ADDITIONAL RECORDS OF THE FERNS OF CUMBERLAND COUNTY

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ABSTRACT. — Field work in the Embarras River Valley in Cumberland County, Illinois has revealed five ferns and seven forms of ferns which have not been previously reported for the county. A form of the silvery spleenwort showing a forked pinna has not been previously reported.

Mohlenbrock (1967) lists only seven ferns as occurring in Cumberland County. Wunderle (1967) reported an additional six ferns as occurring in the county. The purpose of the paper is to present information on new ferns found during 1967, their forms, and the abundance of the ferns found in the Embarras River Valley. The fern habitats of all species that have not been previously reported are included because of the rapid depletion of bottomland timbers to make way for the new Lincoln Reservoir which will flood the area. The species preceded by an asterisk (*) are those which have not been previously reported as occurring in Cumberland County. The specimens are in the herbarium of the author. The order of the fern families and nomenclature are based largely on that of Mohlenbrock (1967) and Wherry (1961).

OPHIOGLOSSACEAE

Botrychium dissectum Spreng. var. *obliquum* (Muhl.) Clute. The grape fern is rather rare in occurrence in the Embarras River Valley, but when it is found it occurs with *Botrychium virginianum* in moist bottomland. Wunderle 67-11.

Botrychium virginianum (L.) SW. The rattlesnake fern is one of the most common ferns growing in the valley. It can be found growing in moist bottomland and north-facing upland slopes. Wunderle 67-3.

OSMUNDACEAE

**Osmunda claytoniana* L. The interrupted fern is occasionally found in moist, north-facing low woodlands at Gold Hollow and on a moist, west-facing slope at Copper Cave. This fern totals only ten plants in the two areas. Wunderle 67-4.

POLYPODIACEAE

Adiantum pedatum (Tourn.) L. The maidenhair fern is a very common fern of moist lowlands and ravines. This fern in Cumberland County is generally an indicator of other moisture loving ferns. Wunderle 67-5.

Polystichum acrostichoides (Michx.) Schott. The Christmas fern is the second most abundant fern in the county. The fern grows on northern slopes and on south facing slopes if the ravine is deep enough to produce enough shade and moisture. Wunderle 67-6. Besides the common form, there are four variants that have been found and are thought to be caused by the environment.

*forma *crispum* Clute. A frond of this form which has the pinnae wavy was found at Gold Hollow growing from a typically normal plant. Wunderle 67-7.

*forma *incisum* (Gray) Gilbert. The frond of this form are more coriaceous and have coarsely serrate pinnae. A frond of this variant was found growing from a typical plant at Gold Hollow. Wunderle 67-8.

*forma *multifidum* Clute. The pinnae of this form are deeply pinnatifid. Three fronds of this variant were growing from a plant with two typical fronds in a moist ravine in the SW, SE, NW, 27, Pleasant Grove Township. Wunderle 67-9.

*forma *cristatum* Clute. This variant has the pinnae forked and the tip of the frond more or less forking. It appears that the forking of the frond may have resulted from injury. This form was growing in a moist ravine in the SW, SE, NW, 27, Pleasant Grove Township. This form has also

been reported from southern Illinois by Mohlenbrock and Wunderle (1967) Wunderle 67-10.

Onoclea sensibilis L. The sensitive fern has been found growing in only one area of Gold Hollow and that represented by an extensive colony in a north-facing bottomland timber. Wunderle 67-20.

**Thelypteris hexagonoptera* (Michx.) Weath. The broad beech fern is rarely found but when located it is usually located in a moist ravine with heavy shade. There are three colonies of this fern in Gold Hollow. Wunderle 67-12.

*forma *Simonii* Reed. This form has the pinnatifid pinna forking. This variant was growing with typical specimens. This form has not been previously reported in Illinois. Wunderle 67-13.

**Athyrium pycnocarpon* (Spreng.) Tidestr. The narrow-leaved spleenwort is extremely rare in the county and has been found in moist, north-facing bottomland. There are only eight plants of this fern found at Gold Hollow. It can be found growing with the silvery spleenwort which is abundant at this site. Wunderle 67-14.

Athyrium thelpteriodes (Michx.) Desv. The silvery spleenwort is a frequently found fern in moist, wooded ravines. One ravine in the SW, SE, NW, 27, Pleasant Grove Township has specimens which have fronds in excess of 40 inches. Wunderle 67-15.

*A rare variant has a forked pinna midway on the rachis. The forked pinna has one shank parallel to the main axis and the other shank forming a 45 degree angle with the main axis. This variant has not been previously described and therefore is new for Illinois. Wunderle 67-17.

**Athyrium filix-femina* (L.) Roth. var. *rubellum* Gilb. The lady fern is rather rare in the county and has been growing in a west-facing, moist, bottomland of Copper Cave. Wunderle 67-16.

Asplenium platyneuron (L.) Oakes. The ebony spleenwort is not common but can be found in dry woodlands or shaded, exposed sandstone crevices. Wunderle 67-18.

**Woodsia obtusa* (Spreng.) Torr. The common woodsia is occasionally found on shaded, exposed sandstone and dry woods. Wunderle 67-19.

Cystopteris fragilis (L.) Bernh. var. *protrusa* Weath. The fragile fern is the most common fern in Cumberland County. It grows in moist woodlands and dry, shaded slopes. Wunderle 67-1.

*forma *cristata* (Lowe) Weath. This form shows the frond forked at the tip and is new for Illinois. Wunderle 67-2.

Literature Cited

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