

## PLANTS NEW OR RARE IN INDIANA, XV

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Specimens of the plants reported in this paper are in the Deam Herbarium and the determinations have been checked by specialists.

*Thelypteris Filix-mas* (L.) Nieuwland, (*Aspidium Filix-mas* (L.) Sw. of Gray's Man. ed. 7 and *Dryopteris Filix-mas* (L.) Schott of Britton and Brown's Ill. Flora, ed. 2.) This species was reported for Indiana in 1881 by the Editors of the Botanical Gazette without locality in a catalogue of the plants of Indiana. It was next reported for Jefferson County successively by J. M. Coulter, A. H. Young, and C. R. Barnes. Stanley Coulter, in his catalogue of the plants of Indiana published in 1900, repudiated all records without comment and placed the species in a doubtful list. I have a specimen from Wells County which was named for me by a specialist as belonging to this species and I reported it as new to the state in the Proc. Ind. Acad. Science for 1905. I have re-examined this specimen and I now refer it to *Thelypteris Goldiana* (Hook.) Nieuwl. Since the species is not listed in Schaffner's flora of Ohio or in Beal's flora of Michigan and its general range is far north of Indiana, I believe the species should be dropped from our flora.

*Pteretis nodulosa* (L.) Raf., (*Onoclea Struthiopteris* (L.) Hoffm. of Gray's Man. ed. 7 and *Matteuccia Struthiopteris* (L.) Todaro of Britton and Brown's Ill. Flora, ed. 2.) This species was first reported for Indiana in 1881 in a catalogue of the plants of Indiana published by the Editors of the Botanical Gazette. The only data given is that the specimen was from Montgomery County. The same data appeared in Coulter's catalogue of the plants of Indiana and also in Greene's fern flora of Indiana. Pepon in his flora of the Chicago region mentions this species on page 127 in a general write up of the species of the region but does not specifically say it occurs in Indiana in his flora. This year I was guided by Mr. and Mrs. Walter Neff of Delphi to a large colony of it on an alluvial wooded flat in a woods about two and a half miles southeast of Lake Cicott in Cass County. The collection is my 47,140 and a duplicate is deposited in the Gray Herbarium.

*Eleocharis calva* Torrey. (*Eleocharis palustris* var. *calva* (Torr.) Gray of Gray's Manual.) I have it from Allen, Boone, Fountain, Fulton, Jennings, Lagrange, Marshall, Noble, Steuben, and Tipton counties. This species was first reported for the state by Hill in the Botanical Gazette 8:187. 1883, for the shore of Cedar Lake, Lake County.

*Eleocharis ovata* (Roth) R. & S. (See *Rhodora* 31:211-214. 1929.) The general range of this species is to the north of Indiana. Newton County, Sept. 17, 1929, No. 47,825. In a dredged ditch about four miles southeast of Conrad. Rare here.

*Eleocharis Smallii* Britton. I have this species from Cass, Elkhart, Fulton, Jasper, Lagrange, Lake, Laporte, Newton, Noble, Owen, Steuben, Sullivan, Vigo, Warrick, and Wells counties.

*Eleocharis Torreyana* Boeckl. Jasper County, Sept. 21, 1928, No. 46,420. In the bottom of a dry sandy roadside ditch about two miles southeast of Tefft.

Also nearby in a bare place in a dried up marsh where it was associated with *Fimbristylis puberula*, *Hypericum adpressum*, and *Lycopus sessilifolius*.

*Scirpus cyperinus* var. *Andrewsii* Fernald. Allen County, Aug. 22, 1929, No. 47,635. In a small pond just west of an old school house in the Eli Schlatter woods about three miles northwest of Cedarville. The typical form grew here also but was not quite so mature.

*Ranunculus oblongifolius* Ell. Dubois County, May 29, 1926, No. 43,073. Frequent in bare open places in the Hunley bottoms about one mile northeast of Huntingburg. Posey County, May 23, 1911, No. 8,311. Frequent in a wet stubble field about four miles southwest of Mt. Vernon. In 1926 and 1929 I found it to be a common plant in a hard white clay soil in a flat undrained fallow field on the Dan Schreber farm about five miles south of Caborn. I found it also along Big Creek about one mile southeast of Wadesville.

*Ranunculus pusillus* Poiret. This species is closely allied to the preceding with which it might be confused. Our only report of it for the state is that given in Coulter's catalogue of the plants of Indiana. He reports it for Spillman from Knox County. I am referring my specimens 20,372 and 40,184 to this species. They were collected about the middle of May on the border of a pond in a low flat woods about one mile southeast of Palmyra. When collected the plants were in water about six inches deep. In September the area was again visited and at that time it was dry and grown up with sedges and other plants. I also noted it as common around a pond of about two acres about two miles southeast of Palmyra.

*Duchesne indica* (Andr.) Foeke. Spencer County, June 9, 1929, No. 46,756. Common in the talus of a sandstone bluff along the Ohio River in Rockport. I reported this species for Porter County in Proc. Ind. Acad. Science 35:1918. 1926. I am now referring this specimen to *Rubus pubescens* Raf.

*Trifolium reflexum* var. *glabrum* Lejacono. I reported this variety for Posey County in Proc. Ind. Acad. Sci. 1920:227. 1921. I now have the variety from Clark, Martin, Posey, Spencer, and Vigo counties. It is distinguished from the species by its glabrous calyx lobes. The variety was described in 1883 in an Italian publication and the authors of our manuals overlooked it. The species has been reported for Franklin, Marion, and Vigo counties. I have the Vigo County specimen and it belongs to the variety. No doubt all records for the species should be referred to the variety.

*Lathyrus venosus* var. *intonsus* Butters and St. John. (Rhodora 19:158-159. 1917.) I have this variety from Fulton, Kosciusko, Lagrange, Lake, Miami, Porter, and Steuben counties. Dr. Lyon also has it from Laporte County. I have the typical species from Harrison County where it is abundant in the talus of a bluff along Blue River about a half mile north of White Cloud. I also have a specimen from Clark County with longer and narrower leaflets than either the typical or varietal forms which I am not able to place.

*Crotonopsis elliptica* Willd. (Pennell, F. W.: The genus *Crotonopsis*. Bull. Torrey Bot. Club 45:477-480. 1918.) Spencer County, Sept. 28, 1929, No. 47,973. In a hard white clay soil in a flat undrained open woods and in an adjacent forty acre fallow field about four miles northwest of Chrisney. This area is almost level and wooded with post and pin oaks. It is so poor that the cleared land has been abandoned. In the fallow field the species was very abundant and rare to infrequent in the open woods and absent in the thicker parts of the woods. This species has a range from Connecticut to northern Florida, west to eastern Kansas and central Texas.

*Gaura Michauxii* Spach. Daviess County. Sept. 21, 1929, No. 47,902. On a sand hill in an open spot on the south side of a black oak woods, owned by Mr. Yates, about one mile southwest of Plainville. It was associated with *Sporobolus canovirens*, *Bouteloua curtipendula*, *Andropogon scoparius*, *Stylosanthes biflora*, *Liatris squarrosa*, *Kuhnia eupatorioides*, *Aster patens*, and other plants that usually have a distinct habitat. The range of this species is Virginia to Kansas, south to Florida and Texas.

*Chaerophyllum Tainturieri* Hooker. Posey County, June 9, 1929, No. 46,769. Common in alluvial soil along the Louisville and Nashville Railroad about six miles west of Solitude.

*Penstemon tubaeformis* Nuttall. Daviess County, June 12, 1929, No. 46,852. On a sand hill about one mile south of Hyatt, associated with black, white, and post oaks. The range of this species is Missouri, Kansas, and Arkansas.

*Madia capitata* Nuttall. Porter County, July 21, 1929, No. 57,308 of the Field Museum. About a dozen plants on an open bank, Dune Forest near Tremont. Collected by Paul C. Standley of the Field Museum who has permitted me to report this species for him.

*Helianthus altissimus* L. Lagrange County, Aug. 26, 1924, No. 14,773. At the base of a wooded slope about two and a half miles east of Howe. Also No. 14,992 collected on the low border of the south side of Long Lake northwest of Wolcottville.

*Helianthus borealis* E. E. Watson. Lagrange County, Aug. 30, 1916, No. 20,963A. Moist sandy roadside one and a half miles east and a half mile south of Mongo. Steuben County, Sept. 20, 1914, No. 15,493. In a dry woods on the east side of Lake James. Collected also in 1904 in low ground in a thick woods on the east side of Clear Lake.

*Helianthus exasperatus* E. E. Watson. Laporte County, Sept. 15, 1921, No. 34,849. In a prairie habitat five miles northeast of Laporte. Warren County, Aug. 31, 1916, No. 21,603. Dry roadside two miles northwest of Rainsville.

*Helianthus leptocaulis* (S. Wats.) Blake. Posey County, Aug. 15, 1919, No. 29,081. In a hard clay soil in a flat undrained post oak woods on the south side of Half Moon Pond about ten miles southwest of Mt. Vernon. Tipton County, Sept. 3, 1914, No. 15,355. In a prairie habitat along the right of way of the Lake Erie Railroad about a half mile west of Goldsmith.

*Helianthus Maximiliani* Schrad. Fulton County, Sept. 17, 1926, No. 43,673. In a prairie habitat in rather sandy soil along the Nickel Plate Railroad about two miles north of Rochester. St. Joseph County, Aug. 24, 1925, No. 42,386. Roadside three and a half miles south of Granger.

*Senecio vulgaris* L. Delaware County, July 5, 1919. A common weed on a private estate in north Muncie. Wells County, June 22, 1929, No. 47,045. A common weed in some lots about two blocks east of the interurban power house.

*Cichorium Intybus* forma *alba* Farwell. Allen County, Aug. 22, 1929, No. 47,639. A common weed in dry clay soil along the roadside one mile north and one mile west of Leo. Only a few white-flowered plants were noted among many blue-flowered ones for a distance of nearly a half mile.

*Crepis capillaris* (L.) Wallr. Wells County, Oct. 28, 1923. Frequent in Fairview Cemetery at Bluffton. The sexton told me at that time that the plant had been there several years. I visited this place late in 1929 and I found that it had spread to all parts of the cemetery.

