

THE VASCULAR FLORA OF LUSK CREEK CANYON

by

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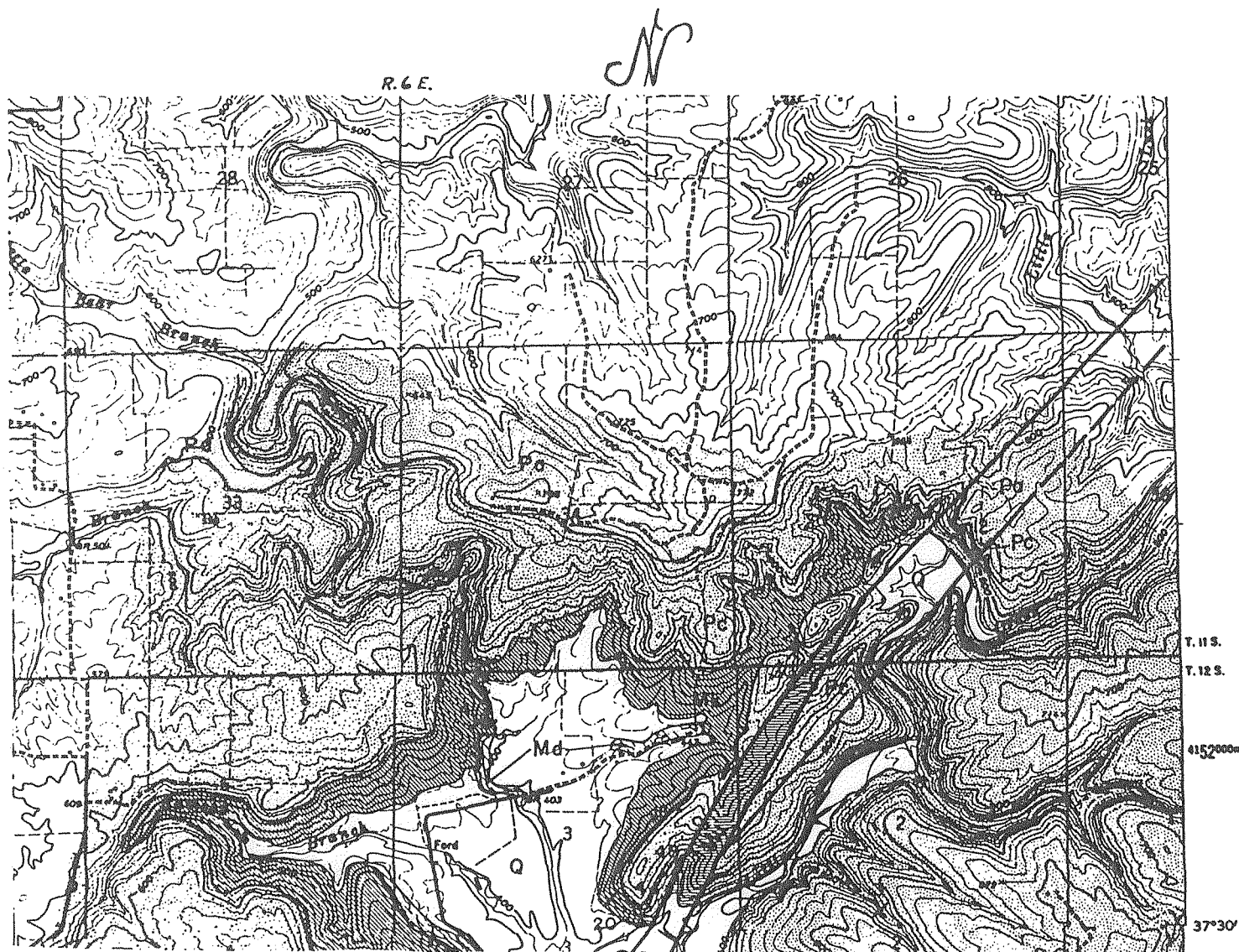
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INTRODUCTION

The study area includes a somewhat limited area along Lusk Creek which is located in southeastern Illinois in north-central Pope County. The area extends through sections 3, 10, 27, 28, 33 and 34 of Township 11 South, Range 6 East (Fig. 1). The area features a clear rock bottom stream with several tributaries, massive bluffs of Pennsylvanian sandstone, deep ravines, mesic woods, old fields, and pine plantations. It covers approximately 1400 acres and is managed for the most part by the United States Forest Service.

Landmarks such as Lusk Creek Gorge, the Indian Kitchen (an area reportedly utilized by historic Indians), and the Old Stone Wall (believed to have been built during the Archaic Period) have long been points of interest to scientists in various fields (Fig. 2). Botanists have made several trips to the area which resulted in the discovery of many interesting plants and plant communities.

The objectives of this study were: (1) to determine the species of vascular plants (2) to identify and describe the plant communities, and (3)



LEGEND

- P a PENNSYLVANIAN (ABBOTT)
- P c PENNSYLVANIAN (CASEYVILLE)
- M k MISSISSIPPIAN (KINKAID)
- M d MISSISSIPPIAN (DEGONIA)
- M u MISSISSIPPIAN (UNDIFFERENTIATED)
- Q RECENT (ALLUVIUM)

CONTOUR LINE 

415'±000m.

SCALE 1:24,000

CONTOUR INTERVAL 20 FEET
 DOTTED LINES REPRESENT BREAK IN CONTOURS
 10 FEET BELOW SEA LEVEL

37°30'

Figure 1. Topographic and geologic map of the study area.

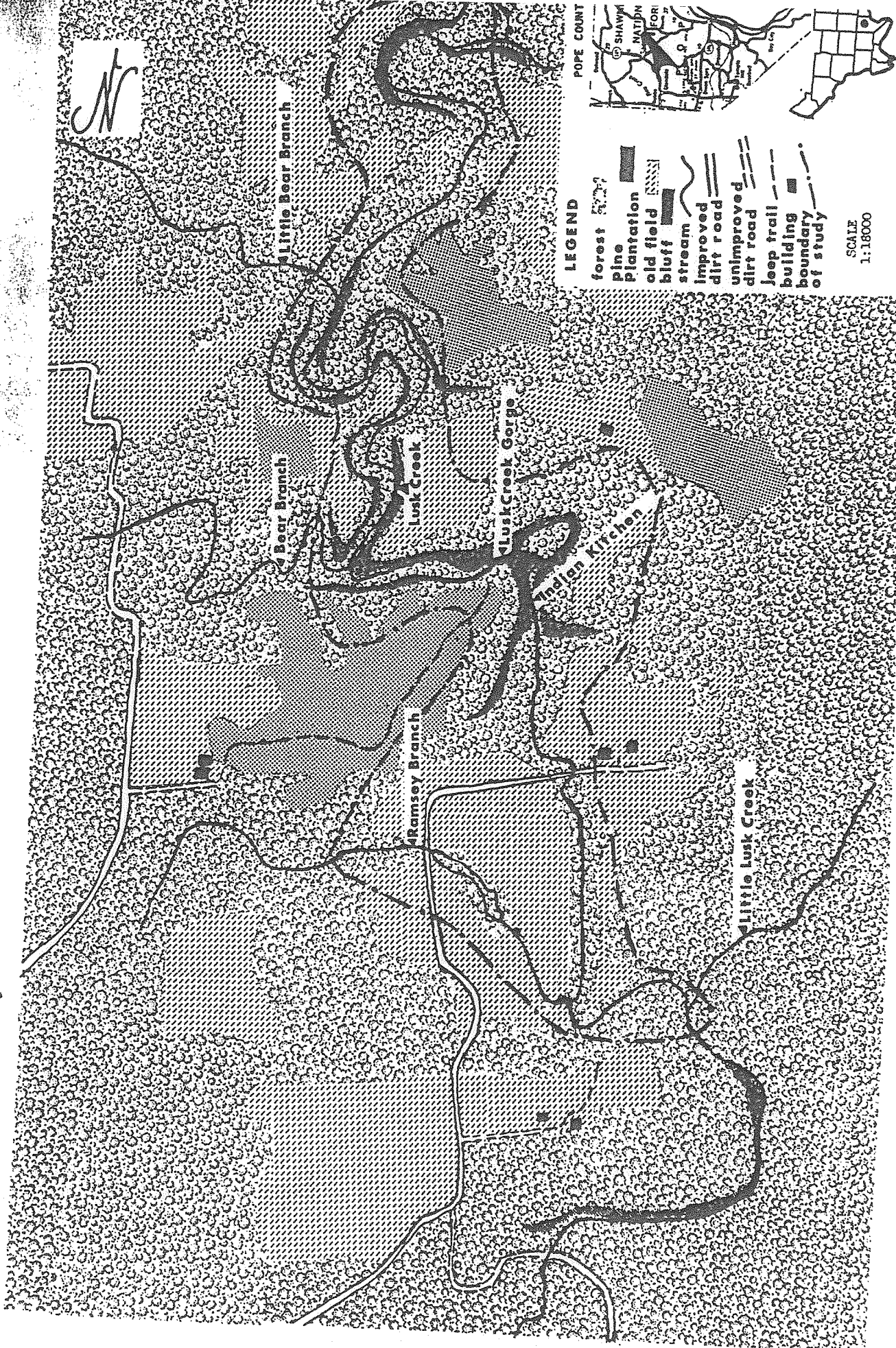


Figure 2. Ground cover map of the study area.

to attempt to correlate the floristic affinities of the plants in the area.

METHOD AND MATERIALS

The study was begun in January 1966 and continued until May 1968. Collecting trips were designed so that all of the area could be covered within a span of two days. However, some areas proved to be more productive than others. As a result of this productive differential it became necessary to spend more time in the lowland woods and on the wet ledges than on the dry bluff tops and in the rocky upland woods. All specimens collected were carried to the laboratory in a vasculum. The plants were identified and processed for the herbarium as soon after collection as possible. Voucher specimens are housed in the herbarium of Southern Illinois University, Carbondale, Illinois. The treatment of nomenclature presented in this paper follows that of Fernald 1950, Gleason 1952, Mohlenbrock and Voigt 1959, Jones 1963, and Steyermark 1963.

TOPOGRAPHY AND GEOLOGY

From east to west within the study area a tremendous amount of relief is displayed (Fig. 1). In the area of Lusk Creek Gorge, the ridge top to the

northeast rises to an elevation of 710 feet above sea level while the stream elevation is only 400 feet above sea level; this entire topographic feature can be covered in a short distance of one-quarter mile. This geologic feature was created 200,000 years ago by the runoff waters from the melt of the Illinois Glacier cutting its way through massive blocks of Pennsylvania sandstone. In addition to these major physiographic features, many unusual microhabitats were formed which were occupied at an earlier geologic time by vegetation that today extends the range of certain plants the length and width of the state. The largest portion of the study area is forested; however, many old fields remain on the ridges and rolling hills which occur between the drainage basins in the area. Many of these fields now support pine plantations (Plate I). As elevation declines from the latter a dry upland type of forested area is found along the bluff tops which finally give way to intermittent islands of vegetation and large stretches of open sandstone. A deep forest is found between the base of the bluff and the stream. On occasion the water of the stream fills the entire canyon floor. This condition is largely responsible for preservation of the study area, since cutting



PLATE I. - Air photo - the hairpin curve along Lusk Creek.

or pasturing adjacent to the stream is highly impractical. Consequently, the areas of greatest interest lie between the bluffs. The distance from one bluff to the other varies considerably; with an average distance of approximately 100-150 feet.

Pounds and Battery Rock sandstone are the major outcroppings, (Fig. 1) while near the southern

limit of the study area both shale and limestone are found. A number of fossils of "scale trees" Lepidodendron spp. and Sigillaria spp. have been found on the bluffs and along the edges of the stream.

Four creeks other than Lusk Creek, are found within limits of the study area: Little Bear Branch on the north, Bear Branch near Lusk Creek Gorge, Ramsey Branch near the confluence of Lusk and Little Lusk Creek, and Little Lusk Creek on the south (Fig. 2). Little Lusk is the largest of the four and drains the northeastern part of the Lusk Creek basin. All four streams flow over sandstone bedrock and Little Lusk Creek flows in part over small outcroppings of shale. The bottoms of all these streams consist of gravel and large rubble broken away from the adjacent bluffs.

The bluffs in the area reach heights which are unusual for Illinois; heights of 90-100 feet are not uncommon in the area (Fig. 1). All uplands of the Lusk Creek area are covered by brownish silt which was deposited during glacial periods. The soil reported in the study area is mapped as the Grantsburg-Zanesville soil association. The Grantsburg silt-loam is moderately deep and is slowly permeable with strong fragipans. The Zanesville silt-loam is naturally well-drained acidic soil, low in plant nutrients. The other

soils of the area are shallow and composed of Wellston and Muskingum silt-loam (Walter Parks, Jackson County Soil Conservation Service, Personal Communication).

The climate of this area is considered a humid sub-tropical forest climate (Trewartha, 1943). The irregular relief in this area appears to affect the rainfall distribution. Warm moist air moving over the flat Coastal Plain Province of the south is forced to rise abruptly as it meets the hills and produces an increase in shower activity (Roberts, et al., 1957).

Precipitation at Glendale (6.5-7.0 miles west of the study area) averages 46.46 inches per year with an average of 3.915 inches per month during the growing season, April to September (Dixon Springs Agriculture Station Report, 1957). Due to the high rate of run-off, slow permeability of the soils, and the high rainfall-evaporation ratio, little of the actual precipitation is utilized by the vegetation. The mean annual temperature at Glendale averages 57.2° F. with monthly norms for June, July, and August of 74.8° F., 78.1° F., and 77.4° F. respectively (U.S. Department of Commerce, Weather Bureau, 1963). The average number of frost-free days for the study area totals 187 (Page, 1949).

THE PLANT COMMUNITIES

The variety of plant communities found along Lusk Creek may be attributed in part to the erratic direction of flow of the stream which creates a favorable evapo-transpiration ratio in a number of places along its course. Within the environs of the Lusk Creek Gorge-Indian Kitchen area all directional exposures are found (Fig. 1). In the Gorge area a striking north-south directional exposure is displayed while the Indian Kitchen area displays an east-west exposure. As a result a deep woods, a xeric bluff top, a cool moist sphagnum wall, and a scrub-oak community occurs within a very small distance of each other.

The major plant communities are described and discussed below.

Stream - One of the most striking features of the area is the clear rock-bottom stream and the immediate zone of vegetation bordered on both sides by sandstone bluffs. The banks of the stream vary in percent of grade as they approach the edge of the stream; sheer dropoffs of over 100 feet are found as well as gradual sloping banks. The stream is not particularly rich with angiosperms; however, a number

of riparian plants are associated with this habitat (Plate II). The dominant plant in the stream is water-willow (Dianthera americana) and can be found in the riffle areas between the pools of the stream. Another prominent aquatic plant is the yellow pond lily (Nuphar advena) and can be found growing in the shallow water at the ends of the pools.



PLATE II. - Stream photo - one of the many deep pools along Lusk Creek.

The riparian community is dominated by river birch (Betula nigra), smooth alder (Alnus serrulata), black willow (Salix nigra), sycamore (Plantanus occidentalis), and deciduous holly (Ilex decidua). The vines are represented by cat-brier (Smilax spp.), wild yam (Dioscorea villosa), morning-glory (Ipomoea purpurea), and tear-thumb Polygonum sagittatum). Herbaceous plants found near the stream include sharp-winged monkey-flower (Mimulus alatus), a sedge (Carex torta), and several lobelias (Lobelia cardinalis, L. siphilitica, and L. inflata). Interesting thallophytes found in the stream include two genera of fresh-water red algae. These are Lemanea and Batrachospermum both of which occur on the rocks in the riffles during the summer months.

Lowland Forest - The richest plant community sampled was in the lowland forest or deep ravines. These areas are usually found on somewhat flat ground with moderately deep soil. With the dense canopy of the trees and the canyon-like influence of the bluffs, this community is characterized by cool air currents and dense undergrowth of trees and shrubs. This habitat is never very extensive in contiguous tracts but is often found erratically along the drainage. However, the high sandstone bluffs

which occur throughout the area have protected these ravines and bottomland communities. These communities either extend from the stream to the base of the bluff or from the stream to the beginning of the wooded slope depending on the point of observation in the study area (Plate III). The topography is varied and the aspect continually changing. Large blocks of sandstone have separated from the adjacent bluffs creating small blind canyons and narrow passages within the forest. The forest is composed of a number of tall trees which reach and overtop parts of the nearby bluffs. The dominant trees are beech (Fagus grandifolia), sugar maple (Acer saccharum), red oak (Quercus rubra), bitternut hickory (Carya cordiformis), butternut (Juglans cinerea), white oak (Quercus alba), tulip tree (Liriodendron tulipifera), sourgum (Nyssa sylvatica), and hackberry (Celtis occidentalis).

Characteristic intermediate canopy plants include young maples and paw-paw (Asimina triloba). The shrub layer is composed largely of bladder-nut (Staphylea trifolia), spice bush (Lindera benzoin) and paw-paw. There is a great variety of herbaceous plants found in the understory and are for the most part vernal. Some of these plants are violets (Viola spp.), dutchman's breeches (Dicentra cucullaria), bloodroot



PLATE III. - Lowland Forest photo - A beech-maple forest adjacent to the stream and between the high bluffs.

(Sanguinaria canadensis), spring beauties (Claytonia virginica), and hepatica (Hepatica acutiloba). Later the yellow dog's-tooth violet (Erythronium americanum), large-flowered bellwort (Uvularia grandiflora), jack-in-the-pulpit (Arisaema triphyllum), wild ginger (Asarum reflexum), trilliums (Trillium spp.), and rue anemone (Anemonella thalictroides) are found throughout the community. Some of the rarer plants found in this community include the lady's slipper orchid

(Cypripedium calceolus var. parviflora), showy orchid (Orchis spectabilis), spring coral root (Corallorhiza wisteriana), shay's trillium (Trillium recurvatum f. shayii), clubmoss (Lycopodium lucidulum and Lycopodium porophilum), and pennywort (Obolaria virginica). The beginning of summer is marked by the flowering of valerian (Valeriana pauciflora), bellflower (Campanula americana), indian pink (Spigelia marilandica), and penstemons (Penstemon spp.). The flowering of fall coralroot orchid (Corallorhiza odontorhiza), richweed (Collinsonia canadensis), indian pipe (Monotropa uniflora), and black cohosh (Cimicifuga rubifolia) notes a gradual appearance of autumn. The flowering of broad-leaved goldenrod (Solidago latifolia), common blue aster (Aster cordifolius), and snakeroot (Eupatorium spp.) signal the end of the growing season in this community.

Wet Bluffs and Ledges - The meandering of Lusk Creek results in creating microhabitats which are perhaps unique for Illinois. As the elevation declines from the top of the ridges a series of shelves or large steps have been carved from the sides of the canyon. In areas of north-facing ledges a moist condition may be found. The ledges vary in width from a matter of a few inches to several feet

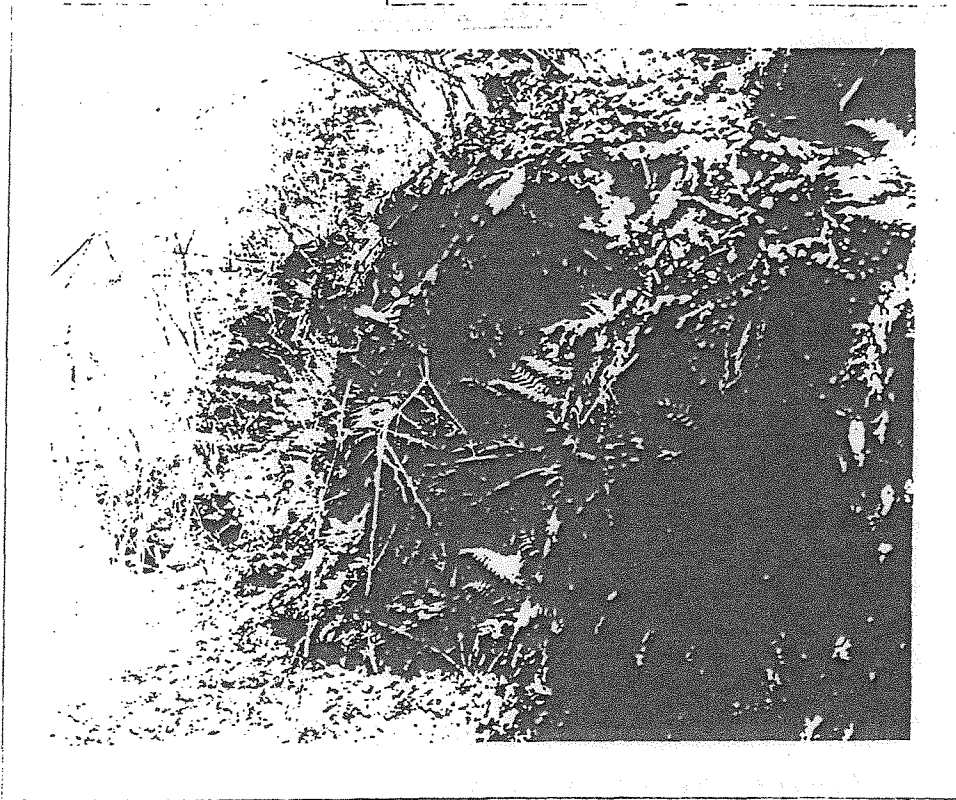


PLATE IV. - Wet Bluffs and Ledges -
 Many ferns and mosses are found in
 this cool, moist habitat.

(Plate IV). In two such habitats the walls are draped with peat moss (Sphagnum spp.). These species are characteristic of northern bogs. Other interesting and unusual plants found in these habitats include clubmoss (Lycopodium flabelliforme and L. porophilum), open and closed gentians (Gentiana andrewsii and G. saponaria), hay-scented fern (Dennstaedtia punctilobula), yellow honeysuckle (Lonicera flava var. flavescens), cinnamon fern (Osmunda cinnamomea), royal fern (Osmunda

regalis), a rare sedge (Carex tonsa), farkleberry (Vaccinium arboreum), and low bush blueberry (Vaccinium vacillans).

The transition on the wet ledges and bluffs from one season to the next is not distinct. The prevernal aspect is subtly marked with the inconspicuous flowering of several trees; shadbush (Amelanchier arborea) and winged elm (Ulmus alata) are the most prominent. The green hue of spring denotes the arrival of true vernal aspect in this habitat. Others characterizing this community in the spring include three-leaved stonecrop (Sedum ternatum), smooth rock-cress (Arabis laevigata), Pennsylvania bitter-cress (Cardamine pennsylvanica), pussy-toes (Antennaria plantaginifolia), and small-flowered buttercup (Ranunculus abortivus). The summer aspect of the community is marked by the addition of such plants as rattlesnake master (Eryngium yuccifolium), narrow-leaved loosestrife (Lysimachia lanceolata), and French's shooting star (Dodecatheon frenchii); the latter occurs under the sandstone overhangs. A number of ferns including the marginal fern (Dryopteris marginalis), lady fern (Athyrium filix-femina), and royal fern also characterize the cool moist sandstone overhangs. The summer gradually grades into autumn with the appearance

of tall white lettuce (Prenanthes altissima), wood reed-grass (Cinna arundinacea), blue-stemmed goldenrod (Solidago caesia), and common blue woods aster.

Associated with the moist mats of Sphagnum moss the open and closed gentians are evident with their blue nodding flowers. The dark red berry of partridge-berry can be found on the ledges and at the base of the ledges in the fall.

Dry Bluff - Less than 25 yards across the canyon from the cool, moist north-facing bluff occurs a xeric south-facing bluff. As reported for the north-facing ledges and bluffs, a series of wide to narrow steps or ledges have been carved in the sandstone bluffs and they approach the bottom of the canyon. The individual shelves vary in height; the average would approximate 5-6 feet. The dry bluff exhibits a number of different stages in plant succession. The edge of the sandstone bluff is almost devoid of all plant life. The only evident vegetation includes lichens and mosses (Table I). This area will range from a few inches to 12-15 feet in width. (Plate V). Small to relatively large islands of thin soil occur adjacent to the mosses and lichens. Perennials and annuals, plants which persists year after year and those which die every year and depend upon a complete new plant

TABLE I
 LICHENS CHARACTERISTIC OF THE VARIOUS
 HABITATS IN THE VALLEY OF LUSK CREEK

Habitats	Substrates		
	Trees	Sandstone	Soil
STREAM: Large boulders and rocks near stream		Buellia stigmaea Bacidia inundata Caloplaca flavovirescens Candelariella vitellina Collema rysssoleum Dermatocarpon fluviatile Ionaspis epulotica	
LOWLAND FOREST: Oak-hickory-maple forest	Anzia colopodes Bacidia shweinitzii Bacidia suffusa Cladonia decorticata Coccocarpia cronia Parmelia austrosinenis Usnea strigosa		
WET CLIFFS AND LEDGES: Sandstone rock		Anaptychia palmulata Cladonia cylindrica Cladonia furcata Cladonia squamosa Nephroma helveticum Parmelia caperata	

TABLE I CONT.
 LICHENS CHARACTERISTIC OF THE VARIOUS
 HABITATS IN THE VALLEY OF LUSK CREEK

Habitats	Substrates		
	Trees	Sandstone	Soil
DRY BLUFFS: Associated with <u>Juni-</u> <u>perus</u> , <u>Vaccinium</u> , and <u>Quercus</u>	Catillaria	Cladonia boryi	Cladonia
	atropurpurea		verticillata
	Centraria	Cladonia	Diploschistes
	juniperina	caroliniana	seruposus
	Dermatocarpon	Cladonia	Lecidea macrocarpa
	tuckermanii	chlopophaea	
	Lecania cyrtella	Cladonia	Parmelia conspersa
		degenerans	
	Parmelia	Cladonia	Parmelia reticulata
	caroliniana	mateocyatha	
Parmelia hypotropa	Cladonia	Peltigera canina	
	rangiferina		
Physcia	Cladonia	Sarcogyne simplex	
tribacoides	uncialis		
UPLAND FOREST: Dry oak-hickory forest	Lecanora	Parmelia	
	caesiorubelia	madagascariacea	
	Lecanora subfusca	Parmelia tinctorum	
	Lecanora subfuscata		
	Ochrolechia		
	pallescens		
	Parmelia dilatata		
	Parmelia multipuncta		
Physcia orbicularis			

TABLE I CONT.
 LICHENS CHARACTERISTIC OF THE VARIOUS
 HABITATS IN THE VALLEY OF LUSK CREEK

	Substrates		
	Trees	Sandstone	Soil
OLD FIELDS: Associated with <u>Diospyros</u> , <u>Sassafras</u> , and <u>Ulmus</u>	Buellia parasaema Candelaria concolor Lecanora chalarona Lecanora cupressi Parmelia galbina Physicia aipolia Physicia stellaris		Cladonia subtenuis Cladonia cristatella

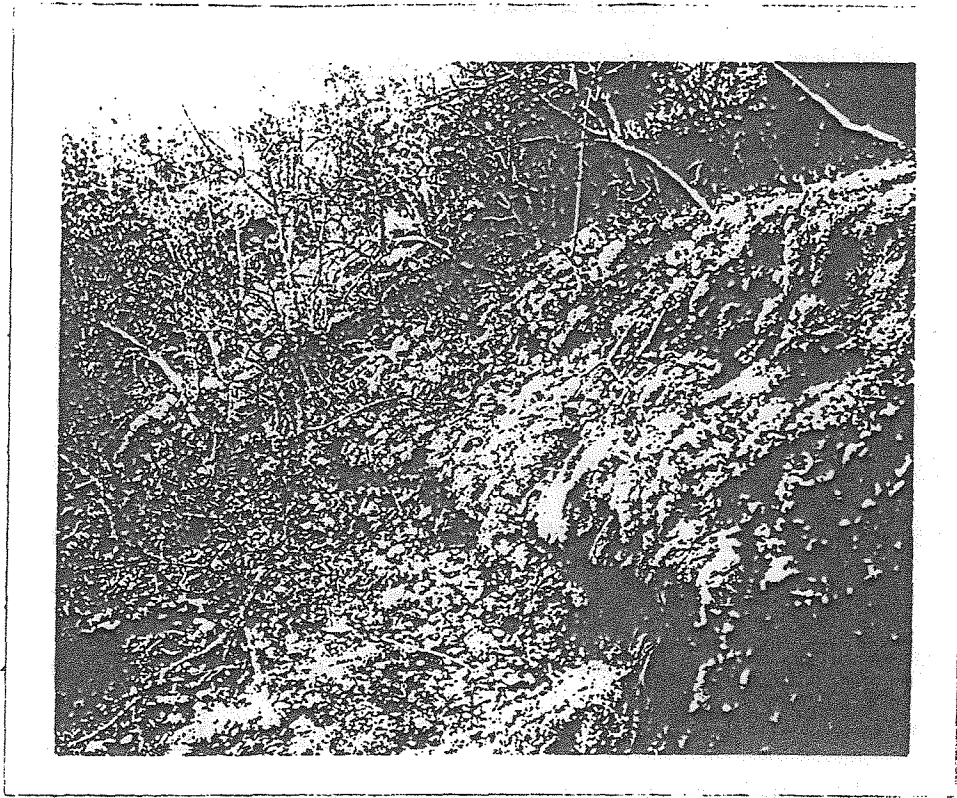


PLATE V. - Dry Bluff - Xeric
bluff top community.

system in terms of roots, stems, leaves, etc., find their home in this location. Intermingled among these islands of soil are shrubby plants of farkleberry, oaks (Quercus spp.), and juniper (Juniperus virginiana). This situation grades off into both a deeper soil and true upland forest composed largely of post oak (Quercus stellata), white oak (Quercus alba), black jack oak (Quercus marilandica), hickories (Carya spp.), and black oak (Quercus velutina).

The pre-vernal aspect is composed almost exclusively of woody plants. Shadbush, winged elm, and dogwood (Cornus florida) are the dominant species. The spring is the most productive period for the dry bluff top in terms of numbers and varieties of flowering plants. Yellow star grass (Hypoxis hirsuta), false garlic (Nothoscordum bivalve), star-of-Bethlehem (Ornithogalum umbellatum), and the rare quillwort (Isoetes butleri) can be found throughout the community.

Although fewer in number, the late vernal and summer plants are quite interesting. The most prominent flowering plants are goat's-rue (Tephrosia virginiana), samson's snakeroot (Psoralea psoralioides), pencil flower (Stylosanthes biflora), eastern prickly pear cactus (Opuntia rafinesquii), bluegrass (Poa sylvestris), Elliott's bentgrass (Agrostis elliotiana), false aloe (Agave virginica), and the characteristic fern of the xeric sandstone community, the slender lip fern (Cheilanthes lanosa). By September and August almost all flowering activity ceases. Occasionally widow's cross (Sedum pulchellum) and pencil flower may be found in flower at this relative late time.

Upland Woods - As the xeric bluff grades off into the upper reaches of the slope, the dry upland

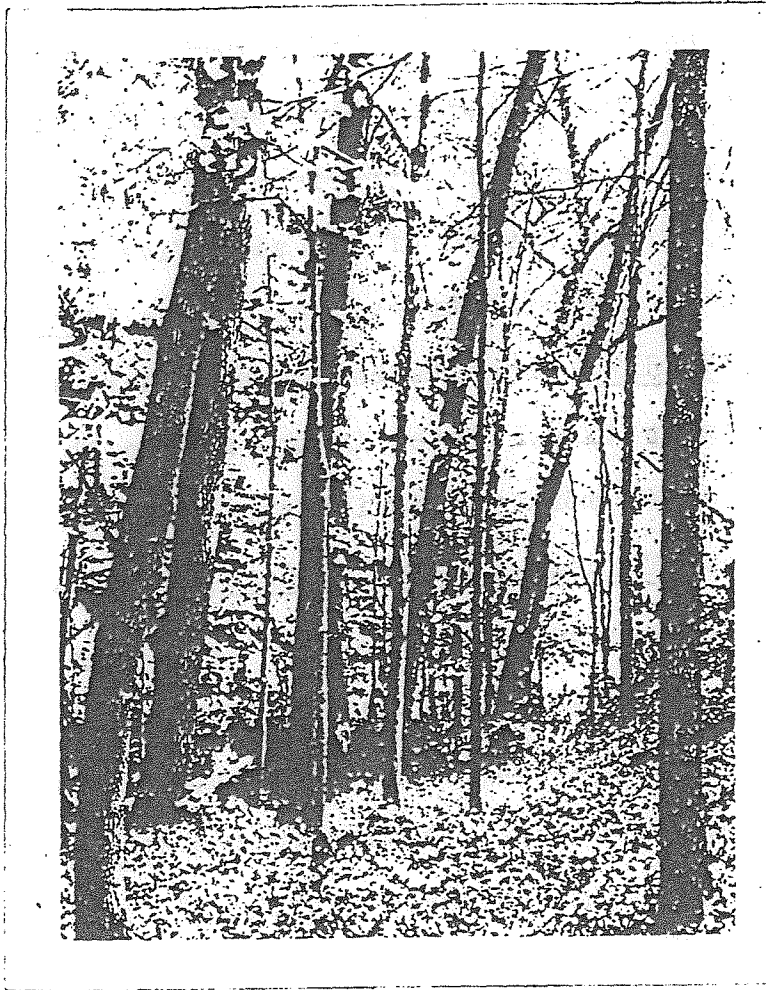


PLATE VI. - Upland forest - the somewhat open canopy and lack of undergrowth characterizes this community.

woods dominate the scene. This community, one of the most extensive in the area, is dominated by such trees as the white oak, black oak, post oak, juniper, and various species of hickory. The entire forested area would be considered a shrub timber since very few of the trees would be of market size. The trees are variously spaced and the canopy somewhat open (Plate VI).

A moderate grade is obvious with occasional abrupt rises due to the sandstone shelves found within the canyon area as described previously. The pre-vernal aspect is almost devoid of any significant flowering plants other than the trees; pussy toes (Antennaria plantaginifolia) constitutes the only herb to flower at this early time. Later in the season the vernal aspect becomes more vivid with the flowering of spiderwort (Tradescantia virginiana), lousewort (Pedicularis canadensis), and crossvine (Bignonia capreolata). With the rains and sunny days of summer, the period of greatest flowering occurs. Some of these plants found include: skullcap mints (Scutellaria spp.), wild bergamot mint (Monarda fistulosa), columbo (Swertia caroliniensis), white milkweed (Asclepias variegata), twayblade orchis (Liparis liliifolia), and both spiked lobelia and indian tobacco (Lobelia spicata and L. inflata), respectively. Some herbaceous plants which appear as summer ends are stone mint (Cunila origanoides), hairy hawkweed (Hieracium gronovii), the ever present self-heal-mint (Prunella vulgaris), and the smooth foxglove (Aureolaria flava). These latter mentioned plants will last in their flowering condition until late in the autumn.

Old Fields - Due to early farming in the

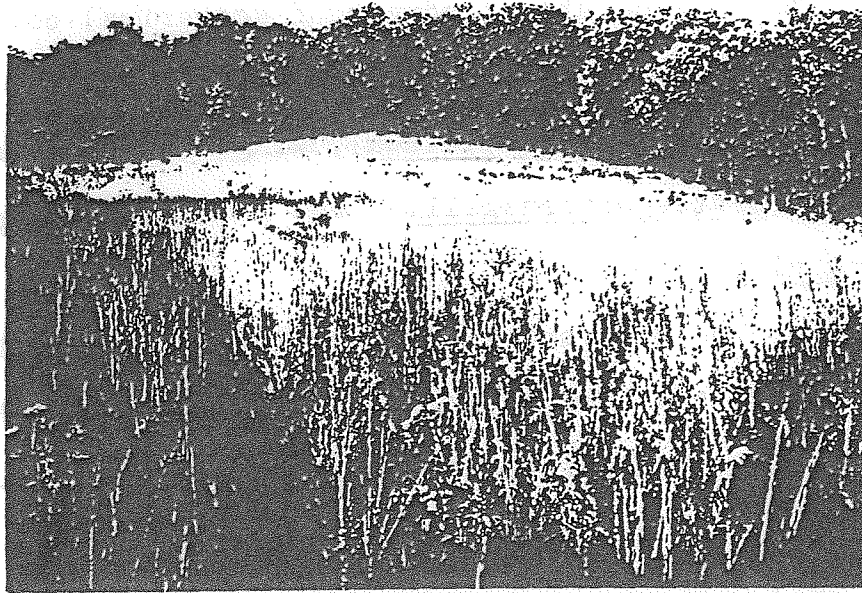


PLATE VII. - Old field community - many of the ridges in the area are covered with grasses and small trees.

area, a large number of the ridge tops are composed primarily of old field communities. These fields, for the most part, are well established and take on the appearance of a disturbed short-grass prairie (Plate VII). A number of characteristic prairie plants are found here. On the periphery of these fields, trails and old roads create a disturbed area, and a number of weedy plants are encountered. These fields range from twenty to forty years in age. The

ground cover is continuous except for an occasional shrubby tree. In older areas a savannah-like community is present with juniper as the dominant tree and little blue stem (Andropogon scoparius) comprising the ground cover. Other trees present are dogwood, sassafras (Sassafras albidum), winged elm, cockspur-thorn (Crataegus crusgalli), and persimmon (Diospyros virginiana).

The dull brown color of the grasses in this community takes on a tinge of green during mid-March. With the advent of April, bluets (Houstonia spp.) johnny-jump-ups (Viola rafinesquii), and short fruited whitlow-grass (Draba brachycarpa) are the heralders of spring. During the vernal aspect the prominent species include blue-eyed grass Sisyrinchium angustifolium), dandelion (Taraxacum officinale), and various crucifers. Summer and autumn are truly the most productive periods during the year. Species usually encountered include the red milkwort (Polygala sanguinea), flowering spurge (Euphorbia corollata), rushfoil (Crotonopsis elliptica), partridge spurge (Cassia spp.), black-eyed mary (Rudbeckia hirta), blazing stars (Liatris spp.), lady's tress orchids (Spiranthes spp.), and a variety of grasses. The flowering of goldenrods (Solidago

spp.) and asters (Aster spp.) signal an end to the flowering period for the old field community.

NEW AND UNUSUAL PLANTS FOR ILLINOIS

Lusk Creek and its associated environs is located in a floristically rich county. A great amount of work in botany has already been done in the area. Due to this previous work new state and county records were somewhat difficult to locate in the study area. However, 22 unrecorded plants are presented for the first time for Illinois. There are 101 county records and 31 species of plants which are considered to be rather unusual for southeastern Illinois. The new state records are discussed below. Some of the unusual plants for the area are included in table II with special reference to their apparent origin.

NEW RECORDS FOR ILLINOIS

Species-

The large and conspicuous hybrid fern Dryopteris neo-wherryi is known only for Illinois from a rocky hillside adjacent to Lusk Creek. This plant is the result of a cross between Dryopteris marginalis and Dryopteris goldiana. Its previously known geographical distribution included only Michigan and Indiana.

Likewise, Carex laxiflora, was previously thought to be limited to the northeastern United States. Fernald (1950) gives the range of this species as: n.w.N.S., and centr. Me. to Ont. and Wisc., s. to s. N.E., L.I., Ga., and Tenn. The plant was found on a rich east-facing slope in the study area.

One of the most unusual and interesting new records in that of another member of the Cyperaceae Carex tonsa is found in the study area in rich mesic woods in rocky soil. This plant was known from northeastern United States and one station along the Mississippi River south of St. Louis, Missouri and one in northern Indiana.

A plant of the old fields is Crataegus mackenzii. This rather attractive woody plant flowers in late April and early May and is of southwestern extraction.

Another hawthorn which is new for Illinois is Crataegus rugosa. This shrubby tree may be found in flower during the months of April and May. The plant occurs along the stream on a rather rocky slide.

An old field supports a member of the Compositae whose lavender flowers may be found in the fall of the year. This small fleabane, Erigeron tenuis, is a plant of southwestern affinity and is

found more prominently in Missouri, Louisiana, and Texas.

Varieties-

The following list outlines the 5 new varieties for Illinois, followed by a short description of their distributions:

Paspalum laeve Michx. var. pilosum Scribn.

Ranges from Texas north to New York, Pennsylvania, Tennessee, and Missouri.

Cinna arundinacea L. var. inexpansa Fern. &

Grisc. Ranges from Virginia to Louisiana, Missouri, and Oklahoma.

Carex crinita Lam. var. brevicrinis Fern.

Ranges from Florida to Texas, north near or along the Coastal Plain to Massachusetts, inland to Kentucky, Tennessee, and Missouri.

Prenanthes altissima L. var. cinnamomea Fern.

Ranges from Indiana, to Missouri, south to Louisiana and Oklahoma.

Lonicera flava Sims. var. flavescens (Small)

Gl. Ranges from South Carolina and Kentucky to Tennessee and Missouri.

Forma-

The following list outlines the 11 new forms
for Illinois:

Rumex crispus L. f. unicallosus Peterm.

Hypericum punctatum L. var. punctatum f.

subpetiolatum (Bickn.) Fern.

Sabatia angularis (L.) Pursh f. albiflora (Raf.)

House

Ipomoea pandurata (L.) Meyer f. leviuscula Fern.

Ipomoea lacunosa L. f. purpurata Fern.

Monarda fistulosa L. f. albescens Farw.

Gerardia fasciculata Ell. f. albiflora Palmer

Houstonia purpurea L. f. rubescens (Britt.)

Fern.

Aster pilosus Willd. var. pilosus f. pulchellus

Benke

Mitchella repens L. f. leucocarpa Bissell

Lactuca canadensis L. var. longifolia (Michx.)

Farw. f. angustipes Nieg.

Many unusual plants are found in southern Illinois. Southern Illinois is a blending area where the north meets the south and the west meets the east. The following chart outlines the origins of some of the more unusual plants from Lusk Creek and its associated environs.

TABLE II
SOME OF THE MORE UNUSUAL VASCULAR PLANTS FROM
LUSK CREEK CANYON

N O R T H E A S T	N O R T H W E S T
<i>Osmunda cinnamomea</i>	<i>Monotropa lanuginosa</i>
<i>Carex torta</i>	<i>Lycopodium flabelliforme</i>
<i>Carex oligocarpa</i>	
<i>Carex digitalis</i>	
<i>Carex laxiflora</i>	
<i>Carex tomsa</i>	
<i>Dennstaedtia punctilobula</i>	
<i>Dirca palustris</i>	
<i>Dodecatheon frenchii</i>	
<i>Lysimachia vulgaris</i>	
<i>Corallorhiza odontorhiza</i>	
<i>Cypripedium calceolus</i>	
<i>Goodyera pubescens</i>	
<i>Cardamine hirsuta</i>	
<i>Lespedeza simulata</i>	
<i>Ilex verticillata</i>	
<i>Helianthus lateriflorus</i>	
<i>Lactuca muralis</i>	
S O U T H E A S T	S O U T H W E S T
<i>Spiranthes gracilis</i>	<i>Isoetes butleri</i>
<i>Tipularia discolor</i>	<i>Panicum scoparium</i>
<i>Gentiana saponaria</i>	<i>Scripus rubricosus</i>
<i>Collinsonia canadensis</i>	
<i>Penstemon deamii</i>	
<i>Verbesina virginica</i>	

ANNOTATED LIST OF VASCULAR PLANTS

The following species have been identified and are represented by voucher specimens which are housed in the herbarium of Southern Illinois University. The order of listing follows that of Mohlenbrock and Voigt (1959). All plants are given variety rank and forma rank where it is deemed appropriate. Habitat, relative abundance within the given area, and geographical affinities are listed for each species. In most cases the collection dates following the individual species indicates approximate flowering or fruiting times. A single asterisk (*) before the species indicates a county record and a double asterisk (**) indicates a state record at the rank of either species, variety, or forma.

An examination of the list reveals the following: Pteridophyta is represented by 7 families, 21 genera, 36 species, and 8 varieties; Gymnospermae is represented by 2 families, and 2 genera and 2 species; subclass Monocotyledonae is represented by 12 families, 76 genera, 186 species, 25 varieties, and 4 forms; and subclass Dicotyledonae is represented by 88 families, 256 genera, 542 species, 64 varieties, and 22 forms. This totals 109 families, 355 genera, 766 species, 97

varieties, and 26 forms, constituting 24% of the vascular flora known from Illinois. A further analysis shows that the largest family is Compositae with 101 taxa, followed by Gramineae with 86 taxa, the Cyperaceae with 46 taxa, and the Leguminosae with 41 taxa. An interesting note is that 13 different taxa of orchids are found at Lusk Creek. This is the greatest number for any given area in Illinois.

AN ANNOTATED CHECKLIST OF VASCULAR PLANTS FROM
THE LUSK CREEK AREA, POPE COUNTY, ILLINOIS

Division PTERIDOPHYTA

Family Lycopodiaceae

Lycopodium lucidulum Michx. (Shining clubmoss)

Edge of bluff and top of sandstone slab;

very rare; northeast intraneous;

4-2-66-27.

Lycopodium flabelliforme (Fern.) Blanch. (Trail-

ing Ground-Pine) Moist north-facing bluff;

very rare; northeast intraneous; 3-19-66-5.

Lycopodium porophilum Lloyd & Underw. (Clubmoss)

Moist and shaded north-facing bluff;

rare; northeast intraneous; 3-19-66-123.

Family Selaginellaceae

Selaginella apoda (L.) Fern. (Spikemoss) Moist

sandstone, north-facing; very rare;

northeast intraneous; 3-20-66-121.

Family Isoetaceae

Isoetes butleri Engelm. (Quillwort) Wet islands

of soil atop bluffs; rare; central

intraneous; 4-16-66-59.

Family Equisetaceae

Equisetum arvense L. (Common Horsetail) Sandy soil near stream; very rare; northeast intraneous; 5-8-66-119.

Equisetum hyemale L. (Scouring-rush) Sandy soil on north end of small island in stream; rare; northeast intraneous; 7-25-66-937.

Family Ophioglossaceae

Ophioglossum vulgatum L. (Adder's-tongue) Woods; rare; northeast intraneous; 4-23-66-88.

Botrychium dissectum Spreng. var. *obliquum* (Muhl.) Clute (Grape Fern) Woods, occasional; northeast intraneous; 4-17-66-61.

Botrychium dissectum Spreng. var. *dissectum* (Grape Fern) Woods; very rare; northeast intraneous; 4-12-66-561.

Botrychium virginianum (L.) Swartz (Rattlesnake Fern) Woods; occasional; northeast intraneous; 5-21-66-132.

Family Osmundaceae

Osmunda cinnamomea L. (Cinnamon Fern) North-facing moist and shaded ledges; rare; northeast intraneous; 5-21-66-134.

Osmunda regalis L. var. *spectabilis* (Willd.)

A. Gray (Royal Fern) North-facing ledges;
 very rare; northeast intraneous;
 5-19-66-402.

Family Polypodiaceae

Onoclea sensibilis L. (Sensitive Fern)

Colonies along edge of stream;
 occasional; northeast intraneous;
 6-5-66-509.

Asplenium rhizophyllum L. (Walking Fern) Base
 of bluffs and large boulders; rare;
 northeast intraneous; 4-2-66-30.

Adiantum pedatum L. (Maidenhair-Fern) Colonies
 in oak-hickory woods; occasional;
 north intraneous; 4-29-66-90.

Asplenium pinnatifidum Nutt. (Pinnatifid
 Spleenwort) Dry bluffs, in cracks and
 crevices; rare; southeast intraneous;
 4-2-66-71.

Asplenium platyneuron (L.) Oakes. (Ebony
 Spleenwort) Upland woods and bluff tops;
 occasional; north intraneous; 4-23-66-70.

Asplenium trichomanes L. (Maidenhair-Spleenwort)
 Dry bluffs and ledges; rare; north
 intraneous; 4-23-66-13.

Thelypteris hexagonoptera (Michx.) Neeth.

(Broad Beech Fern) Oak-hickory woods;
common; northeast intraneous; 5-8-66-523.

Dryopteris marginalis (L.) A. Gray (Marginal
Fern) common in woods and along bluffs;
north intraneous; 4-2-66-29.

* *Dryopteris goldiana* (Hook.) A. Gray (Goldies
Fern) Rocky hillside adjacent to stream;
very rare; north intraneous; 7-15-67-501.

** *Dryopteris neo-wherryi* Wagner. Dry rocky slope
near stream; very rare; north extraneous;
7-15-67-542.

Polypodium polypodioides (L.) Watt. var.
michauxianum Weath. (Resurrection Fern)
Occasional on rocks and face of bluffs;
southeast intraneous; 4-29-66-35.

Polypodium virginianum L. (Rock Polypody) Dry
boulders; rare; northeast intraneous;
4-19-66-10.

Polystichum acrostichoides (Michx.) Schott.
(Christmas Fern) Woods; common; north
intraneous; 4-2-66-28.

Athyrium thelypteroides (Michx.) Desv.
(Silvery Spleenwort) Beech-maple woods;
rare; north intraneous; 7-4-67-1223.

Athyrium filix-femina (L.) Roth var. *rubellum*

- Gilb. (Lady Fern) Moist ledges;
occasional; north intraneous; 7-21-66-577.
- Athyrium filix-femina* (L.) Roth var. *asplenioides*
(Michx.) Farw. (Lady Fern) Moist ledges;
occasional; northeast intraneous;
7-21-66-562.
- Athyrium pycnocarpon* (Spreng.) Tidestr. (Glade
Fern) Moist ledges; rare; north
intraneous; 7-14-67-1365.
- Cheilanthes lanosa* (Michx.) D.C. Eaton (Woolly
Lip-Fern) Fluff tops; occasional;
northeast intraneous; 4-16-67-57.
- Pteridium aquilinum* (L.) Kuhn var. *latiusculum*
(Desv.) Underw. (Bracken) Dry bluff
tops; very rare; northern extraneous;
6-5-66-490.
- Cystopteris fragilis* (L.) Bernh. var. *protrusa*
Weatherby (Fragile Fern) Woods, common;
north intraneous; 4-2-66-33.
- Woodsia obtusa* (Spreng.) Torrey (Woods Fern)
Bluff tops and upland woods; occasional;
north intraneous; 9-29-66-1136.
- Dennstaedtia punctilobula* (Michx.) Moore
(Hay-scented Fern) Protected moist ledges;
very rare; northeast intraneous;
9-23-66-724.

Pellaea atropurpurea (L.) Link (Purple cliff-brake) Limestone outcropping near Little Lusk Creek; rare; northeast intraneous; 6-7-67-969.

Division SPERMATOPHYTA

Class GYMNOSPERMAE

Family Pinaceae

Pinus sylvestris L. (Scotch Pine) Pine plantation; Introduced; 11-6-66-1121.

Family Cupressaceae

Juniperus virginiana L. (Red Cedar) Bluff tops and upland woods; common; northeast intraneous; 9-24-66-748.

Class ANGIOSPERMAE

Subclass MONOCOTYLEDONEAE

Family Typhaceae

Typha latifolia L. (Cat-tail) Small ponds; occasional; northeast intraneous; 7-18-67-543.

Family Alismaceae

Alisma subcordatum Raf. (Water Plantain) Wet edge of old road; rare; northeast intraneous; 7-15-67-1362.

Family Gramineae

- Arundinaria gigantea* (Walt.) Chapm. (Giant Cane) Colonies along streams; occasional; southeast extraneous; 8-17-67-323.
- Eleusine indica* (L.) Gaertn. (Goose-grass) Old fields; occasional; introduced from Europe; 6-12-66-1004.
- Melica mutica* Walt. (Melic-grass) Woods; occasional; southeast extraneous; 5-21-66-470.
- Melica nitens* Nutt. (Melic-grass) Bluffs and upland woods; occasional; northeast intraneous; 5-19-66-147.
- Dactylis glomerata* L. (Orchard-grass) Edge of woods and pine plantation; occasional; naturalized from Europe; 5-27-66-238.
- * *Poa compressa* L. (Canada Bluegrass) Old fields; occasional; naturalized from Europe; 7-9-66-321.
- * *Poa sylvestris* Gray (Meadow-grass) moist bluff top; rare; northeast intraneous 5-21-66-465.
- Poa annua* L. (Annual Bluegrass) Old fields; occasional; naturalized from Europe; 9-23-66-1418.

Poa pratensis L. Old field; common, northeast
intraneous; 5-19-67-1191.

Bromus purgans L. (Brome-grass) Mesic woods;
occasional, northeast intraneous;
7-11-66-340.

* *Bromus latiglumis* (Shear) Hitchc. f. *incanus*
(Shear) Fern. Mesic slopes near stream;
rare, northeast intraneous; 9-23-67-1407.

* *Bromus inermis* Leyess. Top of boulders in woods;
rare; introduced from Europe;
8-2-67-1053.

Bromus tectorum L. Edge of woods and old field;
common, introduced from southern Europe;
5-9-66-1199.

Glyceria striata (Lam.) Hitchc. (Powl Meadow
grass) Moist area at base of bluff;
occasional; northeast intraneous;
7-11-66-350.

Diarrhena americana Beauv. Shaded boulders;
rare; northeast intraneous; 9-4-66-613.

Eragrostis spectabilis (Pursh) Steud. var.
sparsihirsuta Farw. (Tumble-grass).
Old fields near pine plantation; rare;
northeast intraneous; 8-20-66-1022.

Eragrostis pectinacea (Michx.) Nees (Love-grass)

Roadside; occasional; northeast
intraneous; 8-3-66-685.

Uniola latifolia Mich. (Wild Oats) Roadside and
old fields; common; northeast intraneous;
8-14-66-813.

Triodia flava (L.) Smyth var. *cuprea* (Jacq.)
Fosberg (Tall Red-Top) Roadside and in
edge of corn-fields; common; northeast
intraneous; 8-3-66-899.

Festuca octoflora Walt. var. *tenella* Willd.
(Fescue-grass) Bluff tops and roadsides;
occasional; northeast intraneous;
5-20-66-229.

Festuca rubra L. Boulders along ledges; rare;
northeast intraneous; 6-29-66-381.

Festuca elatior L. Roadsides and old fields;
common; naturalized from Europe;
7-15-67-1408.

Danthonia spicata (Lam.) Beauv. (Poverty-grass)
Bluff tops, xeric; common; northeast
intraneous; 5-17-66-1201.

* *Sphenopholis obtusata* (Michx.) Scribn. Moist
low ground near stream; occasional;
northeast intraneous; 5-19-66-217.

* *Sphenopholis nitida* (Spreng.) Scribn. Mesic

woods; occasional; northeast intraneous;
5-20-66-227.

Hordeum pusillum Nutt. (Little Barley) Roadside
and old fields; common; northeast
intraneous; 5-19-67-1192.

Hystrix patula Moench. (Bottle-Brushgrass)
Waste ground; occasional; northeast
intraneous; 6-24-66-286.

Elymus virginicus L. var. *virginicus* (Wild Rye)
Waste ground and old fields; common;
northeast intraneous; 6-26-66-363.

Elymus virginicus L. var. *glabriflorus* (Vasey)
Bush. Waste ground; rare; northeast
intraneous; 6-26-66-1202.

Setaria glauca (L.) Beauv. (Fox Tail) Roadside
and waste ground; common; northeast
intraneous; 8-7-66-900.

Setaria faberi Herrm. (Bristly Foxtail) Waste
ground and roadside; common; introduced
from Europe; 8-20-66-1021.

Echinochloa pungens (Poir.) Rydb. var. *pungens*.
Wet ground in ditches; occasional;
8-3-66-890.

Paspalum laeve Michx. Waste ground near stream;
occasional; northeast intraneous;
7-21-66-563.

** *Paspalum laeve* Michx. var. *pilosum* Scribn. Old cultivated field near pine plantation; occasional; northeast intraneous; 8-7-67-1413.

Phleum pratense L. (Common-Timothy) Woods, roadsides, and old fields; common; introduced from Europe; 6-29-66-379.

* *Panicum praecocius* Hitchc. & Chase (Panic-grass) Dry open field; common; northeast intraneous; 9-27-66-773.

Panicum polyanthes Schult. Moist slope in old field; common; southeast extraneous; 5-21-66-444.

* *Panicum philadelphicum* Bernh. var. *philadelphicum*. Old cultivated field; common; northeast intraneous; 5-20-66-230.

Panicum microcarpon Muhl. Moist open ground; occasional; northeast intraneous; 7-2-66-307.

Panicum linearifolium Scribn. var. *linearifolium*. Bluff top; occasional; northeast intraneous; 6-17-66-283.

Panicum flexile Gatt. Sandy soil in oak-hickory woods; common; northeast intraneous; 10-1-66-984.

Panicum dichotomum L. Waste ground; occasional;

northeast intraneous; 5-21-66-455.

Panicum dichotomiflorum Michx. Waste ground
in old field; occasional; northeast
intraneous; 9-18-66714.

Panicum bosicii Poir. Waste ground; common;
southeast extraneous; 5-21-66-457.

* *Panicum barbulatum* Michx. Dry wooded slope;
occasional; northeast intraneous;
5-20-66-228.

Panicum anceps Michx. Waste ground, roadside;
common; southeast extraneous 8-21-66-1039.

Panicum xalapense HBK. Bluff tops in colonies;
common; southeast extraneous 7-25-66-942.

Panicum tennesseense Ashe. Moist open ground;
occasional; northeast intraneous;
10-2-66-942.

Panicum miliaceum L. Old field; rare. north-
east intraneous; 8-27-66-595.

* *Panicum consanguineum* Kunth. Wooded slope; rare;
northeast intraneous; 8-23-66-1565.

* *Panicum malacophyllum* Nash. Wooded slope; rare;
northeast intraneous; 7-11-66-342.

Panicum scoparium Lam. Old field and waste
ground; rare; northeast intraneous
6-6-67-1300.

Digitaria sanguinalis (L.) Scop. (Finger-ress)

waste ground; common; introduced from
Europe; 9-24-66-759.

Digitaria ischaemum (Schreb.) Muhl. Waste
ground; occasional; northeast intraneous;
9-23-67-1427.

Cinna arundinacea L. var. *arundinacea* (Wood Reed-
grass) Tops of boulders near stream;
occasional; northeast intraneous;
9-27-66-795.

** *Cinna arundinacea* L. var. *inexpansa* Fern. &
Grisc. Tops of boulders and along stream;
very rare; northeast intraneous;
9-4-66-629.

Agrostis alba L. (Red Top) Waste ground; common;
introduced from Europe; 9-4-66-609.

Agrostis elliottiana Schult. (Bent-grass)
Bluff top, dry and exposed; occasional;
northeast intraneous; 9-12-67-1140.

Agrostis hyemalis (Walt.) BSP. (Ticklegrass)
Rocky upland woods; common; southeast
extraneous; 9-11-66-675.

Muhlenbergia sylvatica Torr. var. *sylvatica*
(Muhly-grass) Wooded slopes; rare; north-
east intraneous; 10-15-66-1081.

Muhlenbergia sobolifera (Muhl.) Trin. var.

sobolifera Woods; occasional; northeast intraneous; 9-23-66-719.

* *Muhlenbergia sobolifera* (Muhl.) Trin. var.

setigera (Schribn.) Deanm. Moist soil in mesic woods; rare; northeast intraneous; 9-27-66-764.

Muhlenbergia frondosa (Poir.) Fern. var. *frondosa*.

Ledges with thin soil; occasional; northeast intraneous; 9-18-67-296.

Muhlenbergia frondosa (Poir.) Fern. f. *commutata*

Scribn. Moist area at base of bluff; rare; northeast intraneous; 10-21-66-1047.

* *Muhlenbergia schreberi* J. F. Gmel. Moist soil

on boulder tops rare; northeast intraneous; 8-5-67-1415.

Muhlenbergia capillaris (Lam.) Trin. Wooded

slopes adjacent to stream; occasional; northeast intraneous; 8-25-67-1426.

Aristida oligantha Michx. (Triple-awned grass)

Old field and bluff tops; common; southeast extraneous; 9-17-66-699.

* *Aristida longespica* Poir. var. *longespica* (Needle-

grass) Waste ground; common; northeast intraneous; 9-17-66-1206.

Aristida longespica Poir. var. *geniculata* (Raf.)

Fern. Waste ground; rare; northeast
intraneous; 8-5-67-1412.

Brachyelytrum erectum (Schreb.) Beauv. Wooded
slopes; occasional; northeast intraneous;
5-21-66-461.

Leersia virginica Willd. (Cutgrass) Wet ground
along roads; occasional; northeast
intraneous; 9-27-66-777.

* *Leersia oryzoides* (L.) Sw. (Rice Cutgrass) Low
wet area in old field; rare; northeast
intraneous; 10-1-66-968.

Sorghastrum halepense (L.) Pers. (Johnson-grass)
Adjacent to stream on sandy soil; rare;
introduced from Europe; 8-20-66-1012.

Sorghastrum nutans (L.) Nash (Indian grass)
Open fields; occasional; northeast
intraneous; 11-6-66-976.

Andropogon eliottii Chapm. (Elliott Broomsedge)
Pine plantation; common; southeast
extraneous; 9-4-66-1203.

Andropogon gerardii Vitman (Big Bluestem) Grassy
savannah; rare; northeast intraneous;
10-15-66-1069.

Andropogon scoparius Michx. (Little Bluestem)
Old fields; common; northeast intraneous;
7-2-66-308.

Andropogon virginicus L. (Broom-sedge) Old fields;
common; southeast extraneous; 10-1-66-972.

Family Cyperaceae

Cyperus ovularis (Michx.) Torr. (Umbrella-Sedge)
Roadside ditch; occasional; northeast
intraneous; 7-21-66-567.

Cyperus inflexus Muhl. Thin soil on top of bluff;
rare; southeast extraneous; 10-21-66-1061.

Cyperus esculentus L. Waste ground near creek
bed; occasional; northeast intraneous;
7-15-67-1386.

Eleocharis engelmannii Steud. (Spike-rush)
Swampy ground; common; northwest
extraneous; 6-29-66-414.

Eleocharis obtusa (Wild.) Schultes Low wet
ground; occasional; northeast intraneous;
9-18-66-710.

Eleocharis tenuis (Willd.) Schultes var.
verrucosa Svenson. Swampy area in
pine plantation; occasional; northeast
intraneous; 4-23-66-557.

Bulbostylis capillaris (L.) C.B. Clarke. Bluff-
tops; rare; northeast intraneous;
8-27-66-588.

Fimbristylis autumnalis (L.) Roem. & Schultes.

Rocky creek bed; rare; northeast
intraneous; 9-24-66-743.

Scripus atrovirens Willd. (Bullrush) Wet waste
ground; common; northeast intraneous;
5-28-66-248.

Scripus rubricosus Fern. Wet depression along
creek bed; rare; southeast intraneous;
9-4-66-631.

Scripus lineatus Michx. Moist ground; occasional;
east extraneous; 5-9-67-1204.

Rhynchospora capitellata (Michx.) Vahl (Beak-
rush) Sandy soil along stream; rare;
southeast intraneous; 8-27-66-585.

** *Carex crinita* Lam. var. *brevicrinis* Fern. Base
of bluff in oak-hickory woods; very rare;
northeast intraneous; 5-19-66-204.

Carex careyana Torr. Beech-maple woods; rare;
northeast intraneous; 6-22-66-1204.

Carex albursina Sheldon Woods; occasional;
northeast intraneous; 5-21-66-462.

Carex blanda Dewey Wooded slopes; occasional;
northeast intraneous; 6-11-66-519.

Carex glaucodea Tuckerm. Rich rocky woods;
occasional; northeast intraneous;
5-28-66-1200.

Carex lurida Kunth Low wet ground; common;

- southeast extraneous; 6-27-66-779.
- Carex frankii* Wahl Wet soil in woods; common;
northeast intraneous; 10-2-66-995.
- Carex umbellata* Schk. Dry bluff tops; occasional;
northeast extraneous; 4-20-66-1130.
- Carex artitecta* Mack. Woods; common; northeast
intraneous; 4-17-66-63.
- * *Carex nigro-marginata* Schw. Bluff tops, dry;
rare; 5-26-66-1205.
- Carex jamesii* Schw. Rich woods, moist; common;
central intraneous; 5-5-66-399.
- Carex torta* Boott Riffles in stream; rare;
northeast intraneous; 4-17-66-66.
- Carex oligocarpa* Schk. Rich oak-hickory woods;
rare; northeast intraneous; 5-21-66-466.
- Carex cephalophora* Muhl. Dry woods; common;
northeast intraneous; 5-19-66-212.
- Carex rosea* Schk. Rich beech-maple woods; common;
northeast intraneous; 4-8-67-1177.
- Carex convoluta* Mack. Dry wooded slopes;
occasional; northeast intraneous
7-21-66-575.
- Carex retroflexa* Muhl. Sandstone bluffs; common;
northeast intraneous; 7-9-66-319.
- * *Carex muhlenbergii* Schk. var. *muhlenbergii*; Dry
bluffs; occasional; northeast intraneous;

6-22-67-786.

Carex muhlenbergii Schk. var. *enervis* Boott

Dry bluffs; occasional; northeast

intraneous; 5-27-66-241.

Carex virescens Muhl. Dry wooded slopes;

common; northeast intraneous; 5-28-66-249.

Carex hirsutella Mack. Woods; common; north-

east intraneous; 6-26-66-371.

Carex stipata Muhl. Wet area at base of bluff;

rare; northeast intraneous; 5-19-67-1189.

Carex vulpinoidea Michx. Wet ground; common;

northwest extraneous; 7-2-66-306.

Carex alopecoidea Tuckerm. Wet area near stream;

occasional; north intraneous;

7-3-67-891..

* *Carex abdita* Bickn. Wet ground; rare; north-

east intraneous; 4-20-66-1129.

* *Carex annectens* Bickn. Mesic rich woods; rare;

northeast extraneous; 7-11-66-327.

* *Carex brachyglossa* Mack Rich oak-hickory woods;

rare; northeast extraneous; 4-23-66-559.

Carex bushii Mack. Dry woods; common; north-

east intraneous; 9-23-66-740.

Carex digitalis Willd. Rich woods; occasional;

northeast intraneous; 5-21-66-467.

- Carex digitalis* Willd. Rich woods; occasional;
northeast intraneous; 5-21-66-467.
- * *Carex lacustris* Willd. Swampy ground; rare;
central intraneous; 8-10-66-1133.
- ** *Carex laxiflora* Lam. Rich, east-facing slope;
very rare; central intraneous;
6-20-66-366.
- * *Carex striatula* Michx. Wooded slope; rare;
southeast extraneous; 5-8-66-528.
- ** *Carex tonsa* (Fern.) Bickn. Rich mesic woods;
very rare; northeast extraneous;
5-21-66-458.
- Carex tribuloides* Wahl. Woods; occasional;
northeast extraneous; 8-3-66-894.
- Carex gracilescens* Steud. Edge of old field;
rare; northeast intraneous; 5-19-67-1195.

Family Araceae

- Arisaema triphyllum* (L.) Schott (Small Jack-
in-the-Pulpit) Oak-hickory woods;
occasional; northeast intraneous;
6-5-66-482.
- Arisaema dracontium* (L.) Schott (Green Dragon)
Oak-hickory woods; occasional; northeast
intraneous; 5-22-66-126.

Family Commelinaceae

* *Commelina erecta* L. (Day Flower) Old roadbed;
rare; northeast intraneous; 7-25-66-947.

Commelina communis L. Wet shoulder of road;
occasional; northeast intraneous;
8-3-66-892.

Tradescantia virginiana L. Woods and bluff tops;
occasional; northeast intraneous;
5-18-66-115.

Tradescantia subaspera Ker-Gawler Moist woods;
rare; central intraneous; 7-11-66-348.

Family Juncaceae

Juncus acuminatus Michx. (Rush) Waste ground;
common; northeast intraneous; 10-15-66-1067.

Juncus biflorus Ell. Old fields; common; north-
east intraneous; 7-2-66-310.

Juncus brachycarpus Engelm. Roadside ditches;
common; northeast intraneous; 7-15-67-1427.

Juncus tenuis Willd. Old fields, moist; common;
northeast intraneous; 7-11-66-326.

Juncus dudleyi Wieg. Old cultivated ground;
common; northeast intraneous; 5-19-66-207.

Juncus effusus L. var. *solutus* Fern. & Wieg.
Waste ground; common; northeast intraneous
6-26-66-361.

Juncus interior Wieg. Waste ground; occasional;
northwest extraneous; 5-20-66-223.

Luzula multiflora (Retz.) Le Jeune (WoodRush)
Dry woods; common; northeast extraneous;
3-19-66-4.

Family Liliaceae

Uvularia sessilifolia L. (Wild-oats) Wooded
slopes; rare; northeast intraneous;
5-12-67.

Uvularia grandiflora Sm. (Bellwort) Rich mesic
woods; occasional; northeast intraneous;
4-24-66-84.

Allium canadense L. (Wild garlic) Old fields and
bluff tops; common; northeast intraneous;
6-5-66-507.

* *Allium ampeloprasum* L. var. *atropurpureum* (Bioss.)
Regel Old garden site; rare; escaped
from cultivation; 6-26-67-1208.

Nothoscordum bivalve (L.) Britt. (False garlic)
Bluff top; occasional; south extraneous;
4-24-66-67.

Hemerocallis fulva L. (Orange day-lily) Road-
side; rare; horticultural species;
5-29-67-1144.

Erythronium albidum Nutt. (White dog's-tooth-

violet) Rich woods near stream; rare;
central intraneous; 3-27-67-1166.

Erythronium americanum Ker (Yellow Adder's-tongue)
Rich woods; occasional; northeast
intraneous; 3-21-66-16.

Ornithogalum umbellatum L. (Nap-at-noon) Bluff
top; occasional; introduced from Europe.

Yucca filamentosa L. (Yucca) Roadsides and old
homesites; occasional; escaped from
cultivation; 7-12-67-1452.

Asparagus officinalis L. (Garden Asparagus)
Edge of old rail fence row; rare;
introduced from Europe; 4-29-67-1143.

Smilacina racemosa (L.) Desf. (False Spikenard)
Wooded slopes; occasional; northeast
intraneous; 4-23-66-76.

Polygonatum biflorum (Walt.) Ell. (Solomon's
Seal) Rich oak-hickory woods; occasional;
northeast intraneous; 5-21-66-130.

Trillium gleasoni Fern. (White Trillium) Rich
woods along stream in sandy soil;
northeast extraneous; 5-8-66-113.

Trillium recurvatum Beck var. *recurvatum*
(Wakerobin) Woods; occasional; central
intraneous; 4-16-66-47.

* *Trillium recurvatum* Beck f. *shayi* Palmer & Steyerf.

(Shay's Trillium) Top of boulder in oak-hickory woods, shaded; very rare; central intraneous; 4-24-66-83.

* *Trillium sessile* L. (Toad Shade) Rich mesic woods along tributary flowing into Lusk Creek; very rare; central intraneous; 3-27-67-1168.

Smilax rotundifolia L. (Greenbrier) Wooded slopes; occasional; northeast intraneous; 8-14-66-817.

Smilax bona-nox L. (Catbrier) Woods; common; south extraneous; 8-14-66-804.

Smilax glauca Walt. var. *glauca* (Greenbrier) Woods; occasional; southeast extraneous; 8-14-66-803.

* *Smilax glauca* Walt. var. *leurophylla* Blake Woods; rare; southeast extraneous; 6-4-66-279.

Smilax tamnoides L. var. *hispida* (Muhl.) Fern. (China-root) Wooded slope; occasional; northeast intraneous; 8-14-66-821.

* *Lilium superbum* L. (Turk's-cap Lily) Sandy soil on bank of stream; very rare; central intraneous; 7-17-67-1083.

Family Dioscoreaceae

Dioscorea villosa L. (Wild Yam) Woods; common;

northeast intraneous; 7-11-66-341.

Dioscorea quaternata (Walt.) J.F. Gmel.

Woods and old fields; common; southeast
extraneous; 5-8-66-546.

Family Amaryllidaceae

Agave virginica L. (False Aloe) Bluff tops;
occasional; southeast extraneous;
7-25-66-949.

Hypoxis hirsuta (L.) Coville (Stargrass)
Thin soil on top of bluffs; occasional;
northeast extraneous; 5-8-66-110.

Narcissus pseudo-narcissus L. (Daffodil)
Escaped from cultivation near old home-
site; occasional; escaped from cultivation;
3-15-67-1161.

Narcissus poeticus L. (Poet's Narcissus)
Escape from cultivation and occurring
in old fence rows; occasional; escaped
from cultivation; 3-27-67-1167..

Family Iridaceae

Sisyrinchium angustifolium Mill. (Blue-eyed
Grass) Old fields and roadsides;
occasional; northeast extraneous;
5-20-66-19.

Belamcanda chinensis (L.) DC. Roadside near
old home site; rare; escaped from
cultivation; 7-15-67-1382.

* *Iris germanica* L. (Flags) Old home site; rare;
escaped from cultivation; 4-29-67-1144.

Family Orchidaceae

Aplectrum hyemale (Muhl.) Torr. (Putty-root)
Rich woods; occasional; northeast
intraneous; 5-19-66-201.

Corallorhiza odontorhiza (Willd.) Nutt. (Autumn
Coral-root) Rich woods and pine
plantations; rare; northeast intraneous;
9-27-66-790.

Corallorhiza wisteriana Conrad (Coral-root) Oak-
hickory woods; occasional; southeast
extraneous; 4-30-66-100.

Cypripedium calceolus L. var. *pubescens* (Willd.)
Correll (Lady's-slipper) Wooded slope,
oak-hickory; very rare; northeast
intraneous; 4-29-66-104.

Goodyera pubescens (Willd.) R. Br. (Rattlesnake
Orchid) Mossy ledges and wooded slopes
near stream; rare; central intraneous;
3-19-66-3.

Habenaria peramoena Gray (Purple Fringeless

Orchid) Wet sandy soil along stream;
rare; northeast extraneous; 7-24-66-924.

Liparis liliifolia (L.) Rich. (Tway blade)
Bluff top in colonies; rare; northeast
intraneous; 6-5-66-514.

Orchis spectabilis L. (Showy Orchid) Rocky
slope near stream; very rare; northeast
intraneous; 5-8-66-114.

Spiranthes gracilis (Bigel.) Beck (Southern Slender
Ladies'-tress) Old fields; rare; south
intraneous; 9-27-66-783.

Spiranthes tuberosa Raf. var. *tuberosa* (Little
Ladies'-tress) Rocky wooded slope;
rare; southeast extraneous; 7-27-66 -586.

Spiranthes cernua (L.) Rich. (Nodding Ladies'
tresses) Old fields; very rare; north-
east intraneous; 10-2-66-1065.

* *Spiranthes vernalis* Engelm. & Gray (Pearl-twist)
Old cultivated field; rare; south
extraneous; 9-17-67.

Tipularia discolor (Prush) Nutt. (Cranefly
Orchid) Wooded slopes, oak-hickory;
very rare; southeast extraneous;
7-21-66-566.

Subclass DICOTYLEDONAE

Family Saururaceae

Saururus cernuus L. (Water-Dragon) Riffles in
stream; occasional; northeast intraneous;
6-24-66-290.

Family Salicaceae

Salix sericea Marsh. (Silky Willow) Rocky
creek-bed; occasional; central intraneous;
4-29-67-1148.

* *Salix caroliniana* Michx. (Wards Willow) Sandy
soil near stream; rare; southeast
extraneous; 9-27-66-793.

Salix nigra L. (Black Willow) Wet soil adjacent
to stream; occasional; northeast intraneous;
9-10-66-854.

Salix petiolaris Sm. Rocky creek-bed near stream;
rare; northeast intraneous; 10-20-66-1092.

Populus deltoides Marsh. (Cottonwood) Sandy
soil near stream; rare; northeast
intraneous; 4-29-67-1141.

Family Juglandaceae

Juglans nigra L. (Black Walnut) Mesic woods;
rare; northeast intraneous; 9-24-66-745.

Juglans cinerea L. (Butternut) Moist mesic

woods; rare; northeast intraneous;

9-11-66-663.

Carya tomentosa Nutt. (Mockernut) Woods;

occasional; northeast intraneous;

9-24-66-746.

Carya texana Buckl. var. *texana* f. *glabra* (Palmer

& Steyerm.) Steyerm. Bluff tops and

upland woods; rare; south extraneous;

10-15-66-1077.

Carya ovalis (Wang.) Sarg. (Sweet Pignut) Bluff

tops and old fields; occasional; north-

east intraneous; 9-24-66-754.

Carya cordiformis (Wang.) Sarg. (Pignut) Found

throughout area; common; northeast

intraneous; 10-2-66-991.

Carya glabra (Mill.) Sweet Bluff tops and upland

woods; common; northeast intraneous;

9-17-66-689.

* *Carya laciniosa* (Michx.) Loud Moist mesic

woods; rare; northeast intraneous;

10-12-66-1536.

Family Betulaceae

Alnus serrulata (Ait.) Willd. (Alder) Rocky

stream bed near stream; common;

northeast intraneous; 9-11-66-659.

Carpinus caroliniana Walt. (American Hornbeam)

Midslope and lower in wooded areas;
occasional; northeast intraneous;
9-17-66-682.

Corylus americana Walt. var. *americana* f.

missouriensis (A.DC.) Fern. (American
Hazelnut) Edge of woods and old fields;
occasional; northeast intraneous;
9-11-66-655.

Ostrya virginiana (Mill.) K.Koch var. *lasia*

Fern. (Hop-Hornbeam) Upland woods;
occasional; northeast intraneous;
9-23-66-725.

Ostrya virginiana (Mill.) K. Koch var. *virginiana*

f. *glandulosa* (Spach.) Macbr. Mid and
lower slopes in oak-hickory woods; rare;
northeast intraneous; 5-16-66-1575.

Family Fagaceae

Quercus alba L. (White oak) Common throughout
area; northeast intraneous; 9-24-66-751.

Quercus imbricaria Michx. (Shingle Oak) Upland
forest and old fields; common; north-
east intraneous; 9-24-66-756.

Quercus marilandica Muench. (Black-Jack) Bluff
tops; common; northeast intraneous;

9-24-66-753.

Quercus velutina Lam. (Black oak) Midslope and bluff tops; common; northeast intraneous;

5-8-66-522.

Quercus rubra L. (Red Oak) Lower slope; occasional; northeast intraneous;

9-17-66-693.

Quercus falcata Michx. (Spanish Oak) Dry upland forest; rare; southeast extraneous;

6-29-66-435.

Quercus muhlenbergii Engelm. (Chestnut Oak)

Lower slope ranging to upper part of forested slope; rare; northeast

intraneous; 9-27-66-782.

Quercus coccinea Muench. (Scarlet Oak) Dry upland woods; common; 10-29-66-1093.

Quercus shumardii Buckl. var. *schneckii* (Britt.) Sarg. (Shumard's Red Oak) Base of bluffs and midslope in woods; occasional; southeast extraneous; 6-8-67-1551.

Quercus macrocarpa Michx. (Mossy-cup Oak) Moist ravines; rare; northeast intraneous; 10-2-66-992.

Quercus muhlenbergii Engelm. (Chinquapin Oak)

Upland woods; rare; southeast intraneous;

10-16-66-1078.

Fagus grandifolia Ehrh. (Beech) Moist ravines
and terraces along stream; common;
southeast intraneous; 9-17-66-683.

Family Ulmaceae

Ulmus rubra Muhl. (Slippery elm) Rich woods and
ravines; rare; northeast intraneous;
10-2-66-996.

Ulmus alata Michx. (Winged elm) Common in
dry woods and along bluff tops; south-
east extraneous; 4-17-66-1219.

Ulmus americana L. (Elm) Oak-hickory woods;
occasional; northeast intraneous;
9-12-67-1470.

Celtis occidentalis L. var. *pumila* Pursh.
(Hackberry) Low woodlands near stream;
rare; northeast intraneous; 9-4-66-620.

Family Moraceae

Morus alba L. (White Mulberry) Fence row near
old homesite; very rare; introduced from
eastern Asia; 9-11-66-666.

Morus rubra L. (Red Mulberry) Edge of woods and
pine plantation; very rare; northeast
intraneous; 8-21-66-1050.

Family Urticaceae

Parietaria pensylvanica Muhl. (Pellitory)

Wet ledges; occasional; northeast
intraneous; 5-27-66-246.

Boehmeria cylindrica (L.) Sw. (Bog-hemp) Moist

area near stream; occasional; northeast
intraneous; 9-4-66-621.

Pilea pumila (L.) Gray (Clearweed) Roadside and

edge of cultivated field; occasional;
northeast intraneous; 8-27-66-599.

* *Pilea fontana* (Lunell) Rydb. (Clearweed) Wooded

thicket near old cultivated field; very
rare; northeast intraneous; 9-26-66-865.

Family Aristolochiaceae

Aristolochia serpentaria L. (Virginia Snakeroot)

Rocky woods, uplands; very rare; south
extraneous; 5-21-66-1222.

Asarum reflexum Bickn. (Wild Ginger) Low mesic

woods in shade; occasional; northeast
intraneous; 4-16-66-44.

Family Polygonaceae

Rumex acetosella L. (Sheep-sorrel) Waste ground;

common; introduced from Eurasia;
7-2-66-293.

Rumex crispus L. f. *crispus* (Yellow Dock)

Waste ground near pond; common; introduced from Europe; 5-27-66-233.

** *Rumex crispus* L. f. *unicallosus* Peterm. Waste ground near swampy area; very rare; introduced from Eurasia; 5-8-66-534.

Rumex obtusifolia L. (Bitter Dock) Moist ground; common; introduced from Europe; 7-15-67-1391.

Rumex verticillatus L. (Swamp Dock) Wet soil near stream; common; northeast intraneous; 7-2-66-311.

Polygonum pensylvanicum L. var. *pensylvanicum* (Smartweed) Moist ground; common; northeast intraneous; 9-10-66-1462.

Polygonum pensylvanicum L. var. *laevigatum* Fern. Moist ground; common; northeast intraneous; 8-17-66-582.

Polygonum tenue Michx. Dry bluff top in thin soil; occasional; central intraneous; 9-12-67-1430.

Polygonum punctatum Ell. var. *punctatum* (Water Smartweed) Roadside ditches; common; northeast intraneous; 7-6-67-1465.

Polygonum punctatum Ell. var. *confertiflorum*

(Meisn.) Small Roadside ditches; rare;
northeast intraneous; 9-4-66-643.

Polygonum sagittatum L. (Arrow-leaved Tearthumb)

Along stream in marshy areas; rare;
northeast intraneous; 9-10-66-848.

Polygonum scandens L. (Climbing False Buckwheat)

Edge of woods and old fields; common;
northeast intraneous; 9-10-66-853.

Polygonum virginianum L. (Virginia Knotweed)

Moist soil at base of bluff; common;
northeast intraneous; 9-4-66-612.

Polygonum coccineum Muhl. Marshy area along

jeep-trail into Indian Kitchen;
occasional; northeast intraneous;
10-2-66-997.

Polygonum cristatum Engelm. & Gray Marshy

ground in edge of woods; rare; southeast
intraneous; 7-18-67-1553.

Family Chenopodiaceae

Chenopodium standleyanum Aellen Sandy soil

under overhang; occasional; northeast
intraneous; 8-12-67-1468.

Family Phytolacceae

Phytolacca americana L. (Poke) Edge of old

fields and cultivated ground; common;
northeast intraneous; 7-24-66-917.

Family Aizoaceae

Mollugo verticillata L. (Carpetweed) Sandy
soil on creek bank; very rare; from
tropical America; 9-7-67-1389.

Family Portulacaceae

Talinum parviflorum Nutt. (Fame Flower) Thin
soil on top of bluffs; very rare; central
intraneous; 6-29-66-409.

Claytonia virginica L. (Spring Beauty) Moist
woodlands; common; northeast intraneous;
4-2-66-17.

Family Caryophyllaceae

Cerastium arvense L. (Field Chickweed) Old
fields; common; northeast intraneous;
4-23-66-74.

Cerastium nutans Raf. (Mouse-ear Chickweed)
Waste ground; common; central intraneous;
5-8-66-526.

* *Holosteum umbellatum* L. (Jagged Chickweed)
Edge of woods and old field; occasional;
northeast extraneous; 4-16-66-3.

Silene stellata (L.) Ait. f. (Starry Campion)

Deep shade in mesic woods; rare; north-
east intraneous; 7-4-66-276.

Dianthus armeria L. (Deptford Pink) Woods and
roadsides; occasional; introduced from
Europe; 7-20-66-357.

Paronychia fastigiata (Raf.) Fern. var. *paleacea*
Fern. Dry upland woods; occasional;
northeast intraneous; 6-29-66-420.

Family Magnoliaceae

Liriodendron tulipifera L. (Tulip Poplar)
Mesic woods and terraces along stream;
occasional; northeast intraneous;
7-11-66-330.

Family Annonaceae

Asimina triloba (L.) Dunal. (Pawpaw) Mesic woods
in thickets; common northeast intraneous;
5-8-66-118.

Family Ranunculaceae

Anemone virginiana L. (Thimbleweed) Dry woods
and ravines; occasional; northeast
intraneous; 7-20-66-360.

Anemonella thalictroides (L.) Spach. (Rue-Anemone)
Boulders and dry woods; occasional;
northeast intraneous; 5-27-66-243.

Hepatica acutiloba DC. (Liverleaf) Tops of
boulders; occasional; northeast intraneous;
3-19-66-2.

Ranunculus hispidus Michx. (Buttercup) Dry
woodlands; occasional; northeast
intraneous; 5-8-66-521.

Ranunculus fascicularis Muhl. (Early Buttercup)
Thin soil on bluff tops; occasional;
northeast intraneous; 4-19-66-73.

Ranunculus micranthus Nutt. Dry woods and top
of boulders; occasional; northeast
intraneous; 4-17-66-68.

Ranunculus septentrionalis Poir. (Swamp Butter-
cup) Marshy areas in woodlands; rare;
northeast intraneous; 5-16-67.

Ranunculus abortivus L. (Kidney-leaved Butter-
cup) Dry and wet woodlands; occasional;
northeast intraneous; 4-16-66-40.

Ranunculus recurvatus Poir. Dry woodlands;
occasional; northeast intraneous;
5-20-66-225.

* *Delphinium ajacis* L. (Rocket-Larkspur) Fence
row near old home site; very rare;
escaped from cultivation; 6-26-67-1224.

Delphinium tricorne Michx. (Dwarf Larkspur)

- Upland woods; occasional; northeast
intraneous; 4-30-66-101.
- Hydrastis canadensis* L. (Golden-Seal) Moist
areas in woods; rare; northeast
intraneous; 5-8-66-540.
- Aquilegia canadensis* L. (Wild Columbine) Tops
of boulders and crevices in face of
bluffs; occasional; northeast intraneous;
4-29-66-102.
- Isopyrum biternatum* (Raf.) T. & G. (False Rue-
Anemone) Mesic woods; common; central
intraneous; 4-23-66-48.
- Thalictrum dioicum* L. (Early Meadow-rue) Mesic
woods; occasional; northeast intraneous;
5-28-66-247.
- Thalictrum hypoglaucum* Rydb. Near stream in
sandy soil; rare; northeast intraneous;
6-5-66-484.
- Actaea alba* (L.) Mill. (Doll's Eyes) Upland
woods and moist woods; occasional;
northeast intraneous; 5-27-66-242.
- Clematis virginiana* L. (Virgin Bower) Moist
soil near old field; rare; northeast
intraneous; 8-27-66-601.
- Cimicifuga rubifolia* Nutt. (Eugbane) Deep

mesic woods; very rare; southeast
extraneous; 6-19-67-1001.

Family Nymphaeaceae

Nuphar advena (Ait.) f. (Yellow Pond-Lily)

Edge of pools in stream; common; north-
east intraneous; 5-19-66-401.

Family Berberidaceae

Podophyllum peltatum L. (May-apple) Mesic to
to dry woods; occasional; northeast
intraneous; 4-30-66-96.

Caulophyllum thalictroides (L.) Michx. (Papoose-
root) Moist woods; occasional;
northeast intraneous; 6-17-67-1453.

Family Lauraceae

Lindera benzoin (L.) Blume (Spicebush) Wooded
slopes to stream; occasional; northeast
intraneous; 4-2-66-12.

Sassafras albidum (L.) Blume (White Sassafras)
Common on edge of fields and roads;
northeast intraneous; 4-24-66-92.

Family Menispermaceae

Calycocarpum lyonii (Fursh) Gray (Cupseed);
Adjacent to stream in deep forested area;
rare; south extraneous; 7-21-67-55.

Menispermum canadense L. (Moonseed) Edge of
road; rare; northeast intraneous;
8-24-67-1397.

Family Papaveraceae

Sanguinaria canadensis L. (Blood-root) Moist
woods; occasional; northeast intraneous;
4-2-66-11.

Stylophorum diphyllum (Michx.) Nutt. Mesic
woods; rare; central intraneous;
4-16-68-960.

Family Fumariaceae

Dicentra cucullaria (L.) Bernh. (Dutchman's-
Breeches) Mesic woodlands; occasional;
northeast intraneous; 4-2-66-18.

Dicentra canadensis (Goldie) Walp. Mesic woods;
rare; northeast intraneous; 4-16-68-332.

Corydalis flavula (Ref.) DC. (Yellow Fumewort)
Tops of boulders and woodland floor;
occasional; northeast intraneous;
4-2-66-20.

Family Cruciferae

Barbarea vulgaris R. Br. (Winter-Cress)
Cultivated fields; common; introduced
from Europe; 4-23-66-91.

Arabis canadensis L. (Sicklepod) Dry wooded slopes; occasional; northeast intraneous; 7-13-67-1368.

Arabis laevigata (Muhl.) Poir. (Rock Cress) Moist sandstone bluffs; occasional; northeast intraneous; 4-16-66-58.

Cardamine arenicola Britt. (Bitter Cress) Open ground, moist; common; northeast intraneous; 4-11-66-87.

Cardamine pennsylvanica Muhl. (Pennsylvanica Bitter-Cress) Moist ground; common; northeast intraneous; 5-18-66-112.

Capsella bursa-pastoris (L.) Medic. (Shepherd's Purse) Old fields and edge of cultivated ground; common; introduced from southern Europe; 4-24-66-124.

Dentaria laciniata Muhl. (Pepperroot) Woodland and along streams; occasional; northeast intraneous; 5-2-67-1454.

Lepidium virginicum L. (Poor Man's Pepperroot) Waste ground; common; northeast intraneous; 7-11-66-338.

Sibara virginica (L.) Rollins Waste ground; occasional; northeast intraneous; 3-19-67-1162.

Draba verna L. (Whitlow Grass) Waste ground;
common; introduced from Europe;
3-19-67-1159.

Draba brachycarpa Nutt. (Short-fruited whitlow
grass) Old fields; occasional; south
extraneous; 4-16-68-551.

Family Crassulaceae

Sedum telephioides Michx. (Northern Stonecrop)
Edge of bluff and large boulders; rare;
northeast extraneous; 8-14-66-799.

Sedum ternatum Michx. (Stonecrop) Common on
ground as well as moist rocks; northeast
intraneous; 4-29-66-95.

Sedum pulchellum Michx. (Widow's-cross)
Colonies on boulders; occasional;
southwest extraneous; 7-19-66-317.

Penthorum sedoides L. (Ditch Stonecrop) Moist
ground on edge of bluff; rare; north-
east intraneous; 9-4-66-628.

Family Saxifragaceae

Heuchera parviflora Bartl. var. *rugelii* (Shuttlw.)
Rosend., Butt., & Lak. (Alumroot) Face
of bluffs, shaded; occasional; south
extraneous; 6-17-66-282.

Heuchera hirsuticaulis (Wheelock) Rosend., Butt.,
& Lak. (Alumroot) Upland woods, dry;
occasional; central intraneous;
5-22-66-140.

Family Hydrangeaceae

Hydrangea arborescens L. var. *deamii* St. John
f. *deamii* (Wild Hydrangea) Woods and
face of bluffs and ledges; common; north-
east intraneous; 7-10-66-1461.

Family Hamamelidaceae

Liquidambar styraciflua L. (Sweet Gum) Edge of
stream; rare; southeast extraneous;
9-11-66-658.

Family Platanaceae

Platanus occidentalis L. var. *occidentalis* f.
attenuata Sarg. (Sycamore) Bottom of
canyon near stream; rare; northeast
intraneous; 9-11-66-657.

Family Rosaceae

Amelanchier arborea (Michx. f.) Fern. (Shadbush)
Upland woods and bluff tops; occasional;
northeast intraneous; 4-2-66-14.
Aruncus dioicus (Walt.) Fern. (Goat's Beard)

Shaded boulders; rare; central intraneous;
6-5-66-503.

* *Crataegus peoriensis* Sarg. (Red Haw) Old fields;
very rare; central extraneous;
9-10-66-1138.

** *Crataegus mackenzii* Sarg. Old fields; very
rare; central intraneous; 9-10-66-862.

** *Crataegus rugosa* Ashe. Old fields; very rare;
northeast extraneous; 4-30-67-1138.

Crataegus engelmannii Sarg. Old fields; very
rare; southeast extraneous; 9-10-66-826.

* *Crataegus phaenopyrum* (L.f.) Medic. Old fields;
very rare; central intraneous; 4-9-66-642.

Gillenia stipulata (Muhl.) Trel. (American
Ipecac) Roadside in disturbed ground;
occasional; northeast intraneous;
5-8-66-544.

Crataegus crus-galli L. (Cock-spur thorn) Old
field; occasional, northeast intraneous;
4-16-68-792.

Geum vernum (Raf.) Torr. & Gray (Avens) Dry
woodlands; occasional; northeast
intraneous; 6-21-66-1035.

Geum canadensis Jacq. Dry woodlands; occasional;
northeast intraneous; 6-21-66-292.

Agrimonia parviflora Ait. Waste ground;
occasional; northeast extraneous;
9-25-67-1444 .

Agrimonia rostellata Ait. Waste ground; occasional;
northeast intraneous; 9-25-67-1445.

Potentilla simplex Michx. (Old Field Cinque-
foil) Colonies in old fields;
occasional; northeast intraneous;
4-30-66-99.

Potentilla recta L. (Cinquefoil) Waste ground;
occasional; introduced from Europe;
6-5-66-496.

Prunus serotina Ehrh. (Black Cherry) Upland
woods and edge of old fields; occasional;
northeast intraneous; 4-29-67-1155.

Prunus lanata (Sudw.) Mack. & Bush Rocky creek
bed; rare; northeast intraneous;
7-21-67-1443.

* *Prunus americana* Marsh. (Wild Plum) Moist woodland;
occasional; northeast intraneous;
3-27-66-1170.

Prunus hortulana Bailey (Wild Goose Plum) Edge
of oak-hickory woods; occasional;
southwest extraneous; 3-27-66-1169.

Prunus persica (L.) Batsch. (Peach) Old fence

row; occasional; escaped from cultivation;
4-8-67-1175.

Rosa multiflora Thunb. (Wild-Rose) Edge of
fence near old home site; rare; escaped
from cultivation; 10-21-66-1064.

Rosa setigera Michx. var. *tomentosa* T. & G.
Upland woodland; occasional; northeast
intraneous; 6-26-66-362.

Rosa carolina L. Roadside; occasional; north-
east intraneous; 6-5-66-499.

Rubus flagellaris Willd. (Dewberries) Old fields;
occasional; northeast intraneous;
5-22-67-1083.

Rubus flagellaris Willd. var. *occidua*lis
Anthony f. roseus Steyerf. (Dewberries)
Edge of fields and woods; occasional;
northeast intraneous; 7-7-66-1135.

Rubus ostryifolius Rydb. Waste ground near
stream; common; central intraneous;
5-21-66-127.

* *Rubus enslenii* Tratt (Dewberries) Moist soil
near thicket; occasional; central
intraneous; 5-19-66-133.

Rubus occidentalis L. (Black Raspberry)
Moist ground along woods; common;

northeast intraneous; 10-21-66-1057.

Family Leguminosae

Amphicarpa bracteata (L.) Fern. var. *bracteata*
(Hog Peanut) Open woods in oak-hickory;
occasional; northeast intraneous;
8-3-66-1396.

Cassia fasciculata Michx. (Partridge Pea)
Waste ground, old fields and roadsides;
common; northeast intraneous; 9-4-66-645.

Cassia nictitans L. (Wild Sensitive Plant)
Edge of old field in fence row; rare;
northeast intraneous; 9-18-66-703.

Cassia marilandica L. (Wild Senna) Moist
ground in old field; occasional;
northeast intraneous; 8-14-66-820.

Cercis canadensis L. (Red Bud) Upland woods in
oak-hickory; rare; northeast intraneous;
4-23-66-93.

Clitoria mariana L. (Butterfly Pea) Dry old
fields and bluff tops rare; southeast
extraneous; 7-21-66-564.

Desmodium ciliare (Muhl.) DC. (Tick Trefoil)
Dry open woods; occasional; southeast
extraneous; 9-4-66-604.

Desmodium marilandicum (L.) DC. Dry upland woods;

occasional; northeast intraneous;

9-19-66-709.

Desmodium viridiflorum (L.) DC. Woodlands;

common; northeast intraneous; 9-24-67-

1422.

Desmodium glabellum (Michx.) DC. Open grassy

ground near pine plantations; common;

northeast intraneous; 7-13-67-1423.

Desmodium glutinosum (Muhl.) Wood. Moist soil

in woods; common; northeast intraneous;

7-25-66-936.

Desmodium nudiflorum (L.) DC. Dry woods in open

areas; common; northeast intraneous;

8-20-66-1023.

Desmodium paniculatum (L.) DC. Upland woods in

open ground; common northeast intraneous;

8-27-66-591.

Desmodium rigidum (Ell.) DC. Loamy soil near

edge of woods; rare; northeast intraneous;

9-24-66-744.

* *Desmodium rotundifolium* DC. Waste ground in old

fields; common; northeast intraneous;

9-4-66-607.

Desmodium illinoensis Gray Dry open waste ground

occasional; northwest intraneous;

5-19-67-1187.

Galactia volubilis (L.) Britt. (Milk Pea) Dry
upland forest; common; south extraneous;

8-14-66-822.

Gleditsia triacanthos L. (Honey Locust) Road-
sides and near old homesites; occasional;
northeast intraneous; 10-1-66-965.

Lespedeza stuevei Nutt. (Bush Clover) Roadsides;
occasional; southeast extraneous;

9-7-66-904.

Lespedeza hirta (L.) Hornem. Woodlands near
stream; occasional; northeast intraneous;

10-21-66-1100.

Lespedeza cuneata (Dumont) G. Don Oak-hickory
woods; occasional; northeast intraneous;

9-14-66-823.

Lespedeza stipulacea Maxim. Rocky uplands;
occasional; introduced from eastern
Asia; 8-3-66-866.

Lespedeza simulata Mack & Bush Upland woods;
occasional; central intraneous;

8-14-66-225.

Lespedeza procumbens Michx. Woodlands;
occasional; northeast intraneous;

9-23-66-733.

Lespedeza repens (L.) Bart. Roadsides and waste ground; common; northeast intraneous; 9-2-66-737.

Melilotus albus Desr. (White Sweet-clover) Waste ground and along roads; occasional; introduced from Eurasia; 5-8-66-533.

Melilotus officinalis (L.) Lam. (Yellow Sweet-clover) Waste ground; occasional; introduced from Europe; 7-3-67-11455.

Psoralea psoralioides (Walt.) Cory var. *eglandulosa* (Ell.) F.L. Freeman (Sampson's Snakeroot) Thin soil on top of bluffs; rare; south extraneous; 6-5-66-487.

* *Robinia hispida* L. (Bristly Locust) Near old home site; very rare; southeast extraneous; 4-29-67-1145.

Stylosanthes biflora (L.) ESP. (Pencil flower) Bluff tops and old fields; occasional; south extraneous; 5-8-66-545.

Strophostyles umbellata (Muhl.) Britt. (Wild Bean) Along roads and in old fields; occasional; southeast extraneous; 8-7-66-909.

Strophostyles leiosperma (T. & G.) Piper. Waste ground; occasional; central intraneous;

8-16-67-1467.

Strophostyles helvola (L.) Britt. Roadsides
and old fields; occasional; northeast
intraneous; 8-12-67-1360.

Tephrosia virginiana (L.) Pers. (Goat's Rue)
Dry bluff tops; occasional; northeast
intraneous; 7-11-66-343.

Trifolium pratense L. (Red Clover) Fields and
waste ground; common; introduced from
Europe; 6-5-66-494.

Trifolium dubium Sibth. (Little Hop-Clover)
Waste ground near road; common;
introduced from Europe; 6-29-66-377.

Trifolium repens L. (White Clover) Waste ground
and in old fields; occasional; introduced
from Eurasia; 5-22-66-136.

Trifolium hybridum L. (Alsike Clover) Waste
ground; common; introduced from Eurasia;
5-9-67-1190.

Family Geraniaceae

Geranium carolinianum L. (Cranesbill) Waste
ground along roads; common; northeast
intraneous; 5-21-66-138.

Geranium maculatum L. (Wild Cranesbill) Mesic
and dry woodlands; occasional; northeast

intraneous; 4-24-66-78.

Family Oxalidaceae

Oxalis violacea L. (Violet Wood Sorrel) Dry
woods; occasional; northeast intraneous;
5-21-66-77.

Oxalis stricta L. (Wood Sorrel) Oak-hickory woods;
occasional; northeast intraneous;
5-21-66-134.

Oxalis dillenii Jacq. Rich woods; occasional;
northeast intraneous; 5-22-66-135.

Family Linaceae

Linum virginianum L. (Flax) Roadside; rare;
northeast intraneous; 6-29-66-413.

Linum medium (Planch.) Britt. var. *texanum*
(Planch.) Fern. Waste ground near pine
plantations; rare; northeast intraneous;
6-29-66-388.

Family Balsaminaceae

Impatiens biflora Walt. (Spotted Touch-me-not)
Along stream in colonies; common;
northeast intraneous; 8-3-66-893.

Impatiens pallida Nutt. (Pale Touch-me-not)
Along stream intermixed with *Impatiens*
biflora; occasional; northeast intraneous

5-8-66-550.

Family Polygalaceae

* *Polygala sanguinea* L. f. *sanguinea* (Milkwort)

Old fields; occasional; northeast

intraneous; 7-2-66-294.

* *Polygala verticillata* L. (Milkwort) Old fields

with savannah type habitat; rare; north-

east intraneous; 7-9-66-324.

Family Euphorbiaceae

Acalypha gracilens Gray var. *gracilens* (Three-

seeded Mercury) Waste ground; north-

east intraneous; 9-10-66-849.

Acalypha gracilens Gray var. *monococca* Engelm.

Dry woods and old fields; occasional;

northeast intraneous; 9-4-66-608.

Acalypha rhomboidea Raf. Woodlands; occasional;

northeast intraneous; 7-14-67-1371.

Croton capitatus Michx. (Hogwort) Top of sand-

stone bluff; occasional; south extraneous;

8-6-66-906.

Croton monanthogynus Michx. Top of bluffs;

occasional; central intraneous; 7-5-67-1454.

Croton glandulosus L. (Sand Croton) Waste

ground; occasional; central intraneous;

7-2-67-1452.

Euphorbia corollata L. var. *corollata* (Flowering Spurge) Dry woods and old fields; occasional; northeast intraneous; 8-3-66-886.

* *Euphorbia corollata* L. var. *mollis* Millsp. Old fields; common; northeast intraneous; 6-29-66-387.

* *Euphorbia supina* L. Waste ground; occasional; northeast intraneous; 7-16-67-1368.

Euphorbia maculata L. (Nodding Spurge) Waste ground and upland woods; common; northeast intraneous; 9-26-66-870.

Crotonopsis elliptica Willd. (Rush Foil) Dry woods and old fields; occasional; south extraneous; 8-14-66-824.

Family Celastraceae

Euonymus obovatus Nutt. (Running Strawberry-bush) Sandy soil near stream; rare; northeast intraneous; 4-30-66-103.

Euonymus atropurpureus Jacq. (Wahoo) Adjacent to stream; rare; northeast intraneous; 6-4-66-265.

Celastrus scandens L. (Climbing Bitter-Sweet) Edge of old fields and woods; rare;

northeast intraneous; 8-24-67-1375.

Family Aquifoliaceae

Ilex decidua Walt. (Possum Haw) Rocky creek-bed; occasional; south extraneous; 9-11-66-661.

Ilex verticillata (L.) Gray (Black Alder) North-facing ledges in shade; rare; northeast extraneous; 10-21-66-1101.

Family Anacardiaceae

Rhus copallina L. var. *latifolia* Engelm. (Dwarf Sumac) Waste ground and edge of woods; occasional; northeast intraneous; 9-10-66-835.

Rhus glabra L. (Smooth Sumac) Waste ground in colonies; occasional; northeast intraneous; 9-10-66-827.

Rhus radicans L. var. *vulgaris* (Michx.) DC. f. *negundo* (Greene) Fern. (Poison Ivy) Woodlands and disturbed areas; common; northeast intraneous; 5-19-66-200.

Family Stephyleaceae

Stephylea trifolia L. (Eladdernut) Ravines and mesic woods; occasional; northeast intraneous; 4-21-66-150.

Family Aceraceae

Acer saccharum Marsh. (Sugar Maple) Beech-maple woods, rich; occasional; northeast intraneous; 9-10-66-829.

Acer negundo L. (Box-Elder) Thickets along stream in disturbed areas; occasional; northeast intraneous; 10-16-66-1066.

Acer rubrum L. (Red Maple) Along stream and base of slopes; occasional; northeast intraneous; 8-12-67-1376.

Family Hippocastanaceae

Aesculus glabra Willd. (Ohio Buckeye) Oak-hickory woods; rare; southeast intraneous; 4-29-66-106.

Family Rhamnaceae

Ceanothus americanus L. var. *intermedius* (Pursh) K. Koch (New Jersey Tea) Old fields and pine plantations; rare; northeast intraneous; 6-29-66-390.

Rhamnus caroliniana Walt. (Carolina Buckthorn) Woods; rare; southeast intraneous; 9-23-67-1429.

Family Vitaceae

Vitis vulpina L. (Winter Grape) Fence rows;
occasional; northeast intraneous;
7-25-66-952.

Vitis cinerea Engelm. (Graybark Grape) Old
fields and fence rows; occasional;
central intraneous; 5-11-67-1301.

Vitis aestivalis Michx. (Summer Grape) Rocky
creek bed near stream; occasional;
northeast intraneous; 10-15-66-1076.

Parthenocissus quinquefolia (L.) Planch.
(Virginia Creeper) Uplands woods; common;
northeast intraneous; 6-17-67-302.

Family Tiliaceae

Tilia americana L. (Basswood) Sandy soil along
stream; very rare; northeast intraneous;
8-23-67-1439.

Family Hypericaceae

Hypericum gentianoides (L.) BSP. (Pineweed)
Dry sandy woods; occasional; northeast
intraneous; 6-29-66-375.

Hypericum mutilum L. (St. John's-wort) Moist
soil in woods; occasional; northeast
intraneous; 10-15-66-1211.

- Hypericum sphaerocarpon* Michx. var. *sphaerocarpon*
 (Round-fruited St. John's-Wort) Old
 fields and dry sandy soil; occasional;
 central intraneous; 8-7-66-905.
- Hypericum sphaerocarpon* Michx. var. *turgidum*
 (Small) Svenson (Round-fruited St.
 John's-wort) Along stream in open areas
 and top of bluffs; occasional; central
 intraneous; 7-2-66-298.
- Hypericum drummondii* (Grev. & Hook.) T. & G.
 Dry woods; occasional; northeast intran-
 eous; 9-13-67-1380.
- Hypericum punctatum* L. var. *punctatum* f.
punctatum Old fields; common; intro-
 duced from Europe; 7-2-66-297.
- ** *Hypericum punctatum* L. var. *punctatum* f.
subpetiolatum (Bickn.) Fern. Old
 cultivated fields; introduced from
 Europe; 7-2-66-300.
- Hypericum prolificum* L. Sandy soil along stream;
 occasional; northeast intraneous;
 8-7-66-905.
- Ascyrum multicaule* Michx. (St. Andrew's Cross)
 Oak-hickory woods; occasional; southeast
 extraneous; 8-27-66-602.

Family Cistaceae

* *Lechea minor* L. (Pinweed) Sandstone bluff
tops; very rare; central intraneous;
8-7-66-927.

Lechea tenuifolia Michx. (Narrow-leaved Pinweed)
Dry open woods; occasional; central
intraneous; 10-21-66-1049.

Family Violaceae

Viola missouriensis Green Dry woods; occasional;
central intraneous; 4-6-66-25.

Viola striata Ait. (Cream Violet) Sandy soil
near stream in shade; rare; northeast
intraneous; 4-16-66-43.

Viola sororia Willd. (Woolly Blue Woods Violet)
Woodlands; common; northeast intraneous;
4-16-66-50.

Viola rafinesquii Green (Johnny Jump Ups)
Disturbed areas along road and in edge
of old cultivated fields; occasional;
northeast intraneous; 4-16-66-53.

Viola eriocarpa Schw. (Common Yellow Violet)
Low wet woods; occasional; northeast
intraneous; 4-16-66-54.

Viola papilionacea Pursh (Butterfly Violet)
Dry woods; common; northeast intraneous;

4-9-66-64.

Viola falcata Greene (Lobed Violet) Dry woods;
common; south extraneous; 4-19-66-141.

Hybanthus concolor (Forst.) Spreng. (Green
Violet) Oak-hickory woods; occasional;
northeast intraneous; 4-23-66-120.

Family Thymeleaceae

Dirca palustris L. (Leatherwood) Rocky hillside
near stream; very rare; northeast
intraneous; 4-2-66-26.

Family Lythraceae

* *Lythrum alatum* Pursh. (Loosestrife) Moist
soil in woods; common; northeast
intraneous; 9-4-66-647.

* *Lythrum salicaria* L. (Spiked Loosestrife) Moist
ground; rare; northeast intraneous;
9-24-66-761.

Cuphea petiolata (L.) Koehne (Waxweed) Old
fields and edge of roads where moist;
occasional; northeast intraneous;
8-4-67-1446.

Family Passifloraceae

Passiflora incarnata L. (Apricot Vine) Dis-
turbed area near woods; rare; south

intraneous; 8-22-67-252.

Passiflora lutea L. (Passion Flower) Edge of
woods; rare; south intraneous; 9-23-66-739.

Family Cactaceae

Opuntia rafinesquii Engelm. Macbr. (Prickly
Pear) Bluff tops, very dry; occasional;
northeast intraneous; 6-11-66-518.

Family Onagraceae

Circaea latifolia Hill (Enchanter's Nightshade)
Wooded slopes; occasional; northeast
intraneous; 5-8-66-539.

* *Gaura biennis* L. var. *pitcheri* Pickering (Pink
Butterfly Weed) Sandy soil near stream;
rare; northeast intraneous; 8-20-66-1017.

Ludwigia alternifolia L. (Seedbox) Ditches
along road; occasional; northeast
intraneous; 7-21-66-581.

Oenothera fruticosa L. North-facing ledges;
rare; northeast intraneous; 8-5-66-552.

Oenothera fruticosa L. var. *linearis* (Michx.)
S. Wats. (Evening Primrose) Shaded
north-facing ledges, moist; very rare;
northeast intraneous; 6-29-66-374.

Oenothera pilosella Raf. (Common Sundrops)
Low wet woods; rare; north intraneous;

8-11-67-529.

Oenothera linifolia Nutt. (Sundrops) Sandstone bluff; occasional; south extraneous; 5-19-66-221.

* *Oenothera strigosa* (Rydb.) Mack. & Bush (Evening Primrose) Old fields; common; northwest extraneous; 5-21-66-137.

Family Cornaceae

Cornus florida L. (Flowering Dogwood) Wooded slopes; occasional; northeast intraneous; 4-24-66-79.

Cornus obliqua Raf. (Dogwood) Moist woodland; rare; northeast intraneous; 7-11-66-335.

* *Cornus racemosa* Lam. (Gray Dogwood) Old field; occasional; northeast intraneous; 9-10-66-825.

Nyssa sylvatica Marsh. (Sourgum) Mesic woods; occasional; northeast intraneous; 7-15-67-737.

Family Araliaceae

Panax quinquefolia L. (Ginseng) Low wet woods in colonies; very rare; northeast intraneous; 4-24-66-80.

Aralia spinosa L. (Hercules Club) Moist woods

in shade; very rare; southeast extraneous;
6-5-66-762.

Aralia racemosa L. (Spikenard) Shaded boulders
on north-facing bluff; occasional; north-
east intraneous; 8-14-66-814.

Family Umbelliferae

Cicuta maculata L. (Water Hemlock) Moist ground
near stream; occasional; northeast
intraneous; 7-15-67-143.

Zizia aurea (L.) Koch (Golden Alexander) Wooded
slopes; occasional; northeast intraneous;
6-11-66-515.

Osmorhiza claytoni (Michx.) Clarke (Sweet Jarvil)
Moist woodland near stream; northeast
intraneous; 4-30-66-144.

Osmorhiza longistylis (Torr.) DC. (Anise-root)
Weedy area near stream; rare; north-
east intraneous; 4-30-66-42.

Polytaenia nuttallii DC. (Prairie Parsley)
Old field near stream; rare; central
intraneous; 6-26-67-1206.

Thaspium trifoliatum (L.) Gray var. *trifoliatum*
Moist woods; occasional; northeast
intraneous; 6-5-66-486.

Thaspium trifoliatum (L.) Gray var. *flavum*

Blake (Meadow-Parsnip) Moist woodlands;
occasional; northeast intraneous;
5-19-66-209.

Eryngium yuccifolium Michx. (Rattlesnake Master)
North-facing ledge, moist and partly
open; rare; south extraneous; 6-4-66-256.

Cryptotaenia canadensis (L.) DC. (Wild Chervil)
Moist woods and roadside ditches; common;
northeast intraneous; 6-26-66-370.

Sanicula canadensis L. var. *canadensis* (Black
Snakeroot) Mesic woods in shade;
occasional; northeast intraneous;
6-26-66-367.

Erigenia bulbosa (Michx.) Nutt. (Harbinger-of-
spring) Woodlands; rare; northeast
intraneous; 4-12-66-560.

Daucus carota L. (Wild Carrot) Old fields and
waste ground; common; introduced from
Eurasia; 5-19-66-219.

Family Ericaceae

Vaccinium vacillans Torr. (Hill Blueberry)
Bluff tops and rocky uplands; occasional;
northeast intraneous; 7-14-67-1369.

Vaccinium arboreum Marsh. (Farkleberry) Bluff
tops; common; south extraneous;

Family *Pyrolaceae* 5-16-66-1209.

Monotropa lanuginosa Michx. (Pine Sap) Uplands
in oak-hickory woods; very rare; north-
east intraneous; 6-29-66-436.

Monotropa uniflora L. (Indian Pipe) Uplands
in oak-hickory woods; rare; northeast
intraneous; 9-11-66-857.

Family *Primulaceae*

Dodecatheon frenchii (Vasey) Rydb. (French's
Shooting-star) Base of bluff under over-
hang; occasional; central intraneous;
5-8-66-153.

Dodecatheon meadia L. (Shooting-star) Woodlands
and bluff tops where partly shaded;
occasional; northeast intraneous;
4-29-66-75.

* *Lysimachia radicans* Hook. (False Loosestrife)
Woods, moist; rare; northeast intraneous;
6-24-66-288.

Lysimachia lanceolata Walt. (Narrow-Leaved
Loosestrife) Moist soil on north-facing
ledges; occasional; northeast intraneous;
5-21-66-443.

Lysimachia vulgaris L. (Golden Loosestrife)
Sandy rocky soil along stream; very rare;

north extraneous; 6-3-66-280.

Samolus parviflorus Raf. (Brookweed) Moist
shaded soil; rare; northeast intraneous;
7-22-67-1379.

Family Ebenaceae

Diospyros virginiana L. (Persimmon) Old fields
and roadside; common; northeast intraneous;
9-17-66-690.

Family Oleaceae

Fraxinus americana L. var. *americana* (White Ash)
Woodlands; occasional; northeast
intraneous; 9-24-66-747.

Fraxinus americana L. var. *biltmoreana* (Beadle)
J. Wright Lower slope in oak-hickory
woods; rare; northeast intraneous;
9-11-66-665.

Fraxinus pensylvanica Marsh. var. *pensylvanica*
(Red Ash) Along stream in low woods;
rare; northeast intraneous;

* *Ligustrum vulgare* L. (Privet) Thicket along
stream; occasional; northeast intraneous;
4-29-67-1449.

Family Loganiaceae

Spigelia marilandica L. (Indian-Pink) Bluff

tops where moist and oak-hickory woods;
occasional; central extraneous;
6-6-66-392.

Family Gentianaceae

Gentiana saponaria L. (Soapwort Gentian) Cool
moist north-facing ledges; very rare;
central intraneous; 10-15-66-1091.

* *Gentiana andrewsii* Griseb. (Closed Gentian)
Associated with *Sphagnum* on north-facing
ledges; rare; central intraneous;
10-29-66-1095.

Obolaria virginica L. (Pennywort) Oak-hickory
woods; rare; central extraneous;
4-17-66-65.

Sabatia angularis (L.) Pursh f. *angularis*
(Rose-Pink) Old fields and roadsides;
occasional; northeast intraneous;
6-4-66-261.

** *Sabatia angularis* (L.) Pursh f. *albiflora*
(Raf.) House Old field near road;
very rare; central intraneous; 8-3-66-883.

Swertia carolinensis (Walt.) Kuntze (Columbo)
Dry woods; occasional; northeast
intraneous; 5-28-66-250.

Family Apocynaceae

Amsonia tabernaemontana Walt. Weedy area in moist soil along stream; rare; northeast intraneous; 5-8-66-111.

Apocynum cannabinum L. (Indian Hemp) Old fields and fence rows; common; northeast intraneous; 8-3-66-882.

Apocynum cannabinum L. var. *pubescens* (Mitchell) A.DC. Old fields; occasional; northeast intraneous; 9-23-67-1464.

Family Asclepiadaceae

Ampelamus albidus (Nutt.) Britt. (Climbing Bluevine) Disturbed areas along edge of woods; occasional; south extraneous; 9-4-66-1212.

* *Asclepias purpurascens* L. (Purple Milkweed) Dry woods; occasional; northeast intraneous; 6-11-66-325.

Asclepias tuberosa L. var. *interior* (Woodson) Shinnors f. *interior* (Butterfly Weed) Waste ground along edge of cornfield; occasional; northeast intraneous; 5-8-66-535.

Asclepias variegata L. (White Milkweed) South-facing slope in open woods, somewhat

moist; rare; southeast extraneous;

6-12-66-1126.

Asclepias verticillata L. (Horsetail Milkweed)

Sandy open ground; occasional; north-

east intraneous; 7-15-67-1377.

Asclepias exaltata L. (Poke Milkweed) Rich

woods; very rare; northeast intraneous;

7-18-67-1456.

Gonolobus obliquus (Jacq) R.Br. (Angle-Pod)

upland woods on moist ledges in thin

soil; very rare; south extraneous;

8-9-67-1457.

Family Convolvulaceae

* *Cuscuta cuspidata* Engelm. (Dodder) Roadside;
occasional; central intraneous; 9-4-66-
635.

* *Cuscuta compacta* Juss. Wet area along road;
occasional; northeast intraneous;
9-24-66-757.

Cuscuta glomerata Choisy Waste ground; occasional;
northeast intraneous; 6-19-67-1191.

* *Cuscuta pentagona* Engelm. Waste ground; occasion-
al; northeast intraneous; 9-10-66-858.

* *Cuscuta polygonorum* Engelm. Waste ground;
common; northeast intraneous; 8-3-66-897.

- ** *Ipomoea lacunosa* F. f. *purpurata* Fern. (Morning Glory) Sandy soil along stream; very rare; northeast intraneous; 9-10-66-863.
- ** *Ipomoea pandurata* (L.) Meyer f. *pandurata* Edge of woods and stream; occasional; northeast intraneous; 9-4-66-1213.
- * *Ipomoea pandurata* (L.) Meyer f. *leviuscula* Fern. (Wild Potato Vine) Cultivated field along stream; occasional; northeast intraneous; 8-7-66-912.
- Ipomoea purpurea* (L.) Roth (Common Morning Glory) Cultivated field; common; northeast intraneous; 6-4-66-270.
- Ipomoea hederacea* (L.) Jacq. Old field; common; introduced from tropical America; 8-20-66-1020.

Family Polemoniaceae

- Phlox divaricata* L. (Blue Phlox) Moist woods; common; northeast intraneous; 4-16-66-56.
- Phlox glaberrima* L. (Phlox) Sandy ground in creek bed; occasional; central intraneous; 6-24-66-291.
- Phlox paniculata* L. (Fall Phlox) Low wet soil in woods; rare; northeast intraneous; 9-24-66-930.

Phlox pilosa L. (Pale Phlox) Dry woods, open;
common; northeast intraneous; 6-29-66-373.

Folemonium reptans L. (Jacob's Ladder) Dry
woods; common; northeast intraneous;
6-5-66-498.

Family Hydrophyllaceae

* *Hydrophyllum virginianum* L. (Wild Hydrophyllum)
Low mesic woods; occasional; northeast
intraneous; 7-25-67-938.

Phacelia bipinnatifida Michx. (Scorpion-weed)
Top of boulders in mesic woods; common;
southeast extraneous; 5-8-66-116.

Phacelia purshii Buckley (Miami Mist) Top
of boulders in woods; occasional;
central intraneous; 5-19-66-143.

Family Boraginaceae

Myosotis macrosperma Engelm. (Scorpion Grass)
Rich woodlands; occasional; southeast
extraneous; 5-20-66-231.

Myosotis verna Nutt. Dry woodland and sandy
fields; common; northeast intraneous;
5-19-66-149.

Mertensia virginica (L.) Pers. (Bluebells)
Rich woods; moist and shaded; occasional;

northeast intraneous; 4-16-66-45.

Cynoglossum virginianum L. (Wild Comfrey) Upland woods; occasional; northeast intraneous; 5-19-66-211.

Hackelia virginiana (L.) T.M. Johnston (Beggar's-lice) Edge of woods and old field; occasional; introduced from Europe and Asia; 9-4-66-639.

Family Verbenaceae

Verbena simplex Lehm. (Vervain) Edge of road and pine plantation; occasional; northeast intraneous; 7-20-66-356.

Verbena urticifolia L. (White Vervain) Waste ground and woodlands; rare; central intraneous; 9-4-66-627.

Verbena hastata L. (Blue Vervain) Dry open woodlands; occasional; northeast intraneous; 8-20-66-1022.

Family Phrymaceae

Phryma leptostachys L. (Lopseed) Oak-hickory woods; common; northeast intraneous; 8-21-66-1038.

Family Labiatae

Blephilia ciliata (L.) Benth. (Wood Mint) Dry

oak-hickory woods; common; northeast
intraneous; 6-5-66-506.

Blephilia hirsuta (Pursh) Benth. var. *hirsuta*
(Wood Mint) Upland woods; occasional;
northeast intraneous; 6-24-66-289.

Collinsonia canadensis L. Beech-maple woods,
shaded and moist; rare; northeast
intraneous; 9-21-67-1068.

Cunila origanoides (L.) Britt. (Common Dittany)
Upland woods; common; northeast intran-
eous; 9-4-66-606.

Glechoma hederacea L. var. *micrantha* Moricand
(Ground-Ivy) Sandy soil along stream;
rare; introduced from Eurasia; 4-23-66-71.

* *Hedeoma hispida* Pursh (Moch Pennyroyal) Dry woods;
occasional; northeast intraneous;
6-29-66-424.

Hedeoma pulegioides (L.) Pers. (Pennyroyal)
Old fields and woods; occasional; north-
east intraneous; 8-27-66-603.

Lycopus virginicus L. (Water Hore-Hound) Along
stream; occasional; northeast intraneous;
9-26-66-1220.

** *Monarda fistulosa* L. f. *albescens* Farw. (Wild
Bergamot) Low wet woods, shaded; very

rare; northeast intraneous; 9-4-66-
640.

Monarda fistulosa L. f. *fistulosa* (Wild Bergamot)
Edge of woods; occasional; northeast
intraneous; 6-4-66-269.

Monarda bradburiana Beck (Bergamot Mint) Open
woods; common; central intraneous;
6-5-66-1458.

Physostegia virginiana (L.) Benth. (Dragon's
Head) Open grassy area; very rare;
northeast intraneous; 9-23-67-1461.

Prunella vulgaris L. (Self-heal-mint) Old
fields, woods, and disturbed areas;
common; northeast intraneous; 7-20-66-355.

Pycnanthemum flexuosum (Walt.) BSP. (Mountain
Mint) Dry woods; common; northeast
intraneous; 6-14-67-1088.

Pycnanthemum pycnanthemoides (Leavenw.) Fern.
Dry woods and old fields; common;
southeast extraneous; 8-12-67-1372.

Pycnanthemum tenuifolium Schrad. Dry upland
woods; rare; northeast intraneous;
6-29-66-380.

Salvia lyrata L. (Lyre-leaved Sage) Upland
woods; occasional; northeast intraneous;

5-20-66-232.

* *Salvia pitcheri* Torr. (Sage) Rocky oak-hickory woods; occasional; northeast intraneous;

6-29-67-1388.

Scutellaria elliptica Muhl. var. *hirsuta* (Short)

Fern. (Skullcap Mint) Upland woods;

rare; northeast intraneous; 6-26-66-368.

Scutellaria incana Biehler (Downey Skullcap)

Dry oak-hickory woods; occasional;

northeast intraneous; 9-4-66-638.

Scutellaria leonardii Epling Thin soil atop

sandstone bluffs; occasional; north-

east intraneous; 5-19-66-206.

Scutellaria ovata Hill var. *ovata* (Heart-leaved

Skullcap) Sandstone bluffs and upland

woods; common; northeast intraneous;

7-11-66-345.

Scutellaria ovata Hill var. *versicolor* (Nutt.)

Fern. Sandstone bluffs and upland woods;

occasional; northeast intraneous;

7-21-66-578.

Stachys tenuifolia Willd. (Common Hedge-nettle)

Moist ground in woods; occasional;

northeast intraneous; 7-25-66-940.

Teucrium canadense L. (American Germander)

Sandy soil along stream; rare; north-east intraneous; 7-24-66-919.

Trichostema dichotomum L. (Bluecurls) Upland woods and atop bluffs; rare; northeast intraneous; 9-10-66-848.

Perilla frutescens (L.) Britt. (Beefsteak Plant) Moist rocky soil near stream; rare; introduced from India; 10-1-66-983.

Family Solanaceae

* *Physalis heterophylla* Nees (Ground Cherry) Old fields; common; northeast extraneous; 9-14-67-1457.

Physalis virginiana Mill. (Virginia Ground Cherry) Edge of cornfield; common; northeast intraneous; 9-14-67-1456.

Solanum carolinense L. (Horse-Nettle) Edge of old cornfield; occasional; northeast intraneous; 1-2-66-319.

Datura stramonium L. var. *stramonium* (Jimson-weed) Disturbed ground near old home site; occasional; introduced from tropics; 7-5-67-1082.

Datura stramonium L. var. *tatula* (L.) Torr. (Jimson-weed) Disturbed ground; occasional; introduced from tropics; 7-11-67-1075.

Family Scrophulariaceae

Gerardia gattingeri Small Upland woods, oak-hickory; rare; north intraneous; 10-21-66-1044.

Gerardia tenuifolia Vahl (Gerardia) Upland woods; occasional; northeast intraneous; 8-24-66-587.

Gerardia tenuifolia Vahl var. *macrophylla* Benth. Rocky soil, dry; rare; central intraneous; 8-9-67-1463.

* *Gerardia fasciculata* Ell. var. *fasciculata* Old fields; rare; southeast extraneous; 9-17-66-698.

** *Gerardia fasciculata* Ell. var. *albiflora* Palmer Old fields in wet areas; very rare; central extraneous; 9-29-67-1459.

Mimulus alatus Ait. (Monkey-Flower) Sandy soil along stream; occasional; northeast intraneous; 9-4-66-626.

Penstemon deamii Pennell (Beard tongue) Woodlands; occasional; 7-11-66-352.

Penstemon pallidus Small Oak-hickory woods; common; northeast intraneous; 6-29-66-387.

Penstemon digitalis Nutt. Woodlands; occasional;

northeast intraneous; 6-6-66-391.

Seymeria macrophylla Nutt. (Mullein Foxglove)

Mesic woods; occasional; central
intraneous; 7-21-67-1378.

Veronicastrum virginicum (L.) Farwell (Culver's-
root) Wooded thicket along stream; rare;
northeast intraneous; 8-22-66-594.

Aureolaria flava L. (False Foxglove) Upland
rocky woods; occasional; northeast
intraneous; 7-21-66-573.

Verbascum thapsus L. (Common Mullein) Disturbed
areas; occasional; introduced from
Europe; 8-3-66-896.

Veronica peregrina L. (Purslane Speedwell)
Disturbed areas; occasional; northeast
intraneous; 4-8-67-1176.

Veronica arvensis L. (Corn Speedwell) Edge of
woods; occasional; introduced from
Europe; 4-23-66-94.

Pedicularis canadensis L. (Lousewort) Dry
upland woods; very rare; northeast
intraneous; 5-8-66-117.

Family Acanthaceae

Justicia americana (L.) Vahl (Water Willow)
Shallow pools and riffles in stream;

occasional; central intraneous; 6-5-66-488.

Ruellia humilis Nutt. (*Ruellia*) Oak-hickory woods; occasional; northeast intraneous; 9-23-66-736.

* *Ruellia pedunculata* Torr. (Stalked *Ruellia*) Sandy soil near stream; rare; south extraneous; 8-27-66-772.

* *Ruellia strepens* L. (Smooth *Ruellia*) Rich moist soil in mesic woods; occasional; northeast intraneous; 7-20-66-358.

Family Phrymaceae

Phryma leptostachya L. (Lopseed) Dry woods in fence row; rare; northeast intraneous; 7-14-67-305.

Family Orobanchaceae

Epifagus virginiana (L.) Britt. (Beech Drops) Oak-hickory-beech woods; common; northeast intraneous; 9-27-66-772.

Family Bignoniaceae

Bignonia capreolata L. (Cross-Vine) Bluff tops; rare; south extraneous; 4-16-66-52.

Campsis radicans (L.) Seem. (Trumpet-Creeper) Woodlands; occasional; northeast

intraneous; 8-7-66-908.

Catalpa bignonioides Walt. (Catalpa) Edge of
old field; rare; escaped from south;
6-29-66-385.

Family Plantaginaceae

Plantago aristata Michx. (Bracted Plantain)

Field and open woods; common; northeast
intraneous; 6-4-66-275.

Plantago lanceolata L. (Buckhorn Plantain)

Edge of roads; common; introduced from
old world; 6-5-66-510.

* *Plantago major* L. (Broad-leaved Plantain) Near
old home site; rare; introduced from
Eurasia; 9-4-66-623.

Plantago pusilla Nutt. Waste ground; common;
northeast intraneous; 8-4-67-1182.

* *Plantago rhodosperma* Dcne. Edge of woods; rare;
central extraneous; 5-9-67-1198.

Plantago rugelii Dec. (Common Plantain) Old
fields; common; northeast intraneous;
9-4-66-631.

Plantago virginica L. Waste ground; occasional;
northeast intraneous; 5-8-66-541.

Family Rubiaceae

Cephalanthus occidentalis L. (Buttonbush) Along

stream; occasional; northeast intraneous;

6-4-66-260.

Diodia teres Walt. var. *teres* (Buttonweed)

Sandy soil; occasional; northeast

intraneous; 6-4-66-277.

* *Diodia teres* Walt. var. *setifera* Fern. & Griseb.

Sandy soil near stream; occasional;

northeast intraneous.

Mitchella repens L. f. *repens* (Partridge berry)

Mossy ledges; occasional; northeast

intraneous; 5-27-66-239.

** *Mitchella repens* L. f. *leucocarpa* Bissell Mossy

ledges; very rare; central intraneous;

7-5-67-328.

Galium concinnum Torr. & Gray (Bedstraw) Dry

woods; common; northeast intraneous;

7-11-66-329.

Galium pilosum Ait. (Purple Bedstraw) Dry

woods; common; northeast intraneous;

7-9-66-320.

Galium circaezans Michx. Woodlands; occasional;

northeast intraneous; 5-6-66-483.

Galium obtusum Bigel. Dry woods; common;

northeast intraneous; 6-26-66-369.

Galium aparine L. (Goosegrass) Old fields;

common; northeast intraneous; 4-29-66-105.

Galium circaezans Michx. var. *hypomalacum* Fern.

Waste ground; occasional; northeast intraneous; 6-26-66-1208.

* *Houstonia longifolia* Gaertn. (Bluets) Wet soil on top of bluffs; rare; northeast intraneous; 5-21-66-452.

** *Houstonia purpurea* L. f. *pubescens* (Britt.) Fern. Old fields; occasional; central intraneous; 6-5-66-502.

* *Houstonia canadensis* Willd. North-facing bluff, mossy ledges; rare; northeast extraneous; 9-27-66-768.

* *Houstonia minima* Beck Old fields; occasional; central intraneous; 4-2-66-32.

* *Houstonia minima* Beck Old fields; occasional; central intraneous; 4-2-66-32.

Family Caprifoliaceae

Viburnum recognitum Fern. (Arrow wood) North-facing ledges; rare; northeast extraneous; 9-27-66-769.

Viburnum prunifolium L. (Black Haw) North-facing ledge; rare; southeast extraneous; 5-8-66-524.

* *Viburnum dentatum* L. var. *deamii* (Rehder)

Fern. (Southern Arrow-wood) North-facing ledge, shaded; rare; central intraneous; 9-11-66-680.

Sambucus canadensis L. var. *canadensis* (Common Elder) Disturbed areas; occasional; northeast intraneous; 9-10-66-852.

** *Lonicera flava* Sims var. *flavescens* (Small)

Gl. (Yellow Honeysuckle) North-facing ledge, partly open; very rare; central extraneous; 6-29-67-428.

Lonicera japonica Thunb. (Japanese Honeysuckle)

Disturbed areas near old home site; occasional; introduced from eastern Asia; 5-27-66-235.

Lonicera sempervirens L. (Trumpet Honeysuckle)

Edge of field near old home site; rare; escaped from cultivation; 7-4-67-1213.

Triosteum angustifolium L. (Horse Gentian)

Dry woods along foot-trail; rare; northeast intraneous; 8-27-66-592.

Symphoricarpus orbiculatus Moench. (Coral-

Berry) Disturbed ground near old home sites; occasional; northeast intraneous; 8-14-66-805.

Family Campanulaceae

Campanula americana L. var. *illinoensis* (Fresn.)

Farw. (Tall Bellflower) Moist shaded
woods; occasional; northeast intraneous;
7-24-66-925.

* *Triodanis biflora* L. (Venus Looking-glass)

Bluff tops where moist; occasional;
south extraneous.

Triodanis perfoliata (L.) Nieuwl. Bluff tops,

shaded; occasional; northeast intraneous;
5-27-66-240.

Family Lobeliaceae

Lobelia spicata Lam. (Pale Spike Lobelia) Dry

sandy soil; occasional; northeast
intraneous; 6-29-66-376.

Lobelia siphilitica L. var. *siphilitica* Wet

ground; occasional; northeast intraneous.

Lobelia siphilitica L. var. *ludoviciana* A.DC.

(Blue Cardinal flower) Wet ground near
stream; occasional; northeast intraneous;
8-27-66-583.

Lobelia inflata L. (Indian Tobacco) Woods and

old fields; occasional; northeast
intraneous; 6-4-66-266.

Lobelia cardinalis L. (Cardinal flower) Moist

ground, sandy; rare; northeast
intraneous; 9-4-66-648.

Family Valerianaceae

Valerianella radiata (L.) Dufur. (Lamb's
Lettuce) Waste ground, wet; occasional;
south extraneous; 5-19-67-1194.

Valeriana pauciflora Michx. (Valerian) Deep
mesic woods; rare; northeast extraneous;
5-21-66-445.

Family Compositae

Aster shortii Lindl. Rocky wooded slopes; rare;
central intraneous; 9-12-67-1053.

* *Aster drummondii* Lindl. Dry woods; occasional;
central intraneous; 10-15-66-1074.

* *Aster ericoides* L. f. *prostratus* (Kuntze) Fern.
Dry woods; rare; northeast intraneous;
9-23-67-1428.

* *Aster simplex* Willd. Waste ground, moist;
occasional; north extraneous; 9-23-67-
1431.

Aster turbinellus Lindl. Rocky woods;
occasional; southwest extraneous;
9-23-67-1439.

* *Aster cordifolius* L. var. *cordifolius*. Waste

- ground; occasional; northeast
extraneous; 10-15-66-1072.
- * *Aster azureus* Lindl. Old fields; rare;
central intraneous; 9-10-66-831.
- * *Aster simplex* Willd. var. *ramosissimus* (T. &
G.) Cronq. Waste ground; occasional;
8-7-66-911.
- * *Aster anomalus* Engelm. Woods; occasional;
southwest extraneous; 9-27-66-781.
- Aster lateriflorus* (L.) Britt. Dry woods;
occasional; northeast intraneous;
10-15-66-1084.
- Aster pilosus* Willd. var. *pilosus* Edge of
field and woods; occasional; northeast
intraneous; 9-10-66-846.
- ** *Aster pilosus* Willd. var. *pilosus* f. *pulchellus*
Benke Open grassy area; very rare;
northeast intraneous; 10-15-66-1079.
- * *Aster novae-angliae* L. Open grassy area; rare;
northeast intraneous; 4-18-66-709.
- * *Aster praealtus* Poir. Old field; occasional;
central intraneous; 10-2-66-989.
- Aster patens* Ait. Waste ground; occasional;
northeast intraneous; 10-21-66-1052.
- Aster patens* Ait. var. *patentissimus* (Lindl.)

T. & G. Dry woods; common; northeast
intraneous; 10-2-66-1048.

Antennaria plantaginifolia (L.) Richards
(Pussy's-Toes) Dry upland woods and
atop bluffs; common; northeast intraneous;
7-11-66-344.

Ambrosia coronopifolia (T. & G.) Farw. (Rag-
weed) Disturbed area along foot-trail;
occasional; 9-11-66-667.

Ambrosia bidentata Michx. Roadside; occasional;
south extraneous; 9-18-66-705.

Ambrosia trifida L. Edge of old field and woods;
rare; northeast intraneous; 7-15-67-1395.

* *Ambrosia trifida* L. var. *trifida* f. *integrifolia*
(Muhl.) Fern. Edge of old field and
woods; rare; northeast intraneous;
7-15-67-1392.

Ambrosia artemisiifolia L. (Ragweed) Waste
ground; common; continental intraneous;
7-15-67-1394.

Achillea millefolium L. (Queen Ann's Lace)
Old fields and roadside; common; intro-
duced from Europe; 8-16-67-1374.

Artemisia annua L. (Annual Wormwood) Waste
ground; common; naturalized from Europe;
8-24-67-1425.

- * *Boltonia asteroides* (L.) L'Her. var. *recognita*
(Fern. & Griseb.) Cronq. Open waste ground;
rare; northeast intraneous; 8-3-66-887.
- Bidens aristosa* (Michx.) Britt. (Tickseed-
Sunflower) Moist ground; common; north-
east intraneous; 8-3-66-877.
- * *Bidens aristosa* (Michx.) Britt. var. *mutica*
Gray Moist soil; occasional; common;
northeast intraneous; 10-15-66-1070.
- Bidens comosa* (Gray) Wieg. Moist ground; rare;
northeast intraneous; 10-1-66-963.
- Bidens bipinnata* L. (Spanish Needles) Old
fields and roadsides; common; northeast
intraneous; 9-23-66-732.
- Cirsium altissimum* (L.) Spreng. Waste ground;
occasional; northeast intraneous;
8-3-66-879.
- Cirsium discolor* (Muhl.) Spreng. f. *discolor*
Waste ground; occasional; northeast
intraneous; 7-9-66-315.
- Chrysanthemum leucanthemum* L. var. *leucanthemum*
(Ox-Eye Daisy) Old fields and roadsides;
occasional; introduced from Europe and
Asia; 5-27-66-236.
- Coreopsis pubescens* Ell. var. *pubescens* (Tick-
seed) Dry oak-hickory woods; south

extraneous; 7-21-66-570.

Coreopsis tripteris L. (Tickseed) Open woods;
occasional; northeast intraneous;
9-4-66-617.

Eclipta alba (L.) Hassk. (Yerba-de-Tago) Moist
soil in woods; occasional; northeast
intraneous; 9-27-66-778.

Elephantopus carolinianus Willd. (Elephant's
Foot) Dry uplands; occasional; central
intraneous; 8-27-66-593.

* *Erigeron pulchellus* Michx. var. *pulchellus*
(Fleabane) Open woods; rare; north
extraneous; 4-30-67-1138.

Erigeron strigosus Muhl. (Daisy fleabane)
old fields; common; northeast intraneous;
5-21-66-237.

** *Erigeron tenuis* T. & G. Old field; very rare;
central extraneous; 9-4-66-636.

Erigeron canadensis L. (Muletail) Old fields;
occasional; northeast intraneous;
9-4-67-11466.

Eupatorium serotinum Michx. (Thoroughwort)
Along stream; common; southeast extraneous;
9-10-66-843.

Eupatorium rugosum Houtt. (White Snakeroot)

Sandy soils along stream and moist areas
in woods; northeast intraneous; 9-4-66-
625.

* *Eupatorium fistulosum* Barratt (Joe-Pye-Weed)

Rocky creek bed; rare; 9-4-66-1030.

Eupatorium perfoliatum L. var. *perfoliatum*

(Boneset) Dry woods; occasional; north-
east extraneous; 8-20-66-1018.

Gnaphalium obtusifolium L. (Catfoot) Dry

uplands; common; northeast intraneous;
10-1-66-978.

Helenium autumnale L. var. *parviflorum* (Nutt.)

Fern. (Sneezeweed) Old field;
occasional; southeast extraneous; 6-4-
66-268.

Helenium nudiflorum Nutt. Old fields; occasional;

northeast intraneous; 7-25-66-941.

* *Helianthus grosseserratus* Martnes (Sunflower)

Open areas; occasional; northeast
intraneous; 7-25-66-951.

Helianthus laetiflorus Pers. var. *laetiflorus*

Thicket near stream, weedy; occasional;
8-21-66-1016.

Helianthus divaricatus L. Old field; occasional;

northeast intraneous; 9-4-66-1214.

* *Helianthus hirsutus* Raf. var. *trachyphyllus* T. &

G. Open woods; occasional; northeast
intraneous; 9-4-66-619.

Helianthus microcephalus T. & G. Dry, open
woods; common; southeast extraneous;
9-4-66-630.

Hieracium gronovii L. (Hawkweed) Dry uplands;
common; northeast intraneous; 7-21-66-
574.

Helopsis helianthoides (L.) Sweet var. *scabra*
(Dunal) Fern. (Ox-Eye) Oak-hickory
woods; occasional; northeast intraneous;
9-23-66-734.

Heliopsis helianthoides (L.) Sweet Oak-hickory
woods; occasional; northeast intraneous;
8-5-67-1400.

Krigia oppositifolia Raf. (Dwarf Dandelion)
Moist sandy soil; common; south extrane-
ous; 6-19-66-151.

Krigia biflora (Walt.) Blake Wooded slopes;
occasional; northeast intraneous;
5-21-66-131.

Krigia dandelion (L.) Nutt. Open woods, dry;
common; southeast extraneous; 5-19-66-
398.

Lactuca canadensis L. (Lettuce) Old fields,
weedy areas; occasional; northeast

** *Prenanthes altissima* L. var. *cinnamomea* Fern.

(Rattlesnake-Root) Crevices in bluff;

very rare; northeast intraneous;

7-21-66-565.

Rudbeckia triloba L. (Coneflower) Open woods;

rare; northeast intraneous; 9-11-66-670.

Rudbeckia hirta L. Old field; common; north-

east intraneous; 7-11-66-347.

* *Rudbeckia hirta* L. var. *pulcherrima* Farw. Old

fields and grassy area along road; rare;

northeast intraneous; 8-3-66-901.

Rudbeckia laciniata L. (Golden-Glow) Along

stream in woods; occasional; northeast

intraneous; 8-20-66-1013.

Erechtites hieracifolia (L.) Raf. (Fireweed)

Moist soil in woods; common; north-

east intraneous; 9-23-67-1373.

Senecio obovatus Muhl. (Ragwort) Sandy soil

along stream; rare; northeast intraneous;

4-29-66-89.

Senecio glabellus Poir. Moist ground; common;

south extraneous; 6-5-66-511.

Senecio aureus L. Wet area along road; common;

northeast intraneous; 6-5-66-485.

Solidago juncea Ait. var. *juncea* (Goldenrod)

Old field; common; northeast intraneous;

intraneous; 8-27-66-590.

* *Lactuca canadensis* L. var. *longifolia* (Michx.)
Farw. f. *angustipes* Wieg. Old field and
edge of woods; very rare; northeast
intraneous; 8-7-66-907.

Lactuca floridana (L.) Gaertn. var. *villosa*
(Jacq.) Cronq. Crevices in bluff and
mossy ledges; rare; northeast intraneous;
9-27-66-771.

Lactuca muralis (L.) Gaertn. Old field; rare;
northeast extraneous; 8-3-66-873.

Liatris squarrosa (L.) Michx. *hirsuta* Rydb.
(Blazing Star) Opening in woods; rare;
southeast extraneous; 8-27-66-597.

Liatris spicata (L.) Willd. Dry open area on
bluff top; occasional; southeast intran-
eous; 8-14-66-810.

Liatris scabra (Greene) K. Schum. Open grassy
area in woods; rare; south extraneous;
7-25-66-950.

Polymnia canadensis L. f. *canadensis* (Leafcup)
waste ground; occasional; northeast
intraneous; 6-26-66-365.

Polymnia uvedalia L. var. *uvedalis* Waste ground
near stream; rare; northeast intraneous;
8-21-66-1031.

7-24-66-915.

Solidago nemoralis Ait. var. *nemoralis* Open
waste ground; common; northeast intrane-
eous; 10-21-66-1059.

Solidago nemoralis Ait. var. *decemflora* (DC.)
Fern. (Field Goldenrod) Open grassy
area; occasional; northeast intraneous;
9-18-66-701.

Solidago flexicaulis L. Old field and open woods;
common; central intraneous; 9-10-66-841.

Solidago caesia L. (Blue-Stemmed Goldenrod)
Bluff tops; common; northeast intraneous;
10-15-66-1210.

Solidago buckleyi Torr. & Gray Top of bluffs;
common; south extraneous; 9-4-66-615.

* *Solidago rugosa* Ait. var. *rugosa* Shaded area
in old field; rare; northeast intrane-
eous; 11-6-66-1123.

Solidago rugosa Ait. var. *aspera* (Ait.) Cronq.
Low moist area; rare; central intrane-
eous; 9-23-66-717.

Solidago missouriensis Nutt. var. *fasciculata*
Holizinger Open grassy areas in old
field; rare; central intraneous;
7-25-66-945.

- Silphium perfoliatum* L. f. *perfoliatum* (Cup-Plant) Thicket near stream; rare; northeast intraneous; 9-10-66-837.
- Silphium integrifolium* Michx. var. *integrifolium* Weedy area near cornfield; occasional; central intraneous; 9-10-66-1448.
- Taraxcum officinale* Weber (Common Dandelion) Waste ground; rare; introduced from Europe; 6-12-66-1007.
- Verbesina virginica* L. (Frostweed) Waste ground; occasional; south extraneous; 9-23-66-730.
- Verbesina alternifolia* (L.) Britt. (Crown-Beard) Woods; common; northeast intraneous; 7-11-66-349.
- Vernonia altissima* Nutt. var. *taeniotricha* Blake (Ironweed) Open woods and edge of stream; occasional; south extraneous; 8-20-66-1028.
- * *Vernonia missurica* Raf. Open grassy area; occasional; northeast intraneous; 8-3-66-874.
- Xanthium chinense* Mill. (Cockel-Bur) Disturbed area in edge of cornfield; occasional; southeast extraneous; 9-28-67-1458.

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