

NOTES UPON SOME LITTLE-KNOWN MEMBERS OF THE INDIANA FLORA.

(PAPER NUMBER THREE.)

BY CHARLES PIPER SMITH.

Since offering my second paper under the above heading, my friend, Mr. Harley H. Bartlett, has been able to come to definite conclusion concerning certain of our Indiana collections not worked upon in time for inclusion in my last report. As before, his decisions are the result of careful study and comparison at the Gray Herbarium, where he has received the assistance of Mr. Fernald and Dr. Robinson whenever occasion demanded. Through the kindness of Dr. Schneck, Mr. Bartlett has had the pleasure of examining that gentleman's specimens of the genus *Juncus*, and I comply with my friend's request to note certain facts gleaned from his study of this interesting collection.

Specimens verifying these records are in the herbarium of Mr. Bartlett, except in the cases where it is specifically stated that no specimens were preserved.

Sorghum Halepense (L.) Willd. (Marion County.)

Occasional about Indianapolis. Included in the State Catalogue,* but no definite station noted. Taken August 20, 1904, by Mr. Bartlett.

Cyperus rivularis Kunth. (Marion County.)

Taken along Fall Creek, August 20, 1903, by Mr. Bartlett. In sandy soil; rare.

Carex pallescens L. (Madison County.)

A sedge so named by Mr. Bartlett was taken by me August 10, 1904, at a springy place by the File Works, Anderson. As this species is not recorded from Indiana, additional material is desired, since the material preserved is limited to the fruiting heads and perigynia in my seed collection.

Carex cephaloidea Dewey. (Tippecanoe County.)

Mature fruit of a sedge was obtained by me June 7, 1904, along the "Monon," just south of Lafayette. The characters of the whole plant were noted and later the material was referred to this species,

*Flowering Plants and Ferns of Indiana in State Geol. Report, 1899; 626.

by use of Britton and Brown's Flora. Specimens were not preserved, but the material placed in my seed collection has been worked upon by Mr. Bartlett, who reports that as far as can be determined from the fruiting heads and perigynia alone, my determination is correct. Only three or four tussocks of this sedge were noted, and the plant may owe its presence there to railroad introduction. The species has not been reported from the State.

Carex cephalophora Muhl. (Marion, Madison and Delaware Counties.)

Taken by me in these counties in 1904. Kosciusko and Vigo seem to be the only other counties from which this species is recorded.

Carex festucacea Willd. (Pulaski County.)

Mature fruit, etc., so determined by me was taken one mile south of Ripley post-office. Mr. Bartlett reports that this determination also seems to be correct. The sedge was abundant along ditches by the roadside, and ought to be common elsewhere in the State, although as yet unrecorded.

Juncus tenuis anthelatus Wiegand. (Posey County.)

Plants so determined by Mr. Bartlett were sent to him by Dr. Schneck, by whom they were collected June 7, 1881.

Juncus monostichus Bartlett.* (Madison County.)

This species was described from material collected by the writer August 6, 1904, south of Anderson. Using Britton and Brown's Flora, I could not identify the plant, but thought that it might be *J. secundus* Beauv. or *J. dichotomus* Ell. I turned the material over to Mr. Bartlett, who found it most nearly related to *J. Greenei* Oakes & Tuckerman, as shown by its seed characters. Since the original description was published, Mr. Bartlett has found that capsules of the type contain at least as many as thirty seeds, which means a greater productiveness than at first supposed. (C. P. Smith No. 140, in Herb. Bartlett and Gray Herb.)

Juncus dichotomus Ell. (Posey County.)

Of the Schneck Junci, the only Wabash Valley plant labeled *J. dichotomus* proved to be immature *J. tenuis*, so this species should be dropped from the State Catalogue (p. 675).

Juncus brachycarpus Engelm. (Wabash County, Ill.)

In Dr. Schneck's collection, from Mt. Carmel, Ill. Should be looked for on the Indiana side of the river.

**Rhodora*, 8: 50, 1904.

Nasturtium sessiliflorum Nutt. (Tippecanoe and Marion Counties.)

Reported in State Catalogue (p. 767) as "occurring only in the southwestern counties." I found it abundant over several acres of the Wabash bottom-land south of Lafayette, June 2, 1903. Mr. Dorner and I found also a few stray plants along the stream in "Happy Hollow," West Lafayette, later in the same month and year. The plants were all matured and through blooming at these dates. Mr. Bartlett took the species July 30, 1904, near Indianapolis, the flowering period being then about over.

Cardamine parviflora Pursh. (Clark County.)

Found on the "Knobs" of the State Forest Reservation, May 26, 1904. Plants on exposed knob-tops and slopes were simple or nearly so and from one to three inches high. In more shaded spots, lower down, were much-branched plants three to ten inches high. (C. P. Smith No. 118, in Herb. Bartlett.)

Cardamine flexuosa With. (Tippecanoe and Marion Counties.)

Not in the State Catalogue, but may have been reported at the last meeting of the Academy, of which the "Proceedings" have not yet reached me. Taken near Lafayette by Miss Gates, Mr. Dorner, and myself, in May 1903. Taken about the same time, near Indianapolis, by Mr. Bartlett. In looking through a collection made several years ago, near Indianapolis, Mr. Bartlett noted one sheet of this plant labeled "*Sisymbrium officinale*."

Agrimonia pumila Muhl. (Marion County.)

Taken by Mr. Bartlett August 14, 1904, near Indianapolis. This adds to my Clark County record of 1903.* Mr. Bartlett thinks that this so-called species is a mere depauperate form of *A. microcarpa* Wallr. I at first considered my Clark County plant to be a form of *A. mollis* (T. & G.) Britton, with which I found it growing.

Lupinus perennis occidentalis Wats. (Laporte County.)

This is the form about Michigan City. Taken June 18, 1904; determined by Mr. Bartlett, and verified by Dr. B. L. Robinson. The typical *L. perennis* L. was taken by me between Mishawaka and South Bend, June 17, 1904 (No. 126). The variety blooms a little later than the type. (C. P. Smith No. 130, in Herb. Bartlett.)

*Proc. Ind. Acad. Sci., 1903; 134.

Oralis cymosa Small. (Marion County.)

This is the common "sour-grass" about Indianapolis. *O. stricta* L. is also present, but is rather rare.

Gaura parviflora Dougl. (Marion County.)

Just before leaving Indianapolis, September, 1904, I ran across what is believed to be this species along Harding Street between the Terre Haute divisions of the Big Four and the Vandalia Lines. The plant was abundant and conspicuous. It was in fruit and it took some search to get even a belated sprig with a few flowers; but such was obtained and referred to Britton and Brown's Flora, the identification seeming to be unquestionable. Specimens were not preserved, except the mature fruit which is now in my seed collection. This species is native from Nebraska and Oregon to Mexico, and belongs to the list of western plants brought eastward by the railroads. Its abundance at this place indicated that it would hold its own if not soon exterminated by building and street improvement.

Sanicula trifoliata Bicknell. (Marion County.)

Taken by Mr. Bartlett July 4, 1903. Reported from Indiana by Britton and Brown, but not included in the State Catalogue. Mr. Bartlett comments, "This plant grows on river bluffs and wooded hill-sides, whereas *S. Canadensis* is generally found in wooded bottom-land. The two species appear to intergrade somewhat with one another, but never, so far as observed, with *S. Marylandica*."

Apocynum cannabinum glaberrimum DC. (Marion County.)

Confined to gravel shores along White River. Taken August 24, 1903, by Mr. Bartlett.

Ruellia ciliosa Pursh. (Madison County.)

Specimens taken along White River, at Anderson, August 6, 1904, have all the leaves verticillate in threes. Such variation from strictly opposite leaves is very rare in the Acanthaceae. (C. P. Smith No. 141, in Herb. Bartlett.)

Galium Claytoni Michx. (Marion County.)

Taken July 10, 1904, by Mr. Bartlett, near Indianapolis.

Vernonia Drummondii Schuttliw. (Marion County.)

Taken at Mallott Park, August 14, 1904, by Mr. Bartlett. This is a State record and eastward extension of range.