

NEW AND NOTABLE MEMBERS OF THE INDIANA FLORA.

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The following notes deal with the distribution and the ecological condition of the species mentioned. They pertain for the most part to the flora of Putnam County.

The determinations have been verified by authorities, and the specimens are deposited in the National Herb., Gray Herb., and my herbarium.

The nomenclature follows the Vienna Code as exemplified in the seventh edition of Gray's Manual.

The seventeen species and varieties that are recorded as new to the Indiana flora are marked with an asterisk (*).

Ophioglossum vulgatum L.

Putnam County. Four miles south of Russellville a large colony of this plant was found June 4, 1911, on a wooded hillside along Raccoon Creek.

The plants were very thrifty, from 24 to 32 cm. in height, the leaves 3.5-4 cm. wide, and 6-7 cm. long. The sterile regments were attached below the middle.

Woodsia obtusa (Spreng.) Torr.

Putnam County. Grows sparingly on sandstone ledges. September 4, 1911.

Aspidium noveboracense (L.) SW.

Parke County. Low woods in moist soil. Small colony was found one mile north of Ferndale, September 11, 1910.

Asplenium Thrichomanes L.

Putnam, Parke and Montgomery counties. Frequent on dry sandstone ledges, found with *Polyodium vulgare*.

**Marsilea quadrifolia* L.

Putnam County, south of the Vandalia station at Greencastle in an old pond. This species is quite abundant on one side of the pond, but is rapidly disappearing, due to the draining of the pond and the subsequent encroaching of the vegetation, which is filling up the pond and eventually choking out the *Marsilea*. This plant was first detected by Dr. Banker of De Pauw University in 1904. Possibly introduced by some botanist.

**Paspalum stramineum* Nash.

Putnam County. Open, dry hillsides and along railways, October 4, 1911. The range as given in Gray's Manual is Nebraska to Missouri and southward.

Panicum huachucae Ashe.

Putnam County, dry open hillsides, June 11, 1911. Reported from Indiana at Clarke Junction (Bebb), Gibson (Hill), (Hitchcock and Chase.) —(N. A. Species of *Panicum*, p. 216).

Aristida tuberculosa Nutt.

Putnam County, along old Big Four Railway, August 8, 1911. "In sandy soil along the lake beach. Lake (Hill)."—(State Catalog, p. 633.)

Diarrhena diandra (Michx.) Wood.

Rich soil in a wooded ravine along Raccoon Creek, Putnam County, July 9, 1911. Reported only from counties bordering the Ohio River and lower Wabash.

Bromus purgans L.

Putnam County, rich hillside along Raccoon Creek. First detected as a member of our flora by G. W. Wilson.—(Proc. Ind. Acad. Sci. 1905, 166.)

Cyperus aristatus Roth.

Southern part of Putnam County on wet sandy shore of Mill Creek, August 10, 1911.

**Eleocharis palustris glaucescens* (Willd.) Gray.

Putnam County, one mile east of Russellville, in ditch along C. H. & D. Railway. In flower May 22, 1911.

Carex cristata Schwein.

Putnam County, three and one-half miles south of Russellville, in Everman's Swamp along Raccoon Creek, June 11, 1911, with *Carex stipata*, *C. cephalophora* and *Scirpus validus*.

**Carex virescens Swainii* Fernald.

Putnam County, on rocky, wooded hillside at Fern, August 8, 1911.

**Juncus effusus solutus* Fernald and Weigand.

Putnam County, near Limesdale, in an abandoned rock quarry, October 5, 1911.

Maianthemum canadensis Desf.

Putnam County, two miles northeast of Bainbridge, on dry hillside, associated with *Tsuga canadensis*, June 25, 1911. Most southern station known in the State.

Rauunculus circinatus Sibeth.

Putnam County, three miles east of Russellville. It is abundant in a bayou of Raccoon Creek. In flower May 22, 1911. Reported only from Hamilton County.—(State Catalog, p. 757.)

Conringia orientalis (L.) Dumort.

Putnam and Montgomery counties, along the Monon R. R. In flower May 6, 1911. First reported by G. W. Wilson.—(Proc. Ind. Acad. Sci. 1905; 171.) Becoming more abundant each year.

**Sisymbrium officinale leiocarpum* DC.

Putnam County in cultivated grounds with the type, but far more abundant.

**Hesperis matronalis* L.

Montgomery County, along roadside near Crawfordsville, August 11, 1911.

**Hydrangea cinerea* Small.

Posey County, July 7, 1910 (C. C. Deam); Montgomery County (Deam and Grimes), July 23, 1911. Putnam County, two miles northeast of Bainbridge, on Knobstone shale along Walnut Creek. In flower August 15, 1911. Flowering later than *H. arborescens*, this is the predominating species wherever found. The range in Gray's Manual is South Carolina and Georgia to Tennessee and Missouri.

**Pyrus ioensis* (Wood) Bailey.

Putnam County, two miles west of Greencastle, on embankment of old Big Four Railway. Fruit was collected from a single individual about eight feet tall, August 27, 1911.

**Crataegus pruinosa* (Wendl) K. Koch.

Putnam County, on dry wooded hillside along Raccoon Creek. This is the first species in our area to ripen its fruit, mature fruit having been collected July 30, 1911.

**Geum flavum* (Porter) Bicknell.

Putnam County, four miles south of Russellville, in moist wooded ravine near Raccoon Creek. Taken at only one other station. Infrequent, July 10, 1910.

Rosa blanda Ait.

Putnam County, near Greencastle, on dry bank along Big Four Railway, in full flower June 4, 1911. "In a few localities in the rocky hills of the southern counties."—(State Catalog, p. 789.)

Desmanthus illinoensis (Michx.) MacM.

Putnam County, on embankment of old Big Four Railway, west of Greencastle, August 8, 1911. Well established at two stations along the railway. "I have seen specimens from no other region (Clark County). In my opinion the form is of rare occurrence in the southern and southwestern counties. If found it would probably be on alluvial banks or in prairies."—(State Catalog, p. 819.) Possibly a migrant in Putnam County.

Strophostyles pauciflora (Benth.) Wats.

Putnam County, near Fern, along the old Big Four Railway. This interesting species is frequent along the roadside for about a quarter mile, where it is associated with *Euphorbia heterophylla*, *Medicago sativa* and *Aristida tuberculosa*. The leaves varied from 2-4.5 cm. long, the pods were from 2 to 2.5 cm. long and 5 mm. wide. Stipules 3 mm. long. The peduncles varied from 2 to 10 cm. long, the seeds were grayish brown in color and 3-3.5 mm. long.

The most northern station known in Indiana, having been reported only from Gibson and Posey counties, where Dr. Schneck recorded it as rare.

Croton glandulosus septentrionalis Muell. Arg.

Putnam County, three miles west of Greencastle on right of way of old Big Four Railway. Flowering and fruiting specimens collected August 27, 1911. Local and rare. Previously reported only from Daviess County.

Croton monanthogynus Michx.

Putnam County, frequent five miles west of Greencastle along old Big Four Railway. August 8, 1911.

Hypericum Ascyron L.

Putnam, Parke and Montgomery counties, in alluvial soil and on banks of streams. A beautiful species deserving cultivation.

**Vaccinium corymbosum amoenum* (Ait.) Gray.

Montgomery County, on Devil's Back Bone at Pine Hills. Collected in fruit July 23, 1911. A single individual about one meter tall, grows on the very dry ledge, associated with *Tsuga canadensis*.

**Ligustrum vulgare* L.

Montgomery County, along roadsides and in waste places. June 25, 1911.

**Asclepias Sullivantii* Engelm.

Putnam County, one mile west of Bainbridge, in a pasture. In full flower, June 25, 1911. Two additional stations have since been detected near Russellville, associated with *A. syriaca*.

Verbena angustifolia Michx.

Putnam County, in a ditch along the C., H. & D. Railway near Russellville. In flower July 10, 1911.

**Verbascum Blattaria albiflorum* Ktze.

Putnam and Montgomery counties. Common in old fields and pastures. The form with purplish corolla is frequent throughout the State, while the type with yellow corolla is infrequent or rare.

Ruellia ciliosa Pursh.

Putnam County, four miles south of Bainbridge along the Monon Railway. In flower August 14, 1911. Less frequent than *R. strepens*.

Viburnum molle Michx.

Putnam County, three and half miles south of Russellville, on rich wooded hillside along Raccoon Creek. Collected in flower June 14, and mature fruit September 4, 1911. Frequent throughout the county on wooded slopes adjoining streams. A shrub 3-4 m. high, easily recognized by its gray exfoliating bark.

Erigeron divaricatus Michx.

Putnam and Parke counties, on dry exposed hillsides. Abundant wherever found. I have seen this species in Russell and Washington townships in Putnam County, and near Ferndale in Parke County. "Reported only from the extreme southern part of the State, where it is found on the banks of streams."—(State Catalog, p. 978.)

Antennaria fallax Greene.

Putnam County, three miles south of Russellville. Poor soil on dry hillside. April 30, 1911. Previously taken by H. H. Bartlett in Marion County.—(Proc. Ind. Acad. Sci., 1904; 303.)

**Antennaria neglecta* Greene.

Putnam County, three and half miles south of Russellville. Poor soil in an old field, April 30, 1911. More frequent than the preceding species.

**Galinsoga parviflora hispida* DC.

Putnam County, in town of Russellville, in cultivated grounds, August 18, 1911. Associated with *Malva rotundifolia*.

Russellville, Ind., December, 1911.

