

## Additions to the Flora of Sullivan County, Indiana

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During the summers of 1973, 1974 and 1975, the author conducted a floristic study of the vascular plant populations on a 5000 acre industrial site located west of Fairbanks in northwestern Sullivan County, Indiana. This study resulted in the collection of 188 species of vascular plants, including 3 ferns and fern allies, 1 gymnosperm, 55 monocots, and 129 dicots, not previously reported by Deam (1940). Records published subsequent to the "Flora of Indiana" include only an additional 14 species (Deam et al. 1940a, 1940b, 1944, 1945, 1949; Potzger and Starcs 1954). Including the species reported here, the vascular flora recorded for the county totals 721 species; 15 ferns and fern allies, 1 gymnosperm, 201 monocots and 504 dicots.

Of the 188 species reported in this paper, all but one have been previously recorded for Indiana. New stations are reported for the relatively uncommon *Liparis loselii* and *Spiranthes ovalis*. The collection of *Juncus secundus* (Ebinger, 13039) represents the second known Indiana station for this plant and *Naias minor*, an Asiatic species, is new to the state.

In the following list of plants, each species is followed by a brief note concerning its habitat, the collectors name and the collection number. The nomenclature for all species follows Fernald (1950). Voucher specimens were deposited in the Stover Herbarium of Eastern Illinois University (EIU) and the Herbarium of WAPORA, Inc. 6900 Wisconsin Avenue, Washington, D.C.

### Acknowledgments

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### Annotated List of Species

#### FERNS AND FERN ALLIES

##### Equisetaceae

*Equisetum arvense* L. Marsh. W. McClain 1106.

##### Ophioglossaceae

*Ophioglossum vulgatum* L. Immature woods. W. McClain 1129.

##### Polypodiaceae

*Addiantum pedatum* L. Mature woods. J. Ebinger 12559.

##### Cupressaceae

*Juniperus virginiana* L. Roadside. J. Ebinger 12599.

#### DICOTYLEDONEAE

##### Aristolochiaceae

*Asarum acuminatum* (Ashe) Bickn. Mature woods. J. Ebinger 12549.

##### Aizoaceae

*Mollugo verticillata* L. Wabash River floodplain. W. McClain 586.

##### Anacardiaceae

*Rhus glabra* L. Roadside. J. Ebinger 13001.

*Rhus radicans* L. Fallow field. W. Pichon 236.

## Apocynaceae

*Apocynum cannabinum* L. Roadside. W. McClain 453.

## Araliaceae

*Panax quinquefolium* L. Mature woods. W. McClain 546.

## Asclepiadaceae

*Asclepias purpurascens* L. Roadside. W. McClain 1304.

*Asclepias syriaca* L. Roadside. W. Pichon 504.

## Balsaminaceae

*Impatiens biflora* Walt. Marsh. W. Pichon 498.

## Betulaceae

*Carpinus caroliniana* Walt. Mature woods. J. Ebinger 12608.

## Callitrichaceae

*Callitriche terrestris* Raf. Cultivated field. J. Ebinger 12548.

## Campanulaceae

*Specularia perfoliata* (L.) A.D.C. Fallow field. J. Ebinger 12927.

## Caprifoliaceae

*Lonicera japonica* Thunb. Roadside. W. Pichon 509.

*Sambucus canadensis* L. Roadside. W. McClain 467.

## Caryophyllaceae

*Cerastium nutans* Raf. Cultivated field. J. Ebinger 12527.

*Cerastium viscosum* L. Fallow field. J. Ebinger 12519.

*Cerastium vulgatum* L. Cultivated field. J. Ebinger 12528.

*Dianthus armeria* L. Fallow field. J. Ebinger 13012.

*Lychnis alba* mill. Roadside. J. Ebinger 12602.

*Sagina decumbens* (Ell.) T. & G. Fallow field. W. McClain 1162.

*Silene virginica* L. Mature woods. W. McClain 1192.

*Stellaria media* (L.) Cyrillo. Fallow field. W. McClain 1139.

## Chenopodiaceae

*Atriplex hastata* (L.) Gray. Fallow field. W. McClain 539.

## Compositae

*Antennaria plantaginifolia* (L.) Hook. Edge of woods. W. McClain 1165.

*Aster shortii* Lindl. Immature woods. W. McClain 673.

*Aster simplex* Willd. Wabash River floodplain. W. McClain 681.

*Bidens polylophus* Roadside. W. McClain 561.

*Chrysanthemum leucanthemum* L. Roadside. W. Pichon 271.

*Cichorium intybus* L. Roadside. J. Ebinger 13041.

*Cirsium discolor* (Muhl.) Spreng. Roadside. W. McClain 456.

*Helianthus decapetalus* L. Immature woods. W. McClain 537.

*Prenanthes alba* L. Immature woods. W. McClain 699.

*Pyrrhopappus carolinianus* (Walt) D.C. Roadside. W. McClain 1013.

*Senecio aureus* L. Fallow field. W. McClain 1120.

*Senecio pauperulus* Michx. Cultivated field. J. Ebinger 12564.

*Solidago hirtella* (Greene) Bush. W. McClain 796.

*Taraxacum officinale* Weber. Fallow field. W. McClain 1117.

*Verbesina alternifolia* (L.) Britt. Fallow field. W. McClain 475.

*Xanthium italicum* Moretti. Wabash River floodplain. W. McClain 458.

## Convolvulaceae

*Convolvulus arvensis* L. Roadside. W. McClain 668.

*Ipomea pandurata* (L.) G.F. Mey. Roadside. W. McClain 458.

## Cornaceae

*Cornus drummondii* Meyer. Roadside. W. McClain 540.

## Cruciferae

*Arabidopsis thaliana* (L.) Heynh. Immature woods. W. McClain 1133.

*Barbarea vulgaris* R. Br. Fallow field. W. McClain 1119.

*Brassica nigra* (L.) Koch. Fallow field. J. Ebinger 12999.

*Capsella bursa-pastoris* (L.) Medic. Fallow field. W. McClain 1137.

*Descurainia brachycarpa* (Richards) Fern. Cultivated field. W. Pichon 66.

*Draba verna* L. Fallow field. W. McClain 1069.

*Iodanthus pinnatifidus* (Michx.) Steud. Fallow field. W. McClain 1198.

*Sisymbrium officinale* (L.) Scop. Fallow field. J. Ebinger 12490.  
*Thlaspi arvense* L. Fallow field. W. McClain 1141.

## Hydrophyllaceae

*Hydrophyllum appendiculatum* Michx. Mature woods. J. Ebinger 12566.  
*Phacelia bipinnatifida* Michx. Roadside. J. Ebinger 12565.

## Hypericaceae

*Hypericum sphaerocarpum* Michx. Roadside. W. McClain 672.

## Juglandaceae

*Juglans nigra* L. Roadside. J. Ebinger 12970.

## Labiatae

*Lamium amplexicaule* L. Fallow field. W. McClain 1138.  
*Leonurus cardiaca* L. Immature woods. J. Ebinger 12976.  
*Mentha piperita* L. Marsh. W. McClain 578.  
*Monarda bradburiana* Beck. Immature woods. W. McClain 251.  
*Stachys tenuifolia* Roadside. J. Ebinger 12977.  
*Stachys tenuifolia* Willd. Wabash River floodplain. W. McClain 584.

## Leguminosae

*Cassia marilandica* L. Fencerow. W. McClain 719.  
*Coronilla varia* L. Roadside. W. McClain 645.  
*Gymnocladus dioica* (L.) K. Koch. Roadside. W. McClain 563.  
*Lespedeza cuneata* (Dum-Cours) G. Don. Roadside. W. McClain 628.  
*Lespedeza stipulacea* Maxim. Fallow field. W. McClain 694.  
*Melilotus alba* Desr. Roadside. W. McClain 461.  
*Melilotus officinalis* (L.) Lam. Roadside. W. McClain 1313.  
*Robinia pseudoacacia* L. Roadside. J. Ebinger 12972.  
*Trifolium hybridum* L. Fallow field. W. McClain 177.  
*Trifolium procumbens* L. Fallow field. W. McClain 1173.  
*Vicia villosa* Koth. Roadside. J. Ebinger 12978.

## Magnoliaceae

*Liriodendron tulipifera* L. Mature forest. H. Parker 278.

## Malvaceae

*Abutilion theophrasti* Medic. Roadside. W. McClain 636.  
*Malva neglecta* Wallr. Fallow field. J. Ebinger 12629.

## Moraceae

*Morus rubra* L. Mature woods. J. Ebinger 12619.

## Onagraceae

*Circaea latifolia* Hill. Immature woods. J. Ebinger 12935.  
*Oenothera biennis* L. Roadside. W. McClain 512.  
*Oenothera laciniata* Hill. Fallow field. W. McClain 1196.

## Orobanchaceae

*Epifagus virginiana* (L.) Bart. Mature woods. W. McClain 734.

## Oxalidaceae

*Oxalis dillenii* Jacq. Fallow field. W. McClain 1161.

## Phytolaccaceae

*Phytolacca americana* L. Fallow field. W. McClain 224.

## Plantaginaceae

*Plantago rugelii* Dcne. Fallow field. W. McClain 517.

## Primulaceae

*Anagallis arvensis* L. Fallow field. W. McClain 245.  
*Centunculus minimum* L. Cultivated field. J. Ebinger 13040.  
*Samolus parviflorus* Raf. Floodplain. W. McClain 685.

## Polygonaceae

*Polygonum aviculare* L. Floodplain. W. McClain 1344.  
*Polygonum cuspidatum* Sieb & Zucc. Roadside. W. McClain 480.  
*Polygonum hydropiperoides* Michx. Moist woods. W. McClain 1044.  
*Polygonum persicaria* L. Fallow field. J. Ebinger 13008.  
*Polygonum scandens* L. Roadside. W. McClain 532.

## Ranunculaceae

- Hepatica acutiloba* DC Mature woods. W. McClain 1088.  
*Isopyrum biternatum* (Raf.) T & G Mature woods. H. Parker 10.  
*Myosurus minimus* L. Cultivated field. W. McClain 1136.  
*Ranunculus recurvatus* Poir. Mature woods. J. Ebinger 12506.  
*Ranunculus septentrionalis* Poir. Mature woods. J. Ebinger 12625.

## Rosaceae

- Agrimonia pubescens* Wallr. Immature woods. W. McClain 443.  
*Agrimonia gryposepala* Wallr. Immature woods. W. McClain 545.  
*Gillenia stipulata* (Muhl.) Baill. Immature woods. W. McClain 254.  
*Potentilla norvegica* L. Fallow field. J. Ebinger 13012.  
*Potentilla recta* L. Fallow field. J. Ebinger 12979.  
*Prunus serotina* Ehrh. Roadside. W. McClain 276.  
*Rubus ostryifolius* Rydb. Roadside. W. McClain 1317.  
*Rubus allegheniensis* Porter. Fallow field. J. Ebinger 12511.  
*Rubus flagellaris* Willd. Immature forest. J. Ebinger 12476.  
*Rubus occidentalis* L. Immature forest. J. Ebinger 12477.

## Rubiaceae

- Galium aparine* L. Mature woods. J. Ebinger 12520.  
*Galium circaezans* Michx. Immature woods. W. McClain 253.  
*Galium concinnum* T. & G. Mature woods. J. Ebinger 12946.  
*Houstonia lanceolata* (Poir) Britt. Roadside. J. Ebinger 12926.

## Rutaceae

- Ptelea trifoliata* L. Mature woods. W. McClain 1210.

## Salicaceae

- Populus grandidentata* Michx. Immature woods. J. Ebinger 13046.

## Scrophulariaceae

- Chelone obliqua* L. Roadside. W. McClain 553.  
*Collinsia verna* Nutt. Mature woods. W. McClain 26.  
*Leucospora multifida* (Michx.) Nutt. Wabash River floodplain. W. McClain 684.  
*Penstemon hirsutus* (L.) Willd. Fallow field. W. McClain 243.  
*Veronica arvensis* L. Fallow field. W. McClain 1146.

## Solonaceae

- Physalis subglabrata* Mack & Bush. Roadside. McClain 928.  
*Solanum carolinense* L. Fallow field. W. McClain 511.

## Tiliaceae

- Tilia americana* L. Mature woods. W. McClain 1209.

## Ulmaceae

- Celtis occidentalis* L. Roadside. J. Ebinger 13004.  
*Ulmus pumila* (Muhl.) Pursh. Roadside. W. McClain 722.

## Umbelliferae

- Erigenia bulbosa* (Michx.) Nutt. Mature woods. W. McClain 1085.  
*Conium maculatum* L. Roadside. J. Ebinger 12923.  
*Daucus carota* L. Roadside. W. McClain 270.  
*Osmorhiza claytonii* (Michx.) Clarke. Mature woods. J. Ebinger 12524.  
*Pastinaca sativa* L. Roadside. J. Ebinger 13042.  
*Sanicula gregaria* Bickn. Fencerow. J. Ebinger 12598.  
*Sanicula canadensis* L. Floodplain. J. Ebinger 12939.

## Urticaceae

- Urtica gracilis* Ait. Floodplain. J. Ebinger 12996.

## MONOCOTYLEDONEAE

## Araceae

- Acorus calamus* L. Marsh. W. McClain 1163.  
*Arisaema triphyllum* (L.) Schott. Mature woods. H. Parker 11.

## Commelinaceae

- Commelina communis* L. Roadside. J. Ebinger 12930.  
*Tradescantia subaspera* Ker. Mature woods. J. Ebinger 12960.  
*Tradescantia virginica* L. Mature woods. W. McClain 1166.

## Cyperaceae

- Carex careyana* Torr. Mature woods. J. Ebinger 12626.  
*Carex annectens* Birhn. Floodplain. J. Ebinger 12488.  
*Carex convoluta* Mack. Fallow field. W. McClain 1168.  
*Carex gracilescens* Steud. Mature forest. J. Ebinger 12522.  
*Carex grisea* Wahl. Mature forest. J. Ebinger 12571.  
*Carex grisea* Wahl. Roadside. J. Ebinger 12956.  
*Carex laxiflora* Lam. Immature woods. W. McClain 1172.  
*Carex oligocarpa* Schk. Mature woods. J. Ebinger 12500.  
*Carex plantaginea* Lam. Immature woods. W. Pichon 48.  
*Carex sparganiodes* Muhl. Fallow field. J. Ebinger 12572.  
*Carex swanii* (Fern.) Mack. Fallow field. W. McClain 1191.  
*Carex vulpinoidea* Michx. Fallow field. H. Parker 230.  
*Scirpus lineatus* Michx. Roadside. J. Ebinger 12950.

## Dioscoreaceae

- Dioscorea quaternata* (Walt.) Gmel. Immature woods. W. McClain 430.

## Graminae

- Bromus latiglumis* (Shear) Hitch. Mature forest. W. McClain 674.  
*Bromus tectorum* L. Fallow field. W. McClain 1207.  
*Diarrhena americana* Beauv. Mature woods. J. Ebinger 12959.  
*Elymus villosus* Muhl. Immature woods. J. Ebinger 12942.  
*Eragrostis capillaris* (L.) Nees. Roadside. W. McClain 602.  
*Festuca elatior* L. Fallow field. W. McClain 188.  
*Festuca octoflora* Walt. Immature woods. W. McClain 1185.  
*Muhlenbergia frondosa* (Poir) Fern. Roadside. W. McClain 486.  
*Panicum dichotomum* L. Fallow field. J. Ebinger 12944.  
*Panicum latifolium* L. Roadside. W. McClain 671.  
*Panicum virgatum* L. Roadside. W. McClain 639.  
*Paspalum ciliatifolium* Michx. Fallow field. W. McClain 608.  
*Paspalum pubiflorum* Rupr. Roadside. W. McClain 528.  
*Phalaris arundinacea* L. Fallow field. J. Ebinger 13010.  
*Poa chapmaniana* Scribn. Roadside. J. Ebinger 12968.  
*Poa sylvestris* A. Gray. Mature forest. J. Ebinger 12567.  
*Spartina pectinata* Link. Ditch. W. McClain 489.  
*Sphenopholis obtusata* (Michx) Scribn. Fallow field. W. McClain 1182.

## Juncaceae

- Juncus interior* Wieg. Fallow field. J. Ebinger 12982.  
*Juncus secundus* Beauv. Cultivated field. J. Ebinger 13039.  
*Juncus tenuis* Willd. Fallow field. W. McClain 1265.  
*Juncus torreyi* Coville. Roadside. W. McClain 451.  
*Luzula multiflora* (Retz.) Lej. Immature woods. W. McClain 1103.

## Liliaceae

- Erythronium albidum* Nutt. Mature woods. W. McClain 1122.  
*Erythronium americanum* Leichtl. Mature woods. W. McClain 1091.  
*Ornithogalum umbellatum* L. Roadside. J. Ebinger 12479.  
*Trillium gleasoni* Fern. Mature woods. W. McClain 1153.  
*Yucca filamentosa* L. Roadside. J. Ebinger 13043.  
*Naias minor* L. Pond. J. Ebinger 13057.

## Orchidaceae

- Aplectrum hyemale* (Muhl.) Torr. Mature woods. J. Ebinger 12622.  
*Liparis lilifolia* (L.) Rich. Immature woods. W. McClain 429.  
*Liparis loeselii* (L.) Rich. Marsh. W. McClain 1186.  
*Spiranthes ovalis* L. Mature woods. W. McClain 730.

## Typhaceae

- Typha angustifolia* L. Roadside ditch. W. McClain 466.  
*Typha latifolia* L. Roadside ditch. W. McClain 465.

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