## 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 *Thaluctrum 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 splendentibus*; 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.

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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 meadowrue 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 *Thalicirum* 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, darkgreen 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.

1909]



Greene, Edward Lee. 1909. "Canadian Species of Thalictrum I." *The Ottawa naturalist* 23(1), 17–19.

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