCOUNT OF THE BUSHY-TAILED WOOD RAT OF BRITISH COLUMBIA (NEOTOMA CINEREA, ORD.)

By C. DEBLOIS GREEN, OSOYOOS, B. C.

In the interior of British Columbia there lives a small animal which is more destructive and more annoying than any other animal pest I know. It is the Bushy-tailed Wood-rat or Bush-rat, an animal rather heavier than the Norway Rat and having a tail not unlike that of a Flying Squirrel but not so well developed or silky. The whiskers are very long and coarse, the colour of the body is gray, and the hair is finer and longer than that of the Norway rat.

Its natural home is in the mountains among rock slides and broken rocky hillsides and where possible it protects its hole by collecting cactus and storing them in quantities all around its home, probably to keep coyotes and other enemies at bay. So long as it contents itself with this kind of life, it is bearable, but when it finds that a cabin is in the neighbourhood, the rock slide is not good enough for it.

The first warning one has of the objectionable presence of this animal in a house is hearing a series of heavy blows struck on some board as with a quirt. This is done with the tail which is kept going when-

225



Macoun, John. 1896. "Notes on the Flora of Ontario, II., Ranunculacea." *The Ottawa naturalist* 9(11), 217–225.

View This Item Online: <u>https://www.biodiversitylibrary.org/item/17998</u> Permalink: <u>https://www.biodiversitylibrary.org/partpdf/369905</u>

Holding Institution MBLWHOI Library

Sponsored by MBLWHOI Library

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.