

Botanical Notes

Author(s): E. J. Hill

Source: *Botanical Gazette*, Vol. 6, No. 9 (Sep., 1881), pp. 259-263

Published by: The University of Chicago Press

Stable URL: <http://www.jstor.org/stable/2994908>

Accessed: 12-02-2017 20:08 UTC

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://about.jstor.org/terms>



The University of Chicago Press is collaborating with JSTOR to digitize, preserve and extend access to *Botanical Gazette*

ing in a plane, or being reflexed as in *Cyclamen*. The apparent peduncles are about an inch in length, but these are really peduncle-like branches or the axes of 1-3 flowered racemes, the pedicels being only a line in length, bracted at the base, thickening under the fertile flowers into top-shaped receptacles. When there is more than one flower the terminal one is sterile the lower and fertile flowers consisting of a pistil only. The legume is somewhat moniliform and consists of from one to four joints, each about one-fourth of an inch long, hispid, the terminal one beaked. The joints disarticulate as readily as do those of *Tripsacum*, the articulations being tumid and oblique, the scars oval and white.

As to the *Garberia* I cannot add much to the published descriptions. It is a shrubby Composite, of cinereous color, unique among cis-Mississippi plants, but similar to some of the shrubby *Compositæ* of the far west. It grows on sterile, sandy ridges, where it forms compact bushes two to four feet in height, with numerous stems and branches, its mode of branching being Ericaceous, like *Azalea*, etc. It is quite leafy, the leaves being obovate and only about an inch in length. The corymbose flowers appear in the fall and are of a dull purple color. It is singular that Nuttall should have called this plant a *Liatris*. Many botanists have considered that great similarity of floral structure is unquestionable evidence of generic identity, and this opinion has led to some very artificial grouping of species. Prof. Gray did well in separating *Liatris fruticosa* from the rest of that genus. It was also highly proper to take out the species *odoratissima* and *paniculata*, but the propriety of erecting a new genus for them is questionable. Familiarity with these plants in the field leads me to believe that their natural position is in the genus *Carphephorus*, to species of which each is closely allied. Only a slight change of generic characters would have been required to establish this very natural group.

—A. H. CURTISS.

Botanical Notes, from Rev. E. J. Hill, Englewood, Illinois.—

Anemone multifida, DC. Found in flower August 10, 1878, on the sandy beach of Grand Traverse Bay, near the landing at Torch Lake, Mich. A number of specimens were gathered in various states of flower and fruit, showing that it had not ceased blooming since the time it began to flower in early summer.

Cadramine hirsuta, L., var. *sylvatica*. The smooth form, like the original *C. Virginica* described by Michaux, grows in dry, open woods at Highland Park, north of Chicago. It is usually found farther south.

Lepidium campestre, L. Adventive by Ft. Wayne R. R., at Englewood. Only a few plants found.

Hibiscus Moscheutos, L. This plant, with a large and showy flower, grows luxuriantly by Lake George, and in the adjacent swamps near Whiting, Lake county, Indiana. The plants were often five feet or more in height, and the flowers larger than those of the common Hollyhock. I saw it in cultivation at Bear Lake, Manistee county, Mich., in August, 1880. It was brought by emigrants from Ohio. As the land was comparatively dry, and the height of the plants three

feet or more, with flowers large and well formed, the evidence was conclusive that it easily bears cultivation. I learned that the stock from which this was brought was also cultivated.

Hippuris vulgaris, L. Grows in a small stream at Otis, Ind., ten miles west of Laporte. It is the only place where I have seen this plant, comparatively rare, in this vicinity. I do not often meet with it elsewhere, the only time, as I have it recorded, in Bear River, near Petoskey, Mich., and at Frankfort, Mich., both stations on the eastern shore of Lake Michigan.

Cornus Canadensis, L. As in the case of some other species of *Cornus*, this was found both in flower and fruit at Manistee, Mich., August 6, 1880.

Erigeron bellidifolium, Muhl. Specimens with white flowers were found last year at Whiting, Ind. Also those with pale pink rays varying to white. Nearly all the flowers seen the present season are white.

Diplopappus umbellatus, Torr. & Gr. Plants roughish and pubescent occur at Whiting. Similar forms were found this year at Sault Ste. Marie. Those thickly covered with hair were obtained at Bruce Mine, on the St. Mary River, Ontario.

Bidens Beckii, Torr. This plant, credited in Gray's Manual (and on the same authority in Patterson's Catalogue of Illinois Plants) to Illinois, but without locality, grows in the Calumet River at South Chicago. Occurs also at Manistee, Mich.

Cnicus Pitcheri, Torr. Grows on the sandy shore of Lake Michigan, at Pine Station, Ind. Also found in similar places at Petoskey, Mich. In both places it is associated with *Solidago Virgaurea*, L., var. *humilis*, Gray.

Veronica Anagallis, L. Plants glandular hairy (Gray's Syn. Fl. N. A.) are found at South Chicago.

Sparganium minimum, Bauhin. In ponds at Manistee and in "sloughs" at Pine Station. These are the only localities where I have seen this plant during many years of collecting, and it is not abundant in either place.

Potamogeton Claytoni, Tuck. In creeks of Pere Marquette River, Ludington, Mich., forms occur with floating leaves $1\frac{1}{2}'$ – $3\frac{1}{2}'$ long, and the submersed leaves 7-nerved.

Potamogeton perfoliatus, L. I find typical forms of this in the Little Manistee River, at Manistee, with short, roundish or oval leaves. Nearly all the plants gathered at the West have the lanceolate leaf, usually shorter than in the type specimen (var. *lanceolatus*, Robbins.). They gradually vary with all degrees of difference between the variety and the typical species, so that it is often hard to tell to which they should be assigned.

Potamogeton Niagarensis? Robbins. This plant, probably only a variety of *P. pauciflorus*, Pursh, has been found common in several places near here the past season. I have traced it as far east as Otis, Ind.

Mr. C. F. Wheeler, of Hubbardston, Mich., sends it from his vicinity. Its fruiting season is long. It was gathered with well formed fruit May 28, and found fresh and in fruit as late as September 6.

Potamogeton pauciflorus, Pursh. Typical forms are found at Manistee and Frankfort. These have fine, almost hair-like leaves. I have not yet met with these here, as all the plants seem to have the type of fruit of *P. Niagarensis*, and the leaves broader, with a larger and coarser growth of stem. Both forms usually grow in dense masses, often completely covering or even filling the water if very shallow, the stems being so entangled as to be separated with difficulty. I found none of the form of *P. Niagarensis*, last summer, on the eastern shore of Lake Michigan, between Frankfort and Ludington, unless some broader leaved specimens, growing with *P. pauciflorus*, but without fruit, be of this kind. Those seen this summer at Sault Ste. Marie, and on the east side of St. Mary's River, in Ontario, and at Mackinac have the fine leaf.

Potamogeton pusillus, L., var. *major*, Fries. This plant, hitherto considered very rare and hard to get, grows in great abundance at Manistee, in the lake and river of that name, and in the Aux Becs Scies, at Frankfort. In both these places it was the prevailing form so far as observed. In 1878, while making the "inland passage" between Cheboygan and Petoskey, Mich., a few plants were picked out of Crooked River, but under conditions that did not allow of a determination of its abundance. The evidence is in favor of its being common in the northern part of the southern peninsula of Michigan. This conjecture, made on the evidence of last year's examination of localities in Michigan, has been strengthened by the experience of this summer. All plants of *P. pusillus* seen in the St. Mary's River, at Sault Ste. Marie, were of the var. *major*. Perhaps it is essentially a northern form. It may be looked for in other places east of Lake Michigan, within the limits of that State, and in Wisconsin and northward. Until the present season I had marked it as "rare at South Chicago," having found a few specimens. This season I have found it in fair quantity at this place, thus, in all probability, indicating the range of the plant as co-extensive with Lake Michigan. Near Chicago the forms of *P. pusillus* incline to the var. *tenuissimus*, Mertens & Koch, typical specimens of the plants being hard to find.

Potamogeton marinus, L. This was gathered in Crystal Lake, east of Frankfort. It grows in sand in the shallow water by the margin of the lake. The stems rise from running rootstocks to the height of two to six inches. The stigma is not sessile, but with a short style, differing in this from the type species. Mr. Wheeler sent the same plant for identification, the habitat of which was unfortunately lost. To make the determination of the Crystal Lake specimens certain they were sent to Mr. Morong, of Ashland, Mass., and the only difference noticed is the presence of the short style. In the specimens sent by Mr. Wheeler the stigma is more nearly sessile. Since writing the

above I have found plenty of the typical form, like those gathered by Rev. Morong "in shallow rapids at Streets Island above Niagara Falls," mentioned in the BOTANICAL GAZETTE for May, 1880. They grow in the rapids of St. Mary's River. Those found were on the American side, near the head of the rapids. The water is shallow and the bottom thickly covered with pebbles and stones, among which they root. A few were seen above the rapids.

Potamogeton (undetermined). This plant, mentioned in the BOTANICAL GAZETTE of May, 1880, as occurring at Ashtabula, Ohio, and thought to be a variety of *P. zosteræfolius*, Schum., was again found the past season at Manistee. As it grew in abundance, opportunity was given to study it in all stages of growth. The plants gathered at Ashtabula were too few and imperfect to determine with definiteness. It will apparently have to rank as a new species unless identified with some European form. It grows in stagnant water, in the four places where it has yet been seen, in pools or ponds without an outlet. These are common in Michigan, being "kettle-holes" made in the boulder clay of the drift formation. Sunk many feet beneath the rim of surrounding hills, they furnish a fine soil in their slimy bottoms for the growth of aquatic plants.

Broad leaved forms of another *Potamogeton*, allied to *P. pectinatus*, also occur at Manistee and Frankfort. At the time of finding, in August, the fruit was barely formed, too immature for determination. It must ripen in September or October. Apparently the same species was detected in the St. Mary's River the present year. Mr. Morong thinks it may be *P. flabellatus*, Babington, a species found in Europe. The attention of collectors is called to this, that those who may have an opportunity to gather it later in the year may secure some with ripened fruit. It may be looked for in situations in which *P. pectinatus* grows, though on the whole it seems to prefer more rapid water. In the St. Mary's River the current was so strong as to bow the stems, three or four feet long, into a nearly horizontal direction. Some were seen growing in the same condition in the Little Manistee. The broader leaves, the stem pinnately rather than dichotomously branched, and the late fruit, are good external distinctions, between it and *P. pectinatus*. I have found the fruit of the latter well formed as early as June 20. All forms of *P. pectinatus* found at Manistee and Ludington had all the fruit ripe and plants decaying.

It may be added incidentally that the study of these *Potamogetons* furnished good examples of the principle of "compensation in growth." When the leaves of *P. pusillus*, var. *major*, *P. pauciflorus*, and of the last mentioned kind were particularly remarkable for breadth, they were quite uniformly devoid of fruit. They seem to have exhausted their forces in the production of leaves.

Goodyera Menziesii, Lind. Sparingly found at Frankfort. Other stations are Petoskey and Boyne Falls, Northport and along Grand Traverse Bay, Mackinac. Common at Sault Ste. Marie, on the Canada side. Resembles *Goodyera pubescens*, the common form at all

these stations, but it is generally taller and with the leaves striped rather than blotched with white. *Goodyera repens* appears to be uncommon in these localities.

Spiranthes Romanzoviana, Chamisso. Found in bogs at Northport, Mich., by a pond known as Mud Lake. Rather common at Sault Ste. Marie. It closely resembles, externally, *S. cernua*, and might easily be taken for that plant, but generally has broader leaves and blossoms earlier, in July and August.

Listera convallarioides, Hook. Cedar swamps, Bear Lake, Mich., Sault Ste. Marie, Ontario.

Juncus pelocarpus, E. Meyer. Bear Lake, also at Laporte, Ind.

Rhynchospora capillacea, Torr., var. *leviseta*, E. J. Hill. This plant, first detected at Pine Station, Ind., in 1875, and described in the *American Naturalist* the following year, is distinguished from the typical species by its perfectly smooth bristles. It has been observed in the original locality nearly every year since, and preserves the same peculiarity. Last year it was gathered in abundance at Whiting, and found the present season at Edgemoor, between the two stations mentioned above. So far as observed, plants from these three places, and from different localities surrounding them, all have the characteristic smooth bristles. I have not found any other form near Chicago. In 1878 a few plants of the variety were discovered growing with the typical species at Torch Lake, Mich. Having observed it in four different places, and for several years, the variety may be regarded as constant, and be distinguished as above.

Fimbristylis autumnalis, Roem. & Schult. At Whiting. Nut pale yellow, prominently covered with stipitate tubercles or wart-like projections. Torrey, in his "Cyperaceae" under *Trichelostylis mucronulatus*, mentions these tubercles, and Chapman, in his "Flora of the Southern States." Grows in abundance in moist sands.

Hemicharpha subsquarrosa, Nees, var. *Drummondii*, Gray. At Millers, Ind.

Carex Emmonsii, Dew. A variety with the bracts considerably longer than the culm. At Whiting.

Triticum violaceum, Hornemann. Not uncommon at Whiting.

Selaginella selaginoides, Link. Mackinac, in springs above the cliff known as the "Lover's Leap." In Wheeler and Smith's Catalogue only credited to Isle Royal.

Selaginella rupestris, Spring. Grows on sand hills at Millers, at Manistee, and near Traverse City. Associated at Millers and Manistee with *Hudsonia tomentosa*. The little plant is often nearly buried in the shifting sands.

Lechea Novæ-Cæsareæ, C. F. Austin. In open sandy woods, near Tolleston, Lake Co., Ind. Having found, last September, what I took to be this plant, specimens were sent to Wm. H. Leggett, of New York, who makes a specialty of this genus, and the determination was sustained.