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Vascular Vegetation of Moultrie County, Illinois

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VASCULAR VEGETATION OF MOULTRIE COUNTY, ILLINOIS

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VASCULAR VEGETATION OF MOULTRIE COUNTY, ILLINOIS

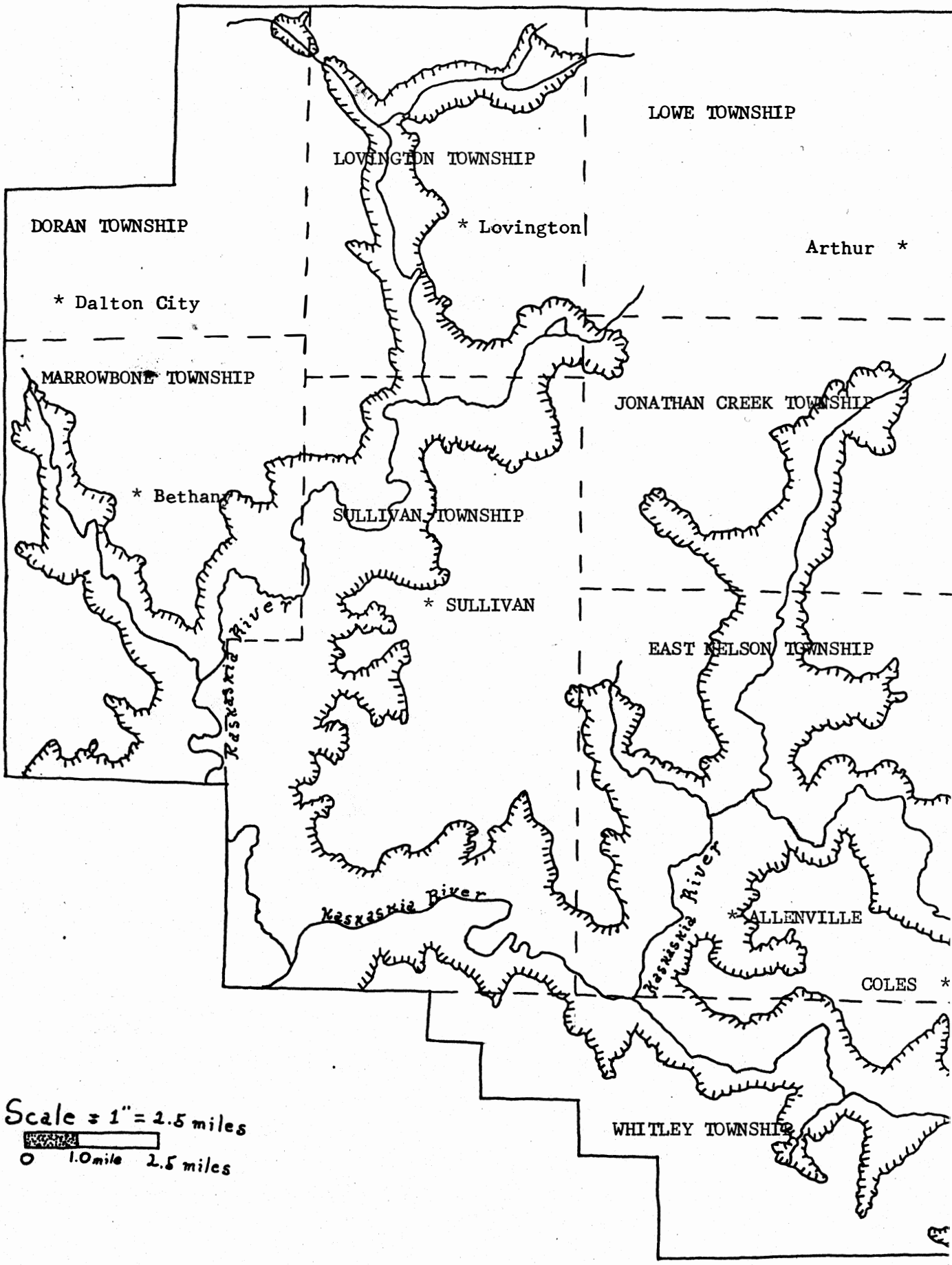
Introduction

During this study an attempt was made to determine the present composition of Moultrie County, for vascular vegetation, and to find and describe any natural areas that may still exist.

Moultrie County, located in east-central Illinois, is in the southern part of the Illinois Corn Belt. The county is bounded on the north by Macon and Piatt Counties, on the east by Douglas and Coles Counties, on the south by Shelby County, and on the west by both Shelby and Macon Counties. These latter two counties were the main donors of land when Moultrie County was created in 1842, (County Archives, 1941). At its longest point the county is 23.5 miles north to south, 18 miles east to west, and has 218,500 acres of land (Fig. 1).

The county is drained by a number of streams and rivers with the Kaskaskia River, formerly called the Okaw River, the most important. This river drains the eastern part of the county and is fed by Jonathan Creek from the north and east and Whitley Creek from the south and east. The West Okaw River, the western branch of the Kaskaskia River, is supplied by Marrow Bone Creek and Wilbourn Creek from the west. Both of these rivers flow into the Shelbyville Reservoir which now covers approximately 4% of the southwest edge of the county. Along both the Kaskaskia and West Okaw Rivers fish and wildlife management areas have been established to help control

FLOODPLAIN FOREST OF MOULTRIE COUNTY Fig. 1



runoff from the surrounding area as well as to provide refuge for wildlife.

Moultrie County had its first railroads constructed in the decade of the 1850's. The Illinois and St. Louis Railroads served the southern portion of the county while the Wabash, Pacific, and St. Louis served the western and northern edges. Presently there are approximately 70-75 miles of modern track traversing the county. This mileage is divided among four railroads: the Illinois Central, the Chicago and Eastern, the Penn Central, and the Norfolk and Western Railroads. The latter at one time extended from Sullivan directly south and provided a prairie ecotone along the right of way which succumbed to cultivation when the railroad ceased to function. Along the right of way of four railroads are extensive prairie areas, some stretching for 2-3 miles while others are only a few hundred feet in length. Perhaps the best prairie areas are found near Gays along the Penn Central, northwest of Sullivan along the Illinois Central, and northeast of Sullivan along the Chicago and Eastern Illinois.

Geology and Topography

Except for the extreme southern border, Moultrie County was totally covered by the Wisconsin Glaciation which extended over central Illinois some 20,000 years ago, (Hopkins, 1911). Due to the glacial drift, the land appears as a flowing, somewhat undulating prairie. As a result, Schwegman (1973) considers the county as part of the Grand Prairie Section of the Grand Prairie Division of the state. The major signs of glaciation in the county are boulder

"drifts" present in the northern part of the county, and the Cerro Gordo Moraine, formed by the Woodfordian branch of the glacier. This moraine extends from the northwest corner of the county south to and across the central portion along the Kaskaskia River.

From the time of the glacial retreat there has been little change in the topography of the land. Any change which has occurred is due to the constant erosion of the land from wind and rain. Over 80% of the county is still nearly level prairie, circumvented by rolling uplands, low floodplains, and small ravines. Only a few small bluffs occur in the county and these are located on the south fork of the Kaskaskia River southwest of Sullivan. These bluffs range from 40 feet to 80 feet in height and are divided by narrow, shallow ravines, (County Archives, 1941).

Soils

After the glacier had retreated there was left behind a large deposition of glacial drift that covered the county to an average depth of 200 feet. This glacial drift soil is made up of remnant of the Illinois Glacier, the Upper Wisconsin Glacier, and the Iowan loess that divided the two glacial moraines, (Hopkins, 1911). The upper level of this 200 feet is covered by 3-6 feet of fine-grained loess from which today's top soil is produced. As a result of soil development since the Wisconsin glaciation, seven soil types are found in the county.

A. Upland Prairie Soils

1. Brown silt loam soil accounts for 77.5% of all soil in Moultrie County and varies from the brown at timber lines to a black

in the prairie areas. The formation of this soil was due to loess drift and deposition of organic matter from the native prairie plants, particularly the grasses.

2. Black clay loam, commonly called "gumbo", constitutes 4.5% of the county soil. It is found in very low, moist areas of the prairie. The constituents tend to be clay with large quantities of humus. Quite often the black clay loam soil will blend with the brown silt loam to produce a finer cultivating soil with less cracking.

B. Upland Timber Soils

1. Light gray silt loam on tight clay is located almost entirely in the south sections of the county. It makes up 1.4% of the county soil. Even with the present cultivation, trees such as the white oak, shellbark hickory, blackjack oak, and post oak thrive, indicating the presence of this dry, hard soil.

2. Yellow-gray silt loam makes up 10.3% of the county and is found in narrow belts along the Kaskaskia River. Variability is indicated in this soil because it supports many types of vegetation. It originally supported a prairie vegetation but now is covered with timber such as elm, sugar maple, wild cherry, hackberry, and black walnut. Since little understory grows in these timber regions the soil is lacking in organic matter.

3. Yellow silt loam is found to be the chief constituent of the hillsides and ravines which are located south of Sullivan in the Kirksville area. Making up less than 1% of the county's soil, this type is not easily cultivated because of its poor composition which allows extreme erosion to occur.

C. Swamp and Bottom Land Soils

1. Mixed laom is found in flat areas along streams. The soil varies from a dark brown silt loam or clay loam to a brown loam and light brown sandy loam.

D. Terrace Soils

1. Mixed loam over sand and gravel serves as a fill-in soil in areas formed by the melting action of the Wisconsin glacier and the pileup of silt in the rivers. Found in level to sloping condition, this soil makes up 1.6% of the county area and proves to be some of the easiest soil to cultivate due to drainage at the surface and the holding power of the substrate levels, (Hopkins, 1911).

Although all of the mentioned soils exist, the major portion of this undulating prairie land of the corn belt has a black pastry loam called "vegetable mould" which reaches to depths from 3-10 feet. Only the yellow silt loam is untillable, but it does produce timber lands and areas for pasturing when planted with leguminous plants or bunch grasses such as the ryes, fescues, and the trailing lespedezas (County Archives, 1941).

Climate

Because Moultrie County lies between 39 and 40 degrees north latitude, its climate provides an ideal environment for abundant agriculture. The county has a mean annual temperature of 52-54° F in the north and northeastern sections to a mean of 54-56° F in the south and southwestern sections. Because of these temperatures the

county has 170-180 frost free days, which provides all vegetation with approximately a six month growing season. During the growing season, April thru October, vegetation is exposed to the hot and humid conditions of June thru August, but at the same time receives approximately 40-50% of the mean annual precipitation of 36-38 inches in the northern two-thirds and 38-40 inches in the southern one-third. Generally, during early spring, 10-12 inches provide early soil moisture and another 8-10 inches fall in early autumn. The hot, humid summer months have typically equal moisture with an average of 3 inches per month. The winter months amass the remaining precipitation from snow and occasional light rains, (Schwegman, 1973).

History

Moultrie County has not always been an individual county. Before 1843 Moultrie County was a part of what is now Macon and Shelby Counties with the majority belonging to Shelby County (Combined History of County, 1881). In 1841 a petition was formed in an effort to establish a county separate from Macon and Shelby Counties. The petition asked that the southeast part of Macon County and the northern part of Shelby County be united to form Okaw County. The petition was vetoed by Shelby County residents after it passed both houses and Okaw County was never formed.

In 1842 another petition was circulated which attempted to embrace all of the present day Moultrie County. This petition asked for one entire tier of townships of western Coles County, and with the southern boundary a straight line rather than the irregular southern

border the county has today. Opposition from the residents of Coles and Shelby Counties resulted in some townships being deleted from the petition, thus resulting in the eventual boundaries.

The county name and county seat were both contested issues. Many residents felt the county should be called Fleming in honor of one instigator who helped draw up the petitions. Many others felt the county should be called Moultrie in honor of Colonel William Moultrie's military fame. The latter name was chosen and has been retained ever since. The county seat was decided from a choice of 3 sites: East Nelson, Patterson Point, and Asa's Point, now known as Sullivan. The seat would include 40 acres of tract purchased for $100. Asa's Point received the vote and the name originated from Sullivan's Island off the Charleston Harbor, where Fort Moultrie was located. Consequently, in 1843, Moultrie County was officially formed with Sullivan as its county seat.

Whitley Township was established in 1826 before the area was recognized as an individual county. The township was located in the southeastern part of the area in T12N R5E and R6E. The soil of the area was ideal for agriculture and the prairie was unmatched with its supply of timber and water as well as the large growth of the blue stem grasses for grazing. The township was on high, rolling land and was divided by 2 railroads in the 1850's: the Illinois and St. Louis on the south and the Wabash, St. Louis, and Pacific on the west. Two towns made the township: (1) Summit, now known as Gays, is the highest point between St. Louis and Terre Haute, and (2) Bruce,

located on the northern boundary of the township.

Lovington Township, founded in 1821-1830, was located in the northeastern corner of the county. Lovington is its main town and was established in 1830. This township occupied the territory along a small tributary of the Kaskaskia River in T14 and T15N and R5E. This land was said to be the richest in the county and still is with its deposits of the glacial loess left by the Wisconsin Glacier and the humus-producing prairie vegetation.

Dora Township became established in the northwest corner of the county in the early 1830's but was without a town until Dalton City was founded in 1871. This area was mostly prairie area with only traces of timber along the streams.

Marrowbone Township, 1830, was immediately west of Dora Township and totally timber and supplied by water from Marrowbone Creek. Bethany was and is the central town of this area and was an important cog in the agriculture of the area due to being split by the Illinois Central Railroad.

East Nelson Township was a narrow strip of land extending from the western boundary along the Okaw River to the eastern line. Located in T13N R6E this township was ½ timber and ½ undulating prairie. At the river above Kirksville the only bluffs of the county were formed due to both the glacier and to the ever constant eroding of the land. This township is still rich in waterways, having Johnathon's Creek and Coon Creek as well as many tributaries of the Kaskaskia River. Three towns comprised the township: East Nelson, Julion, and Coles Station. At present the only remaining town or station is Allenville

and Coles Station, both along the Illinois Central Railroad.

Jonathan's Creek Township is to the immediate north of East Nelson and lies in the central-east part of the county. When established it supported large growths of timber but today has given way to agriculture.

Lowe Township was formed in 1872 with the settlement of Arthur. Lowe is located in the northeast section of the county and, as in the beginning, is undulating prairie with basically no streams or timber. Located in T15N R6E, Lowe is still rich with agricultural soil for farming and grazing. This township is divided by the Penn Central Railroad.

Sullivan Township was established in 1845 with the settlement of Sullivan in T13N R4E and R5E. Centrally located, it is supported by rich prairie soil and several small streams. It also was the crossroads for 3 railroads which still function: the Chicago-Eastern, the Illinois-Central, and the Wabash Railroads.

Although the county at present is strictly agricultural, some 90% being farmed, before becoming a county it supported hunting and trapping as recorded by the early settlers. Indians of four tribes hunted, fished, and trapped this land for many years before moving to other territories to the north. The Illinois Indians, a branch of the Algonquin family, the Iroquois, the Kickapoos, and the Pottawatomies all thrived on the land and fought for it, as it represented a survival habitat. Today they, along with their timbers, animals, and perhaps waters are gone, leaving behind a land now developed into Moultrie

County, (History of Shelby and Moultrie County, 1881).

Vegetation

The undulating prairie must have appeared as an awesome foe to the first pioneer settlers. Coming from the New England states, they were accustomed to the hills and forests and what they possessed; but the prairie, with its hard clay and deep rooted grasses, was entirely different. These pioneers quickly settled the southern parts of the county containing the prairie groves of burr oak and then moved into wooded strips along the Kaskaskia and Okaw Rivers. From here, the prairie to the north of the county was an overpowering foe, one the pioneers had never met nor would meet again.

Disregarding the vegetation for an instant, other prairie features presented many problems. The question of how the plows would furrough the hard-packed clay needed to be considered. Drainage was less than adequate with the high water table and clay soil. Therefore, the sod was usually wet and provided many shallow ponds, lakes, and marshes in low areas. However, the pioneers conquered these obstacles. Today only remnants of early prairies give hints as to the pioneer vegetation and its locations.

Most of the open prairie vegetation can be found in isolated sections along railroad right-of-ways, fence rows, and in open stretches of land. These stretches range from a few feet wide and long to 30 or 40 yards in width and a mile in length along the railroads of Moultrie County. These areas still support the colonies of big blue stem (Andropogon frucatus), little bluestem (Andropogon

scoparius), switch grass (Panicum virgatum), cord grass (Spartina pectinata), and Indian grass (Sorghastrum nutans). However, due to the persistent farming in the areas other non-native grasses now thrive along with or beside prairie grasses. Witch grass (Panicum capillare), knotgrass (Paspalum distichum), nodding foxtail (Sertaria faberii), yellow foxtail (Sertaria lutescens), and red top (Agrostis alba) are just a few of these non-native grasses.

Slough areas produced not only cord grass, but also barnyard grass (Echinochloa crusgalli) and canary grass (Phalaris arundinacea). These marshy areas also support many species of sedges (Carex), and (Cyperus), bulrushes (Scripus), and rushes (Juncus). Accompanying the tall grass prairie were the blazing colors of the prairie flowers. These flowers were the only beauty the pioneers could see in the prairie. Among the most abundant were the yellow prairie sunflowers (Helianthus), the compass plant (Silphium lacinatum), cup plant (Silphium perfoliatum), rosin weed (Silphium integrifolium), prairie-dock (Silphium terebinthinaceum), and black-eyed susan (Rudbekia hirta). Combined with these species of prairie flowers were species of Aster, the lead plant (Amorpha canescens), rattlesnake master (Eryngium yuccifolium), and milkweed (Asclepias). The marshes even now support iron weed (Vernonia altissima), boneset (Eupatorium perfoliatum), swamp milkweed (Asclepias incarnata), and water hemlock (Cicuta maculata). (Schwegman, 1973)

A minor portion of Moultrie County still possesses forest regions, the largest percentage being along the Kaskaskia and Okaw River. (Fig 1) The forests along these two rivers and their streams were narrow bands

only 2-5 miles wide which were further divided into an upland prairie forest and a floodplain forest. The upland forests, between the prairie and the rivers was predominately burr oak (Quercus macrocarpa), white oak (Quercus alba), pin oak (Quercus palustris), shagbark hickory (Carya ovata), bitternut hickory (Carya cordiformis), mockernut hickory (Carya tomentosa), and some ashes (Fraxinus). The slope areas supported a growth of white oak (Quercus alba), black oak (Quercus velutina), red oak (Quercus rubra), chestnut oak (Quercus prinus), bitternut hickory (Carya cordiformis), white ash (Fraxinus americana), basswood (Tilia americana), and sugar maple (Acer saccharum). The flood-plain forests had and still have a number of constituents beginning with black walnut (Juglans nigra), slippery elm (Ulmus rubra), white ash (Fraxinus americana), and sycamore (Platanus occidentalis). As the forest line neared the flooding areas of the rivers, these species were replaced by box elder (Acer negundo), cottonwood (Populus deltoides), silver maple (Acer saccharinum), and willow (Salix nigra). (Ebinger and Blackmore, 1967 and Ebinger and Crites, 1969).

The only other wooded areas are isolated groves scattered throughout the county, with most located from the Kirksville region south around Shelbyville Reservoir. These prairie groves, influenced by recurrent fires throughout the county's history, are of two basic types. One grove is dominated by burr oak (Quercus macrocarpa), with some red oak (Quercus rubra), black oak (Quercus velutina), shagbark hickory (Carya ovata), and mockernut hickory (Carya tomentosa). The other grove is of american elm (Ulmus americana), hackberry (Celtis occidentalis), red hawthorn (Crataegus mollis), sugar maple (Acer saccharum), shingle

oak (Quercus imbricaria), and sassafrass (Sassafrass albidum) as understory or fringe trees. Many other trees found in the county are not native to the county or simply did not reach a dominating proportion, (McClain and Ebinger, 1968).

Method of Study

A random method of study was performed in an attempt to collect specimens from all areas of the county. Because of the county being mostly prairie much attention was given to railroads' edges, upland prairies, and isolated prairie remnants. However, collecting was also done in floodplains, different forest habitats, bluffs, prairie potholes, and cultivated regions of various stages of succession. Special attention was given to collecting specimens from the lowland areas of what is now Shelbyville Reservoir and therefore flooded by the lake's waters. The final area to be collected from was the various ponds and streams of the county to assure some diversity among the aquatics. All specimens collected were pressed and dried using standard herbarium techniques. Extensive information was kept concerning habitat location and description of the specimens. The specimens collected were identified using Jones (1963) and by checking the specimens against herbarium specimens at the Stover Herbarium of Eastern Illinois University. Final determination was made by Dr. John E. Ebinger, taxonimist at Eastern Illinois University.

Natural Areas

Moultrie County possesses no state parks or nature preserves

except for wildlife management areas found in the central and northwest parts of the county. However, several interesting natural areas do exist. Those areas least disturbed and of greatest botanical interest are listed and described below. Included in each description is the location, general habitat, dominant vegetation, and unusual species of the area.

1. Silver Maple Forest---located 5.5 miles east and south of Sullivan, (NW¼, Section 15, R6E, T13N). The forest lies along both sides of the Kaskaskia River and is approximately one-eighth mile wide and one mile long. The entire area represents the floodplain for the river and is therefore exposed to large amounts of water in the early spring and late fall. However during the summer months vegetation flourishes. Although Acer saccharinum dominates the area, several other woody specimens are plentiful. Along the edge of the river are found Populus deltoides, Salix nigra, Acer negundo, and Platanus occidentalis. Away from the river, the forest understory consists of Ulmus rubra, Fraxinus lanceolata, and some Acer saccharum along the outer edge. Lonicera japonica is quite predominant along the upper crest of the south slopes. The herbaceous vegetation is almost all Laportea canadensis with a scattered assortment of other species capable of tolerating large amounts of moisture and shade.

2. Open floodplain of Kaskaskia River---located 6.5 miles southeast of Sullivan, (NE¼, Section 15, R6E T12N). This sandy area is of scattered tree lines composed of species of Fraxinus, Acer, and some Quercus. Three unusual species are found in the tree lines, these being

Ptelea trifoliata, Zanthoxylum americanum, and Staphylea trifoliata. Woody vines of Humulus americana, Lonicera japonica, and Parthenocissus quinquefolia are also found growing in among the trees. Among the more unusual herbaceous species are Portulaca oleracea, Hibiscus militaris, and Lobelia cardinalis. As always the shady areas are dominated by Laportea canadensis.

3. Lowland Forest---located 5 miles west of Coles Station on the Bruce-Findlay road, (SE¼, Section 5, R5E T12N). The forest is divided by a shallow flowing stream with small hills on the east and west sides of the stream. Common woody species include Humulus americana, Lonicera japonica, Lonicera prolifera, Staphylea trifoliata, Ptelea trifoliata, and Asimina triloba. One rare tree was found in this forest, Crataegus virdis, growing along the roadside bank of a ditch. Herbaceous plants included Danthonia spicata, Carex blanda, Carex grayii, Brachyelytrum erectum, Trillum recurvatum, and Ampelamus albidus. One rare plant, Aristolochia serpentaria was observed in this habitat but not collected because only one specimen was found.

4. Upland Oak-Hickory Forest---located 5 miles southwest of Sullivan, (NW¼, Section 29, R4E T12N). The area is part of the rolling hills surrounding the Kirksville area and covers 1½-2 acres of land. The forest is a combination of a dry upland forest with a lowland forest condition existing along a stream that divides the woods. Dominant species include Quercus rubra, Quercus velutina, Quercus macrocarpa, Carya ovata, and Carya tomentosa. Other species of Quercus and Carya persist but not on a dominant level. Some unusual species occur in the upland part of the forest, these being Aureolaria flava

and Monotropa lanuginosa, the latter in abundance. Along the lowland and hillside of the woods was found Botrychium virginum, Adiatum pedatum, Asplenium platyneuron, and Cystopteris fragilis.

5. Oak-Maple Forest---located 3 miles northwest of Sullivan on route 121, (NE¼, Section 31, R4E, T13N). The area is an unique area in that it consists of an oak-hickory forest and an oak-maple forest divided by lowland woods. The upland oak-hickory forest is dominated by Quercus rubra, Quercus velutina, and Carya tomentosa. The oak-maple forest consists of almost all Acer saccharum. Along the stream is found an abundant supply of Staphylea trifoliata and Fraxinus lanceolata. The entire lowland area is a blanket of Laportea canadensis with a scattering of Solidago gigantea, Solidago altissima, and Solidago ulmifolia.

6. Tall-Grass-Prairie---located 2 miles west of Gays, (SW¼, Section 27, R6E, T11N). Although many prairie areas exist throughout the county, this area, some 2 miles long and 40 yards wide, best exemplifies native conditions. Although the railroad company does cut and burn the area periodically the common grasses and flowers continue to thrive. The grasses include Andropogon frucatus, Andropogon scoparius, Sorghastrum nutans, and species of Panicum, Festuca, and Elymus. Among the flowering species were Silphium lacinatum, Silphium terebinthinaceum, Rudbekia hirta, and species of Asclepias. Many unusual and less abundant species are also collected from the area. Among these were Aegilops cylindrica, Leptochloa fasicularis, Aristida oligantha, Eryngium yuccifolium, Petalosteum purpureum, and Oenothera speciosa, a species usually found further

south of Moultrie County.

7. Aquatic Habitat---one habitat is a series of 3 ponds found in an open field 3½ miles southwest of Lovington, (SE¼, Section 5, R4E, T14N). These are typical farm ponds of the county, covering perhaps one-eighth acre each. The surrounding area is composed of many stages of succession ranging from 2 and 3 year old fields to intermediate forests. The ponds themselves are ringed by species of Juncus, Carex, Cyperus, and some Salix. Most interesting is the growth of the cattail population. Observations indicate that Typha latifolia and Typha angustifolia have been successful in hybridizing to produce a species Typha latifolia x angustifolia. Also present is Potamegeton americanus, Potamegeton foliosus, and Potamegeton pectinatus. One somewhat rare species, Ranunculus longirostris, was found blooming profusely in one of the ponds and also Ceratophyllum demersum.

The second aquatic area is a railroad slough 1.5 miles northwest of Allenville, (SW¼, Section 17, R5E, T13N). The slough is encompassed by an upland oak forest. Three unusual species of water plants were found in this habitat, these being Lemna minor, Spirodela polyrhiza, and Wolffia columbiana.

ANNOTATED CHECKLIST

Prior to this study a total of 371 species of plants had been recorded for Moultrie County, Illinois. This number is based upon information obtained from Jones and Fuller (1955) and Winterringer and Evers (1960). Of the 371 species reported a total of 2 were fern and fern-allies, 79 were monocots, and 290 were dicots. As a result of the present study a total of 211 new plant records have been found in Moultrie County bringing the total to 582: 5 fern and fern-allies, 138 monocots, and 439 dicots. Following is a checklist of those plant species found in the county upon completion of this study. In this checklist all species that have been recorded for Moultrie County are listed. The species collected by the author have the habitat listed as well as the author's field number. An astrik before the species indicates that this report is a new county record. Species listed without collecting data were not found during this study, but have been previously reported for the county. All specimens collected are deposited in the Stover Herbarium of Eastern Illinois University. The nomenclature follows that of Jones (1963).

FERN AND FERN-ALLIES

EQUISETACEAE

Equisetum arvense L.

OPHIOGLOSSACEAE

Botrychium virginianum (L.) Sw. Low, moist woody area. D837

POLYPODIACEAE

Adiantum pedatum L. Wet hillside in Black Oak Woods. D1576

*Asplenium platyneuron (L.) Oakes. Wet hillside by stream in woods. D884

Cystopteris fragilis (L.) Bernh. Moist, lowland woods. D1598a

MONOCOTS

ALISMACEAE

*Alisma subcordatum Raf. Very wet, open area. D755
*Sagittaria brevirostia Mach and Bush. Edge of flowing stream. D1246
*Sagittaria latifolia Willd. Flowing stream below railroad bank. D1275

ARACEAE

*Acorus calamus L. In ditch of standing water. D1571
Arisaema dracontinum (L.) Schott. Moist, lowland woods. D1588
Arisaema triphyllum (L.) Schott, Moist, lowland woods. D1586

COMMELINACEAE

*Commelina communis L. Edge of woods area by reservoir. D868
*Tradescantia ohiensis Raf. Dry, open area along railroad. D948
*Tradescantia virginiana L. Edge of dry, upland woods. D1034

CYPERACEAE

*Carex artitecta Mack. Hillside of dry open field. D1477
Carex blanda Dewey. Low, moist woods margin. D1539
Carex brevior (Dewey) Mack. Along edge of prairie area. D595
*Carex cristatella Britt. Very wet marshy area by woods. D536
Carex davisii Schw. and Torr. Edge of dirt road by ditch. D605
*Carex frankii Kunth. Mud at the edge of farm pond. D968
Carex gravida Bailey. Moist ditch along edge of road. D614
Carex grayii Carey. Wet floodplain woods of Kaskaskia River. D1223
Carex hirsutella Mack. Very dry sandy soil of uncultivated field. D581
Carex jamesii Schw.
Carex lanuginosa Michx.
Carex leavenworthii Dewey.
*Carex lupulina Muhl. Very wet marsh area by woods. D527
Carex muhlenbergii Schk. Mud at edge of pond on golf course. D1500
*Carex normalis Mack. Dry, sandy soil along railroad. D598
Carex oligocarpa Schk.
Carex rosea Schk. Open, dry uncultivated field. D705
Carex shortiana Dewey. Very wet marsh with standing water. D533
Carex vulpinoidea Michx. Mud at edge of pond. D966
*Cyperus acuminatus Torr. and Hook. Sandy prairie soil by railroad. D806
*Cyperus aristatus Rottb. Mud at edge of field pond. D1414a
*Cyperus esculentus L. Sandy soil of Kaskaskia River bed. D1226
*Cyperus ferruginescens Boeck. Sandy soil of Kaskaskia River. D1021
Cyperus strigosus L. Mud at edge of open pond. D1290
*Eleocharis englemann Steud. Mud at edge of farm pond. D1416
*Eleocharis obtusa (Willd) Schutt. Mud at edge of field pond. D978
Eleocharis tenuis (Willd) Schultes.
Scripus atrovirens Willd. Water at edge of pond. D1074
*Scripus lineatus Michx. Very wet soil by road. D537
*Scripus validus Vahl. Edge of water in pond. D972

DIOSCOREACEAE

Dioscorea villosa L.

GRAMINEAE

*Ageilops cylindrica Host. Very dry soil along railroad. D1639
*Agropyron repens (L.) Beauv. Prairie soil along railroad. D600
Agrostis alba L. Fence row of open pasture. D621
Agrostis perennans (Walt) Tucker. Dry upland forest of Black Oak. D1759
Alopecurus carolinianus Walt.
Andropogon frucatus Muhl. Dry sandy soil of prairie. D1015
*Aristida oligantha Michx. Dry sandy soil by railroad. D1754
*Avena sativa L. Loose, dry soil by railroad. D661
Brachyelytrum erectum (Schreb.) Beauv. Very moist lowland forest. D1659
*Bromus commutatus Schrad. Very dry, open field. D505
Bromus inermis Leyss. Along edge of stream in open field. D639
Bromus purgans L. Margin of cutover woods. D573
Bromus tectorium L. Dry, sandy soil of prairie. D673
Cinna arundinaceae L. Moist area at margin of upland forest. D871
*Dactylis glomerata L. Open, uncultivated field; very dry soil. D506
*Danthonia spicata (L.) Beauv. Moist, lowland woods. D1613a
Digitaria sangunalis L. Moist area by reservoir. D762
Diarrhena americana Beauv. Dry upland Oak-Hickory forest. D1663
Echinochloa crusgalli (L.) Beauv. Very moist soil of low area. D766
Elusine indica (L.) Gaertn. Sandy soil at road edge. D1727
Elymus canadensis L. Sandy soil of prairie. D800
Elymus villosus Muhl. Dry, uncultivated open field. D507
Elymus virginicus L. Hillside of sandy soil by reservoir. D740
Eragrostis cilianensis (All.) Lut. Moist, low reservoir area. D758
*Eragrostis hypernoides (Lam.) BSP. Wet, sandy soil of river. D1016
*Eragrostis pectinacea (Michx.) Nees. Very dry upland prairie. D1768
Eragrostis spectablis (Prush) Steud. Very dry upland prairie. D1808
Festuca elatior L. Margin of woods by reservoir. D852
Festuca obtusa Bieler. Moist lowland woods. D1613
*Glyceria striata (Lam.) Hitch. Marsh by margin of woods. D529
Hordeum jubatum L. Stream in open dry field. D612
*Hordeum pusillum Nutt. Dry, uncultivated field. D606
Hystrix patula Moench. Margin of upland woods. D569
Leersia aryzoides (L.) Sw.
Leersia virginica Willd.
*Leptochloa fusicularis (Lam.) A. Gray. Sandy prairie soil by railroad. D1738
*Lolium perenne L. Forest soil at base of ravine. D1108
Muhlenbergii brachyphylla Bush.
Muhlenbergii frondosa (Poir.) Fern.
Muhlenbergii mexicana (L.) Trin.
*Muhlenbergii sobolifera (Muhl.) Trin. Open, dry uncultivated field. D714
*Panicum boscii Poir. Upland white oak forest. D1584
Panicum capillare L. Margin of woods by reservoir. D874

*Panicum huachuacae Ashe. Upland forest hillside. D696
Panicum scribnerianum Nash.
Panicum virgatum L. Open Prairie soil by railroad. D1625
*Papsalam ciliatifolium x pubescens Michx. Sandy soil of prairie. D1637
*Papsalam pubiflorum x glabrum Michx. Dry, upland woods margin. D1769
*Phalaris arundinacea Reed. Open, cleared reservoir area. D759
Phleum pratense L. Open, uncultivated field. D514
Poa compressa L. Moist soil in field by stream. D644
Poa pratensis L. Open, uncultivated field. D516
Poa sylvestris A. Gray.
*Secale cereale L. Sandy soil of railroad prairie. D668
*Sertaria faberii Herm. Moist soil of low reservoir. D761
Sertaria lutescens (Weigel) F. T. Hubb. Margin of lowland woods. D835
Sertaria viridis (L.) Beauv. Sandy soil along railroad. D590
Sorghum halapense (L.) Pers. Open prairie by railroad. D650
Sorghastrum nutans (L.) Nash. Dry waste soil by soil road. D1797
Spartina pectinata Link. Dry soil of upland wood margin. D1299
Sporobolus aspera (Michx.) Kunth.
Sporobolus heterolepis A. Gray.
Tridens flavus (L.) Hitch. Margin of lowland woods by reservoir. D887
*Triticum aestivum L. Open uncultivated field. D960

IRIDACEAE

*Belamcanda chinensis (L.) D. C. Dry, sandy soil of old cemetery. D1739
Sisyrinchium albidum Raf. Sandy soil of open prairie. D1635
*Sisyrinchium bermudinana L. Sandy soil of open prairie. D549

JUNCACEAE

Juncus dudleyi Wieg.
Juncus interior Wieg. Margin of moist woods along reservoir. D880
*Juncus tenius Willd. Edge of prairie by cutover woods. D571
*Juncus torreyi Coville. Dry soil along railroad. D808

LEMNACEAE

*Lemna minor L. Pond in open uncultivated field. D1530
*Spirodela polyrhiza (L.) Schleid. Standing water of railroad slough. D1552
*Wolffia columbiana Karst. Pond water in very old field. D1530a

LILACEAE

*Allium canadense L. Dry soil of upland hillside. D1497
*Allium vineale L. Dry prairie soil by railroad. D585
*Asparagus officinalis L. Open pasture field; dry soil. D618
Erythonium albidium Nutt. Moist, open woods. D1489
*Hemercallis fulva L. Margin of lowland woods by edge of field. D687
Polygonatum commutatum (Schultes) Dietr. Hillside of lowland woods. D702
*Scilla sibaracia Andr. Mud at edge of pond on golf course. D1490

Smilacina racemosa (L.) Desf. Hillside of moist lowland woods. D712
Smilacina stellata (L.) Desf.
Smilax ecirrhata (Englem.) S. Wats.
Smilax hispida Muhl. Moist lowland woods. D1612
Smilax lasioneura Hook. Sandy soil along railroad. D993
Trillum recurvatum Beck. Floodplain forest along Kaskaskia River. D1556
Uvularia grandiflora Sm. Moist valley of upland black oak forest. D1579
*Yucca filamentosa L. Sandy soil along soil road; dry habitat. D1327

NAIADACEAE

Naiad quadalupensis (Spreng) Magnus.

ORCHIDACEAE

*Liparis lilifolia (L.) Rich. Moist lowland woods by Kaskaskia River. D562

POTAMEGETONACEAE

*Potamegeton americanus C. & S. Open field pond. D1086
*Potamegeton foliosus Raf. Standing water of field pond. D1090
*Potamegeton pectinatus L. Old open field pond. D1400
Potamegeton pusillus L.

TYPHACEAE

*Typha angustifolia L. Mud bank of open field pond. D967
Typha latifolia L. Mud and standing water of old pond. D1673
*Typha angustifolia x latifolia. Open field pond in standing water. D1083

DICOTS

ACANTHACEAE

*Dianthera americana L. Very dry, sandy soil of upland field. D1463
Ruellia humilis Nutt. Dry sandy soil of upland prairie. D1679
Ruellia strepens L. Margin of upland prairie forest. D1035

ACERACEAE

Acer ginnala L. Old homestead site of prairie; very dry soil. D689
Acer negundo L. Along margin of lowland woods. D1567
Acer saccharinum L. Very wet lowland forest by Kaskaskia River. D1555
Acer saccharum Marsh. Found in upland oak-maple forest. D1601

AIZOCEAE

Mollugo verticillata L. Along margin of forest by reservoir. D814

AMARANTHACEAE

*Acnida tamariscina (Nutt) Wood. Wet sandy soil along river. D1019
Amaranthus graecizans L. Low open reservoir area in sandy soil. D748
Amaranthus retroflexus L. Along edge of stream in moist soil. D1248
*Amaranthus spinosa L. Dry sandy soil of upland prairie. D1744
*Froelichia gracilis (Hook) Moq. Prairie soil along railroad. D1753

ANACARDIACEAE

Rhus glabra L. In fence row along edge of cultivated field. D1438
Rhus radicans L. Edge of upland woods around base of tree. D955

ANNONACEAE

*Asimina triloba (L.) Dunal. Moist lowland wood's hillside. D1607

APOCYNACEAE

Apocynum cannibinum L. Sandy prairie soil by railroad. D682
Apocynum sibricum Jacq. Open prairie by railroad. D942

ARISTOLOCHIACEAE

Ascarum reflexum Bickn.

ASCLEPIDACEAE

*Ampelamus albidus (Nutt.) Britt. Margin of lowland woods. D1716
Asclepias incarnata L. Very wet soil along edge of river. D1017
*Asclepias purpurescens L. Open cultivated field by margin of woods. D1310
Asclepias sullvantii Englem. Sandy soil of open prairie. D787
Asclepias syriaca L. Dry soil along railroad bank. D677
*Asclepias tuberosa L. Low moist area of open prairie. D770
*Asclepias verticillata L. Moist soil of prairie by railroad. D773

BALSAMINACEAE

*Impatiens biflora Walt. Low marsh area with standing water. D1269a
*Impatiens pallida Nutt. Margin of oak-maple forest by lake. D863

BETULACEAE

Corylus americana Walt. Dry soil of old field upland prairie. D1516
Ostrya virginiana (Mill.) K. Koch. Margin of upland forest. D1546

BIGNONIACEAE

*Catalpa bignonioides Walt. Open waste lot of dry soil area. D1746
Campsis radicans L. Moist soil along railroad embankment. D578

BORAGINACEAE

Hackelia virginiana (L.) I. M. Tohinson. Moist lowland woods. D823
Lithospermum canescens (Michx.) Lehm.
Mertensia virginica (L.) Pers.
Myosotis virginica (L.) BSP. Moist lowland woods by lake. D1594

CAMPANULACEAE

Campanula americana L. Moist oak-maple forest. D841
*Specularia perfoliata (L.) A.D.C. Open uncultivated field with dry soil. D729

CANNABINACEAE

Humulus americanus Nutt. Margin of moist lowland woods. D757

CAPPARADIACEAE

Polanisia dodecandra (L.) D. C. Dry sandy soil of prairie by railroad. D586

CAPRIFOLIACEAE

*Lonicera japonica Thunb. Hillside of moist lowland woods. D1590
*Lonicera prolifera (Kirchn.) Rebd. Margin of lowland woods. D1472
Sambucus canadensis L. Dry soil along margin of upland woods. D555
Symphoricarpos orbiculatus Moench. Understory of upland forest. D826
Viburnum prunifolium L. Margin of moist lowland woods. D882

CARYOPHYLLACEAE

*Cerastium vulgatum L. Dry soil of open pasture. D624
Dianthus armeria L. Along soil road in dry upland prairie. D921
Sapronaria officinalis L. Sandy soil along railroad embankment. D658
Silene antirrhina L. Dry sandy soil along edge of prairie. D994
Silene stellata (L.) Ait. f. Very wet marsh area. D532
Stellaria media (L.) Vill.

CELASTRACEAE

Celastrus scandens L. Fence row of dry upland prairie. D1627
Euonymus alatus (Thunb.) Sieb.

CERATOPHYLLACEAE

*Ceratophyllum demersum L. Open field pond. D1402

CHENOPODIACEAE

Chenopodium album L. Waste area of uncultivated field. D821

*Salsola pestifer A. Nels. Edge of cultivated field of dry sandy soil. D1100

CISTACEAE

*Lechea tenuifolia Michx. Dry upland prairie soil. D707

COMPOSITAE

Achellea millefolium L. Dry soil of uncultivated field. D500
Ambrosia artemisiifolia L. Sandy soil of upland prairie. D1743
Ambrosia trifida L. Edge of uncultivated field in dry soil. D1257
Antennaria plantaginifolia (L.) Hook. South slope of upland woods. D1481
*Anthemis cotula L. Sandy soil along margin of cutover woods. D602
*Arctium minus (Hill) Bernh. Edge of uncultivated field in sandy soil D1431
Aster drummondii Lindl.
Aster exiguus (Fern) Rybd.
Aster lateriflorus (L.) Britt.
Aster novae-angliae L.
Aster ontarionis Wieg.
Aster pilosus Willd.
Aster praealtus Poir.
Aster shortii Lindl.
Aster simplex Willd.
Bidens aristosa (Michx.) Britt.
*Bidens bipinnata L. Dry sandy soil of upland prairie. D1777
Bidens comosa (A. Gray) Wieg.
*Bidens coronata (L.) Britt. Margin of upland forest in sandy soil. D1289
*Centaurea cyannus L. Uphill edge of ravine of upland prairie. D1107
*Chrysanthemum leucanthemum L. Open field of dry soil. D1048
Cichorium intybus L. Edge of road in sandy prairie soil. D685
*Cirsium arvense (L.) Scop. Prairie area along railroad. D1621
*Cirsium discolor (Muhl.) Spreng. Sandy soil by railroad. D1009
*Cirsium vulgare (Sav.) Tenore. Dry soil along edge of cemetery. D1764
*Coreopsis palmata Nutt. Prairie soil at edge of field. D783
Coreopsis tripteris L.
*Echinacea pallida Nutt. Open prairie along railroad. D788
Echinacea purpurea (L.) Moench. Hillside of moist woods by lake. D816
Eclipta alba Hassk. Moist soil along edge of reservoir. D739
Erigeron annuus (L.) Pers. Open prairie area by railroad. D945
Erigeron canadensis L. Margin of upland forest. D1243
Erigeron philadelphicus L. Edge of field by upland woods. D1496
*Erigeron strigosus Muhl. Old uncultivated field; dry soil. D519
Eupatorium altissimum L. Edge of cultivated on prairie soil. D1002
*Eupatorium coelestinum L. Along edge of river bank. D1024
Eupatorium perfoliatum L.
Eupatorium purpureum L. Margin of woods along lake shore. D838
Eupatorium rugosum Houtt.

Eupatorium serotinum Michx. Along river edge in sandy soil. D1018
Gnaphalium obtusifolium L.
*Helenium autumnale L. Floodplain of Kaskaskia River. D1030
Helianthus annuus L.
Helianthus divaricatus L. Along edge of woods by lake shore. D858
Helianthus grosseratus Martens. Open prairie area along railroad. D995
Helianthus rigidus (Cass) Desf.
Helianthus strumosus L. Open prairie area along railroad. D1006
*Heliopsis helianthoides (L.) Sweet. Wet lowland of reservoir. D749
Lactuca canadensis L. Dry, upland prairie area. D1307
Lactuca floridana (L.) Gaertn. Upland woods along lake. D893
Lactuca scariola L. Sandy prairie area along railroad. D1731
Liatris aspera Michx.
*Liatris pycnostachya Michx. Upland, dry uncultivated field. D1774
Parthenium integrifolium Michx. Open prairie area by railroad. D777
Ratibida pinnata (Vent) Barnh. Dry prairie area along railroad. D782
*Rudbekia hirta L. Open uncultivated field in dry soil. D502
*Rudbekia sullvantii Boynt & Beadle. Along edge of soil road. D1553
Rudbekia triloba L. Open area of oak-hickory forest. D1668
Senecio glabellus Poir. Margin of lowland forest. D1491
Silphium integrifolium Michx. Open prairie area along railroad. D778
Silphium lacinatum L. Open prairie area along railroad. D655
Silphium perfoliatum L. Along edge of Kaskaskia River. D1240
Silphium terebinthinacium Jacq. Open prairie soil by railroad. D1121
Solidago altissima L. Edge of upland forest. D1241
Solidago gigantea Ait.F. Edge of flowing stream. D1262
Solidago glaberrima Martens. Open prairie area by railraod. D790
*Solidago juncea Ait.f. Woody area along lake. D851
Solidago nemoralis Ait.f. Dry soil of open field. D1291
Solidago rigidus L.
Solidago ulmifolia Muhl. Moist lowland woods. D1274
*Tanacetum vulgare L. Dry soil along edge of uncultivated field. D1747
Taraxacum officinale L. Dry soil in cultivated field. D1383
*Tragopogon dubius Scop. Open prairie area along railroad. D671
Tragopogon porrifolius L.
Verbesina alternifolia (L.) Britt.
Verbesina helianthoides (L.) Britt. Open prairie area by railroad. D558
Vernonia altissima Nutt. Along edge of Kaskaskia River. D1238
Vernonia missurica Raf. Edge of forest along lake. D745
Xanthium chinense Mill.
Xanthium commune Britt.

CONVOLVULACEAE

Convolvulus americanus (Sims.) Greene. Open prairie at edge of field. D973
*Convolvulus arvensis L. Open prairie along fence row. D1636
Ipomea hederacea Jacq. Margin of lowland woods. D817
Ipomea pandurata (L.) G.F.W. Mey. Moist soil of lowland reservoir. D745
Ipomea purpurea (L.) Roth.

CORNACEAE

Cornus drummondi C. A. Mey. Margin of upland woods. D833
Cornus racemosa Lam. Edge of fence row on prairie. D552

CRASSULACEAE

*Sedum triphyllum (Hav.) S.F. Gray. Dry soil of upland prairie. D1806

CRUCIFEREAE

*Arabis laevigata (Muhl.) Poir. Very moist area of uncultivated field. D1549
*Barbarea vulgaris R. Br. Margin of small upland woods. D1485
*Brassica nigra (L.) Koch. Open, dry soil of waste field. D521
*Camelina macrocarpa Andra. Edge of upland prairie field. D1058
*Capsella bursa-pastoris (L.) Medic. Along stream in pasture. D635
Cardamine arenicola Britt.
Cardamine bulbosa (Schreb.) BSP.
Cardaria draba (L.) Desv.
Dentaria laciniata Muhl.
Descurainia brachycarpa (Richards) O.E. Schulz.
Draba brachycarpa Nutt.
Draba verna L.
*Iodanthus pinnatifida (Michx.) Steud. Moist floodplain of river. D1448
Lepidium campestris (L.) CR. Br. Dry sandy soil along railroad. D1520
Lepidium virginicum L. Open prairie area along railroad. D656
*Rorippa islandica (Oeder) Borba's. Open pasture by stream. D623
*Sisybrium officinale (L.) Scop. Dry soil of cultivated field. D915
Thlaspi arvense L.

CUPRESSACEAE

*Juniperus virginiana L. Inner edge of upland woods by stream. D1534

DIPSACACEAE

*Dipsacus sylvestris Huds. Sandy soil by railroad. D1660

EBENACEAE

*Diospyros virginiana L. Edge of upland forest in field. D1767

ERICACEAE

*Monotropa lanuginosa Michs. Upland oak forest. D845
Monotropa uniflora L.

EUPHORBIACEAE

Chamaesyce maculata L. Low clear reservoir area of moist sand. D760

Chamaesyce supina (Raf.) Moldenke. Very moist area of ravine. D746
Euphorbia corollata L. Open prairie area along railroad. D664
*Euphorbia marginata Pursh. Edge of pasture in upland prairie. D1814
Poinsetta dentata (Michx.) Small. Very dry sandy soil along railroad. D649

FAGACEAE

Quercus alba L. Edge of young forest in upland area. D1548
Quercus imbricaria Michx. Along bank of Kaskaskia River. D1559
Quercus macrocarpa Michx. Edge of fence row in dry upland prairie. D1436
*Quercus marilandica Moench. Margin of lowland woods in dry soil. D557
Quercus muhlenbergii Englem. Dry upland oak forest. D1316
*Quercus rubra L. Edge of dry upland oak-hickory forest. D1547
Quercus stellata Wang.
*Quercus velutina Lam. Upland oak-hickory forest. D1680

FUMARIACEAE

Dicentra cucullaria (L.) Bernh. Slope of upland oak forest. D1486

GENTINACEAE

*Frasera carolinesis Walt. Slope in middle of oak forest. D1039
Gentiana flavide A. Gray.
*Sabatia angularis (L.) Pursh. Dry soil of uncultivated field. D691

GERANIACEAE

*Geranium carolianum L. Along edge of priaire by railroad. D1494
Geranium maculatum L. Moist lowland forest. D1620

GROSSULARIACEAE

Ribes missouriense Nutt. Fence row in prairie soil. D922

HIPPOCASTANACEAE

*Aesculus hippocastanum L. Along edge of road by upland forest. D1772

HYDRANGEACEAE

*Hydrangea arborescens L. Along edge of river in moist sand. D1719

HYDROPHYLLACEAE

Ellisia nyctelea L.
Hydrophyllum virginianum L.

HYPERICACEAE

Hypericum perforatum L. Open pasture in dry soil. D620
Hypericum punctatum Lam. Dry upland prairie in uncultivated field. D722
Hypericum sphaerocarpum Michx. Margin of upland oak forest. D798

ILLECEBRACEAE

*Paronychia canadensis (L.) Wood. Margin of upland woods by lake. D580

JUGLANDACEAE

Carya cordiformis (Wang) K. Koch. Along sandy bank of Kaskaskia River. D1554
*Carya glabra (Mill) Sweet. Upland woods along shore of lake. D889
Carya ovata (Mill) K. Koch. Open uncultivated field in dry soil. D1405
Carya tomentosa (Poir.) Nutt. Edge of field on prairie. D888
Juglans nigra L. Edge of small lowland woods. D1542

LABIATAE

Agastache neptoides (L.) Ktze. Moist soil along edge of stream. D1247
Agastache scrophulariafolia (Willd) Kuntze.
Blephilia ciliata (L.) Benth. Ravine floor in lowland woods. D701
Blephilia hirsuta (Pursh) Benth.
Hedeoma pulegiades (L.) Bers.
Isanthus brachiatus (L.) B.S.P.
*Leonurus cardiaca L. Very wet lowland woods in shady area. D692
*Lycopus americanus Muhl. Dry upland area by woods. D1293
Mentha candensis L.
Monarda bradbariana Beck. Open prairie in dry sandy soil. D564
Monarda fistulosa L. Prairie soil along railroad. D775
*Nepta cartaria L. Open uncultivated field in dry soil. D1430
*Physostegia speciosa Sweet. Moist soil of lowland woods. D1277
*Physostegia virginiana (L.) Benth. Moist soil of prairie area. D1703
Prunella vulgaris L. Open prairie area along edge of field. D803
Pycnanthemum flexuosum (Walt) B.S.P. Upland prairie soil. D556
Pycnanthemum pilosum Nutt. Woods of upland prairie area. D898
Pycnanthemum virginianum (L.) Dur. & Jacks. Open prairie area. D772
Scutellaria lateriflora L.
*Scutellaria nervosa Pursh. Marsh land area of prairie. D540
Scutellarai ovata Hill. Edge of woods along prairie. D547
*Stachys arenicola Britt. Along edge of stream in mud. D1250
Teucrium canadense L. Open pasture land of dry soil. D872
*Teucrium occidentale Gray. Edge of prairie along railroad. D792

LAURACEAE

Sassafrass albidium (Nutt) Nees. Margin of moist lowland forest. D1562.

LEGUMINOSAE

Amphicarpa comosa (L.) G. Don. Edge of dry upland prairie. D1780
*Baptisia leucantha T & G. Along fence row in lowland prairie. D1569
Cassia fasiculata Michx. Along railroad in dry prairie area. D772
Cassia marilandica L. Dry upland prairie in uncultivated field. D1778
*Cercis canadensis L. Dry soil of small woods in upland prairie. D1314
*Coronilla varia L. Margin of upland forest. D522
Desmodium canadensis (L.) DC.
Desmodium glutinosum (Muhl.) Wood. Margin of lowland woods by lake. D860
Desmodium illinoense Gray. Open prairie along railroad. D776
Desmodium nudiflorum (L.) DC. Edge of uncultivated field. D703
Desmodium paniculatum (L.) DC.
Gleditsia tricanthos L. Edge of forest along moist ravine. D718
*Glycine max (L.) Merr. Sandy soil in upland prairie. D981
Lespedeza capitata Michx. Open field of dry upland prairie. D1294
Lespedeza stipulaceae Maxim.
*Lespedeza violacea (L.) Pers. Along railroad in dry prairie. D1700
*Lespedeza virginica (L.) Britt. Upland oak-hickory forest. D1757
*Lotus corniculatus L. Along small stream through uncultivated field. D630
Medicago lupulina L. Very dry upland prairie in open field. D510
Medicago sstiva L. Dry soil of ravine in open upland prairie. D1109
Melilotus alba Desr. Along railroad in open prairie. D666
Melilotus officinalis L. Upland prairie in uncultivated field. D670
*Petalostemum purpureum (Vent.) Rybd. Open prairie in sandy soil. D785
Psoralea onobrychis Nutt. Dry soil along margin of upland woods. D920
*Robinia pseudocacia L. Edge of field in upland prairie. D1053
Trifolium hybridum L. Open pasture field in sandy soil. D518
Trifolium pratense L. Open field of dry upland prairie. D513
*Trifolium procumbens L. Bottom of ravine in small upland woods. D1044
Trifolium repens L. Along railroad in open prairie. D676
*Vicia villosa Roth. Edge of ditch by upland forest. D1324

LOBELIACEAE

*Lobelia cardinalis L. Very moist lowland woods in shade. D1270
Lobelia inflata L. Open field in upland prairie. D878
*Lobelia leptostachys A. DC. Open field in dry sandy soil. D795
Lobelia siphlitica L. Uncultivated field in margin of dry woods. D690

LYTHRACEAE

Ammannia coccinea Rettb.
Cuphea petiolata (L.) Koch. Dry upland prairie area along field. D1784
Lythrum alatus Pursh. Open prairie area along railroad. D801

MAGNOLIACEAE

*Liriodendron tulipefera L. Margin of lowland woods along river. D1533

MALVACEAE

*Abutilon theophrasti Michx. Sandy soil of cultivated field. D1007
*Althea rosea (L.) Cav. Open, uncultivated field of prairie. D1473
*Hibiscus militatis Cav. Along river in lowland marsh area. D1227
*Malva neglecta Wallr. Dry sandy soil of cultivated field. D909
Sida spinosa L. Margin of woods along lake shore. D818

MENISPERMACEAE

Maclura pomifera (Raf.) Schrad. Edge of lowland woods. D1122
*Morus alba L. Edge of open uncultivated field. D512
Morus rubra L. Open field by margin of upland woods. D1441
*Morus tatarica L. Very old field of no cultivation. D1521

NYCTAGINACEAE

*Mirabilis nyctaginea (Michx.) MacM. Along railroad in dry prairie. D660

ONOGRACEAE

*Circaea latifolia Hill. Upland forest along lake shore. D897
Gaura biennis L. Along railroad in dry soil of upland prairie. D1012
Oenothera biennis L. Along edge of cultivated field in prairie. D1287
*Oenothera speciosa Nutt. Open prairie along railroad. D1626

OLEACEAE

*Fraxinus lanceolata Borkh. Margin of upland forest. D1106

OXALIDACEAE

Oxalis dillenii Jacq. Edge of prairie by cultivated field. D933
Oxalis stricta L. Uncultivated field of dry upland prairie. D710
Oxalis violacea L.

PAPAVERACEAE

*Sanguinaria canadensis L. Moist lowland woods. D1618

PENTHORACEAE

Penthorum sedoides L. Dry upland prairie area. D1248

PHYRMACEAE

*Phryma leptostachya L. Edge of lowland forest by stream. D727

PHYTOLACCACEAE

*Phytolacca americana L. Hillside of ravine in lowland forest. D700

PINACEAE

*Pinus echinata Mill. Open upland prairie in dry sandy soil. D1815

PLANTAGINACEAE

*Plantago aristata Michx. Dry soil of 1 year old field. D693
Plantago lanceolata L. Edge of prairie by cultivated field. D680
Plantago rugelli Dec. Along edge of stream in cultivated field. D613
*Plantago virginica L. Open field in upland prairie. D1046

PLATANACEAE

*Platanus occidentalis L. Along edge of river in lowland woods. D1537

PODOPHYLLACEAE

Podophyllum peltatum L. Moist lowland forest. D1578

POLEMINACEAE

Phlox divaricata L. Along edge of railroad in open prairie. D1488
Phlox glaberrima L.

POLYGALACEAE

Polygala senega L. Moist lowland woods in open space. D844
*Polygala verticillata L. Open uncultivated field in upland prairie. D728

POLYGONACEAE

Fagopyrum esculentum Moench.
Polygonum aviculare L. Along edge of stream in lowland prairie area. D857
Polygonum convolvulus L. Along edge of cultivated field in dry soil. D674
Polygonum hydropiper L. Open field along edge of lowland prairie. D1273
Polygonum hydropiperoides Michx. Margin of woods around lake. D815
Polygonum lapathifolium L. Margin of lowland moist woods. D864
*Polygonum orientale L. Dry soil of 1 year old field. D908
Polygonum pennsylvanicum L. Low moist area of prairie. D1029
*Polygonum persicaria L. Low moist area at base of woods. D764
Polygonum punctatum Ell.
Polygonum ramosissimum Michx.
Polygonum virginianum L. Margin of moist lowland woods. D1657
*Rumex acetosella L. Along edge of stream in uncultivated field. D638
*Rumex altissima Wood. Open pasture in dry upland prairie. D622
*Rumex crispus L. Open uncultivated field in upland prairie. D517

Rumex verticillatus L. Open field along edge of lowland woods. D1455

PORTULACACEAE

Claytonia virginica L. Edge of upland forest. D1484
*Portulaca oleracea L. Floodplain of Kaskaskia river in wet soil. D1237

PRIMULACEAE

Lysimachia ciliata L. Waste area along railroad in dry soil. D524
Lysimachia lanceolata Walt. Open prairie along edge of woods. D568
Lysimachia nummularia L. Dry hillside of upland prairie. D1504
*Samolus parviflorus Raf. Very wet lowland area by reservoir. D765

RANNUCULACEAE

Actaea alba (L.) Mill.
*Anemone virginiana L. Dry uncultivated field by edge upland forest.. D713
*Delphinium ajacis L. Edge of soil road in dry sandy soil. D902
Delphinium tricorne Michx.
Delphinium carolinium Michx.
Myosurus Minimus L.
Ranunculus abortivus L.
*Ranunculus fasicularis Muhl. Edge of pond and stream. D1483
*Ranunculus longirostris Godr. Open pond water. D977
Ranunculus micranthus Nutt.
Ranunculus recurvatus Poir.
Ranunculus septentrionalis Poir.
Thalictrum dioicum L.
Thalictrum revolutum DC. Moist lowland forest. D1649

RHAMNACEAE

Ceanothus americanus L. Along edge of uncultivated field; dry soil. D584

ROSACEAE

Agrimonia gryposepla Wallr. Open uncultivated field in upland prairie. D734
Agrimonia pubescens Wallr. Margin of upland woods at edge of pond. D843
Agrimonia rostellata Wallr.
*Crataegus crusgalli L. Very old dry uncultivated field. D1525
*Crataegus mollis (T & G) Scheele. Open uncultivated field of upland prairie. D509
*Crataegus pruinosa (Wendl.) K. Koch. Edge of uncultivated field. D1511
*Crataegus viridis L. Along ditch bank of lowland woods. D1602
Fragaria virginiana Duch. Open prairie area along railroad. D1633
Geum canadense L. Old uncultivated field in dry soil. D695

Geum lacinatum Murr. Margin of upland forest. D1269
Geum vernum (Raf.) Torr. & Gray.
Gillenia stipulata (Muhl.) Trel. Open upland prairie. D563
Malus ioensis (Wood) Britt. Edge of white oak forest. D1583
*Potentilla monspliensis L. Old uncultivated field in dry prairie. D906
*Potentilla recta L. Along edge of railroad in open prairie. D596
Potentilla simplex Michx. Open prairie area by railroad. D1623
*Prunus americana Marsh. Margin of upland woods; dry soil. D1570
Prunus serotina Ehrh. Open field in dry upland prairie. D1081
Rosa carolina L. Along edge of fence row in upland prairie. D1054
Rosa setigera Michx. Open uncultivated field of upland prairie. D508
*Rubus allegheniensis Proter. Along edge of dry railroad embankment.. D1057
Rubus flagellaris Willd. Edge of old field in prairie. D1517
Rubus occidentalis L. Margin of upland forest. D554
*Rubus ostryifolius Tybd. Edge of upland forest. D551
*Rubus pennsylvanicus Poir. Edge of fence row in open prairie. D780

RUBIACEAE

Cephalanthus occidentalis L. Along edge of river floodplain. D1471
Diodia teres Walt. Very dry soil along railroad. D1735
Galium aparine L.
Galium circaezens Michx. Open upland uncultivated field. D726
Galium concinnum T & G. Open prairie along railroad. D583
*Houstonia lanceolata (Poir.) Britt. Dry soil of 1 year old field. D918

RUTACEAE

Ptelea trifoliata L. Margin of lowland woods. D1614
Zanthoxylum americanum Mill. Open field by edge of pond. D1075

SALICACEAE

*Populus alba L. Margin of lowland woods. D604
Populus deltoides Marsh. Around edge of field pond. D1080
Salix interior Rowlee. On bank of flowing stream. D1104

SAXIFRAGACEAE

*Heuchera hirsuticaulis (Wheelock) Rybd. Open prairie area. D579

SCROPHULARIACEAE

*Aureolaria flava (L.) Farw. Upland oak-hickory forest. D1760
*Chaenorrhinum minus (L.) Lange. Along railroad bank; dry soil. D592
*Gratiola neglecta Torr. Upland oak-hickory forest. D1493
*Leucospora multifida (Michx.) Nutt. Lowland woods by lake shore. D896
*Linaria vulgaris Hull. Edge of soil road along old field. D930
*Lindernia alba (L.) Pennell. Upland prairie area in old field. D1088

Mimulus alatus Ait.f.
*Mimulus ringens L. Along edge of Kaskaskia River. D1027
Penstemon claycosus Small.
Penstemon digitalis Nutt. Along railroad in dry sandy soil. D1066
Penstemon pallidus Small.
Scrophularia marilandica L. Upland oak-hickory forest. D1646
*Verbascum blattaria L. Along edge of stream. D979
Verbascum thapsus L. Open prairie area in dry soil. D542
Vernonia arvensis L. Open uncultivated field of upland prairie. D732
Vernonia peregrina L. Along edge of stream. D647
Veronicastrum virginicum (L.) Farw. Margin of woods along lake. D774

SIMARABACEAE

*Ailanthus altissima (Mill) Swingle. Waste lot of farm area. D1748

SOLANACEAE

Datura strumonium L. Open waste lot of farm. D1713
Physalis heterophyla Nees.
Physalis pubscens L.
Physalis subglabrata Mack & Buck. Open cultivated field. D1076
Solanum carolinense L. Margin of prairie along cultivated field. D832
Solanum nigrum L. Upland uncultivated field; dry soil. D725

STAPHYLEACEAE

Staphylea trifolia L. Moist lowland forest. D1600

TILIACEAE

*Tilia americana L. Along upper bank of Kaskaskia River. D1557

ULMACEAE

Celtis occidentalis L. Silver maple forest in floodplain of river. D1563
Ulmus americanus L. Edge of flowing stream. D1617
Ulmus rubra Muhl. Young lowland forest. D1587

UMBELLIFEREAE

Chaerophyllum procumbens (L.) Crantz.
Conium maculatum L. Along railroad in dry prairie. D982
Cryptotaenia canadensis (L.) DC. Margin of woods by stream. D892
Daucus carota L. Along edge of field in dry prairie area. D681
Eryngium yuccifolium Michx. Marsh-like area of open prairie. D784
Osmorhiza claytonii (Michx.) Clarke.
Osmorhiza longistylis (Torr.) DC. Along edge of river and woods. D1560

Pastinaca sativa L. Along edge of field in dry prairie area. D678
*Sanicula canadense L. Dry upland forest. D575
Sanicula gregaria Bickn. Uncultivated field in lowland prairie. D716
Taenida integerrima (L.) Drude.
*Thaspium barbinode (Michx.) Nutt. Margin of upland woods. D1545
Torilis japonica (Houtt) DC. Along railroad in dry prairie area. D669
Zizia aurea (L.) Koch.

URTICACEAE

Laportea canadensis (L.) Gaud. Very moist lowland forest. D1267
*Parietaria pennsylvanica Muhl. Very moist lowland forest. D699
Pilea pumila (L.) A. Gray.

VERBENACEAE

*Phyla lanceolata (Michx.) Greene. Mud at edge of flowing stream. D625
*Verbena canadensis (L.) Britt. Very young field in dry soil. D927
Verbena hastata L. Margin of upland forest. D873
Verbena stricta Vent. Young uncultivated field in dry soil. D754
Verbena urticifolia L. Low moist area of reservoir. D752

VIOLACEAE

Viola eriocarpa Schw.
Viola papillionacea Pursh.
*Viola sororia Willd. Moist area of upland forest. D1479

VITACEAE

*Parthenocissus quinquefolia (L.) Planch. Moist lowland woods. D1589
Vitis aestivalis Michx. Margin of lowland woods. D1591
*Vitis cinera Englem. Edge of soil road; in fence row. D1427
Vitis raparia Michx. In fence along soil road; dry soil. D954

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