

BOTANICAL FIELD STUDIES IN THE SOUTHERN TIP OF ILLINOIS

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ABSTRACT.—Intensive botanical field work in Pope, Johnson, and Massac counties revealed several unusual records for Illinois vascular plants. Reported as new to Illinois are *Cornus amomum*, *Panicum condensum*, *Panicum hians*, and *Panicum stipitatum*. Other new or rare southern Illinois species are recorded.

This paper reports the results of intensive botanical field work in Pope, Johnson, and Massac counties during 1965. Several areas seldom visited by botanists provided a few new records for Illinois and numerous local records. The state records and the more significant local records are enumerated in this paper. One record from adjacent Alexander County is reported. All specimens are in the herbarium of Southern Illinois University (SIU). The map, showing the collecting sites

listed in this paper was prepared by the Cartographic Office, Mississippi Valley Investigations, Southern Illinois University (Fig. 1). A description of three of these areas follows:

Mermet Wildlife Refuge is a state-maintained conservation area of low, marshy woods surrounding a sluggish fishing lake in Massac County. The lake supports such vegetation as *Limnobium spongic*, *Utricularia gibba*, and *Jussiaea diffusa*. In several areas the lake margin merges into a swampy woods. In one such area, two unusual Illinois shrubs occur. These are the virginia willow (*Itea virginica*) and storax (*Styrax americana*). In another such area, a large stand of royal fern (*Osmunda regalis*) occurs on the forest floor. Such a habitat for this usually moist cliff-edge species of southern Illinois is

- 1 - *Panicum hians*
- 2 - *Panicum stipitatum*
- 3 - Split Rock Hollow
- 4 - Rock (village) and Millstone Knob
- 5 - Mermet Wildlife Refuge
- 6 - *Cornus amomum*
- 7 - Old Baldy
- 8 - Massac Tower

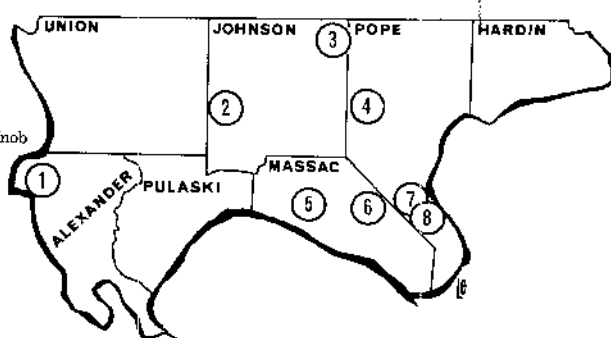


FIGURE 1.—Map of the seven southern counties in Illinois.

unusual, although this is a typical habitat for this fern in northern Illinois. *Rhynchospora corniculata* occurs along the lake's edge in several places; handsome specimens of willow oak (*Quercus phellos*) and swamp cottonwood (*Populus heterophylla*) may be found. Records of more unusual species are enumerated below.

Old Baldy is a xeric hilltop which lies about four miles southwest of Bay City in Pope County. It is underlain by permeable gravel of Pliocene age, which together with the steepness of slope produces an interesting dry habitat. The southwest slope supports a few stunted xeric oaks, but most of the area is unshaded. Topsoil is thin at best, with patches of barren gravel exposed. Several records of interest are reported below.

A magnificent marshy woods at Massac Tower, near the Pope-Massac county line in Pope County, has provided several new records of Illinois flowering plants. The woods is extremely spongy underfoot and supports a vegetation community unlike any seen elsewhere in southern Illinois. Huge stands of royal fern, cinnamon fern (*Osmunda cinnamomea*), and sensitive fern (*Onoclea sensibilis*) intermingle with marsh fern (*Thelypteris palustris*) and purple fringed orchid (*Habenaria peramoena*). Rare species are listed below.

SPECIES NEW TO ILLINOIS

Cornus amomum Mill. Massac: Mill Spring, 3½ miles southwest of Bay City, June 6, 1965, *John Schwegman s.n.* Flowering specimen, occurring in low woods.

Panicum condensum Nash. Massac: Mermet Wildlife Refuge, low swampy woods, June 27, 1965, *R. H. Mohlenbrock*

12626. Growing with *Carex louisianica*, *C. grayi*, and *C. muskingumensis*. Although Fernald (1950) records this from southern Illinois as *P. agrostoides* var. *condensum*, we have seen no Illinois collection other than the one reported here.

Panicum hians Ell. Alexander: low, swampy roadside ditch, along Illinois Route 3, vicinity of Gale, June 30, 1965, *R. H. Mohlenbrock 13004*.

Panicum stipitatum Nash. Johnson: one mile west of West Vienna, June 27, 1965, *R. H. Mohlenbrock 12634*. In swampy woods beneath *Planera aquatica* and *Itea virginica*.

SPECIES NEW TO SOUTHERN ILLINOIS

Panicum wilcoianum Vasey. This grass was found on dry gravel hilltops associated with *Polygala incarnata* and *Lechea villosa*. This station is over 300 miles south of the nearest previous Illinois record (Winterringer and Evers, 1960). COLLECTION DATA: Old Baldy, four miles southwest of Bay City, Pope County, August 3, 1965, *Schwegman 76*.

Habenaria clavellata (Michx.) Spreng. Nine plants of this rare orchid were found growing in damp soil in woods. *Osmunda regalis* and *O. cinnamomea* are associates at this station. This is the fourth record from Illinois and the first this century. COLLECTION DATA: Massac Tower, Pope County, July 18, 1965, *Schwegman 36*.

Spiranthes vernalis Engelm. and Gray. This ladies'-tresses is one of the rarer orchids in Illinois. A collection from Effingham County is the only previous Illinois record for it since the turn of the century. At both southern Illinois stations it is associated with *Andropogon scoparius* in abandoned fields. COLLECTION DATA: Rock, Pope County, August 7, 1964, *Schwegman s.n.*; Mermet Refuge, Massac County, June 22, 1965, *Schwegman & Montgomery 48*.

Polygala incarnata L. This species is known from several central and northern Illinois counties, but had never been found south of Morgan County, some 200 miles to the north. In southern Illinois it grows on hilltops in gravelly soil. COLLECTION DATA: Old Baldy, four miles southwest of Bay City, Pope County, August 3, 1965, *Schwegman 75*.

Lechea villosa Ell. This species was found on dry hilltops in woods. It is

basically a northern species, with a record from St. Clair County being the southernmost previously. COLLECTION DATA: Old Baldy, four miles southwest of Bay City, Pope County, August 3, 1965, *Schwegman 74*; one-half mile south of Old Baldy, Massac County, August 3, 1965, *Schwegman s.n.*

ADDITIONAL LOCALITIES FOR RARE SOUTHERN ILLINOIS SPECIES

Isoetes melanopoda Gay and Dur. Dwarf specimens (4-8 cm tall) of this quillwort were growing with *Eleocharis acicularis* in marshy clay in a low woods on the Mermet Wildlife Refuge. COLLECTION DATA: low woods, Mermet Wildlife Refuge, Massac County, May 28, 1965, *R. H. Mohlenbrock 16011*.

Asplenium X ebenoides Scott. This hybrid between *A. platyneuron* and *A. rhizophyllum* was known previously in Illinois from Jackson and Pulaski counties. It has now been found in a woods in Pope County. COLLECTION DATA: woods, near Rock, Pope County, June 6, 1965, *John Schwegman s.n.*

Chamaelirium luteum (L.) Gray was found growing with mosses on sandy banks of a dry stream bed. The station is in dry oak-hickory woods. Dozens of plants occur at this station. The species was previously known in Illinois only from Massac and Hardin counties (Mohlenbrock and Voigt, 1959). COLLECTION DATA: Massac Tower, Pope County, July 25, 1965, *Schwegman 55*.

Iris cristata Ait. Dwarf crested iris has been known in Illinois only from Hardin and Union counties (Mohlenbrock and Voigt, 1959) where it grows on stream banks. At both stations cited here, it grows in woods on slopes of north-facing hills as well as stream banks. COLLECTION DATA: Massac Tower, Pope County, July 25, 1965, *Schwegman 54*; Mermet Refuge, Massac County, August 3, 1965, *Schwegman 78*.

Tipularia discolor (Pursh) Nutt. Crane-fly orchid was first collected in Illinois in 1959 (Mohlenbrock and Voigt, 1959a) at Jackson Hollow in Pope County. Since then, it has been collected at several other stations in that county. This report is the first for it outside of Pope County. COLLECTION DATA: Split Rock Hollow, two miles south of Ozark, Johnson County, May 1, 1965, *Schwegman s.n.*

Hypericum denticulatum Walt. This species has been found previously in

Illinois only from two stations in Pope County. Now a third station in Pope County may be recorded. COLLECTION DATA: dry hilltop, Old Baldy, four miles southwest of Bay City, Pope County, August 3, 1965, *John Schwegman 77*.

Monotropa lanuginosa Michx. Pine-sap was found growing on a dry oak-hickory hillside in a colony of more than 70 plants. It was previously known in southern Illinois only from Jackson County (Mohlenbrock and Voigt, 1959). COLLECTION DATA: Massac Tower, Pope County, September 25, 1965, *Marta Schwegman (John Schwegman 126)*.

Gerardia fasciculata Ell. This southeastern species was first collected in Illinois in 1958 by Mohlenbrock (Winteringer and Evers, 1960) in Jackson County. In Massac County it grows on a roadside in the Mermet Wildlife Refuge. COLLECTION DATA: Mermet Refuge, Massac County, August 28, 1965, *Schwegman 113*.

Scutellaria nervosa Pursh, f. *alba* Palmer & Steyererm. This white-flowering color form has been known previously from one station in Missouri and one in a low woods at Lake Murphyshoro State Park, Jackson County, Illinois. This taxon has now been discovered in a swampy woods in Massac County. COLLECTION DATA: Mermet Wildlife Refuge, Massac County, May 28, 1965, *R. H. Mohlenbrock 16002*.

Helianthus angustifolius L. This narrow-leaved sunflower was first found in Illinois in Massac County by R. A. Evers in 1957. Now another collection from Massac County has been made. COLLECTION DATA: Mermet Wildlife Refuge, Massac County, August 28, 1965, *John Schwegman s.n.*

Rudbeckia missouriensis Engelm. Evers had previously found this species on the limestone hill prairies of Monroe and Randolph counties. Now Pope County may be added. COLLECTION DATA: Millstone Knob, Pope County, July 17, 1965, *John Schwegman 41*.

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