

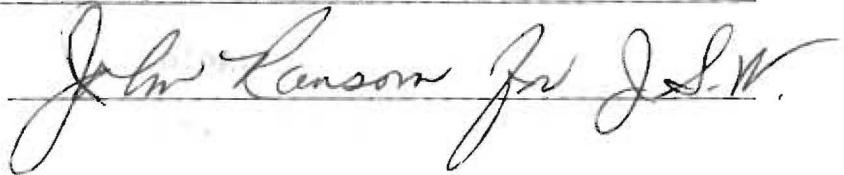
AN ABSTRACT OF THE THESIS OF

Michael Nelson for the Master of Science
in Biology presented on 22 April, 1980

Title: The Vascular Flora of

Doniphan County, Kansas

Abstract approved:



A checklist of the vascular flora of Doniphan County, Kansas was established. From August, 1975 to November, 1979 certain ecological and phenological data were obtained and a specimen for each plant recorded was housed in the Emporia State University Herbarium. A total of 710 species were collected belonging to 387 genera and 97 families.

THE VASCULAR FLORA OF DONIPHAN COUNTY, KANSAS

A Thesis

Submitted to

The Division of Biological Sciences

Emporia State University, Emporia, Kansas

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Michael Nelson

March, 1980

Thesis
1980
N
MEN

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

41480

James S. Wilson By J. Ronson
Approved for Major Department

Lance E. Durst
Approved for Graduate Council

DATA PROCESSING

41480 NO 13 '80

ACKNOWLEDGEMENTS

I wish to express my appreciation to Dr. James S. Wilson, curator of the Emporia State University Herbarium. I would like to thank Dr. John Ransom for his assistance in reviewing this paper. In addition, I would like to thank Dr. Ronald L. McGregor, curator of the University of Kansas Herbarium, for the privilege of examining Doniphan County specimens, and Dr. Ole A. Kolstad, curator of the Kearney State College Herbarium, for his annotations of Cyperaceae.

TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vi
LIST OF FIGURES	vii
INTRODUCTION	1
MAJOR COLLECTING AREAS	5
EXPLANATION OF CHECKLIST AND REFERENCES USED	8
THE ANNOTATED CHECKLIST	9
SUMMARY	62
LITERATURE CITED	64
APPENDIX	66
INDEX	68

LIST OF TABLES

Table	Page
I. Number of families, genera, and species in each plant division	62
II. Number of species in the twelve largest families	63
III. Number of species of the twenty largest genera	63

LIST OF FIGURES

Figure	Page
1. Physiographic Map of Kansas	2
2. Doniphan County map with major collection sites	6

INTRODUCTION

Doniphan County is located in the northeastern-most part of Kansas (Figure 1). It is bordered on the south by Atchison County, on the west by Brown County, on the north by Richardson (Nebraska) and Holt (Missouri) Counties, and on the east by Andrew and Buchanan (Missouri) Counties.

The flora of the county was studied by the author from August, 1975 to November, 1979; during this time over 2,000 collections were made. The purpose of this collection was to establish a checklist of the vascular flora of Doniphan County, Kansas, as well as to obtain certain ecological and phenological data for each species.

Physiographic Description

Doniphan County is located in the glaciated region of Kansas and is known locally as the Kansas Switzerland. Its northern and eastern portions, composed of loess hills, oxbows and sandbars, are bordered by the Missouri River. The remainder of the county is characterized by rolling loess hills which often contain Pennsylvanian surface rock (Schoewe 1949). The Wolf River, which drains much of this area, eventually flows into the Missouri River.

Doniphan County is dominated by an Eastern Deciduous Forest vegetation. The forested areas may be divided into the drier uplands and the lower wet ravines and north slopes.

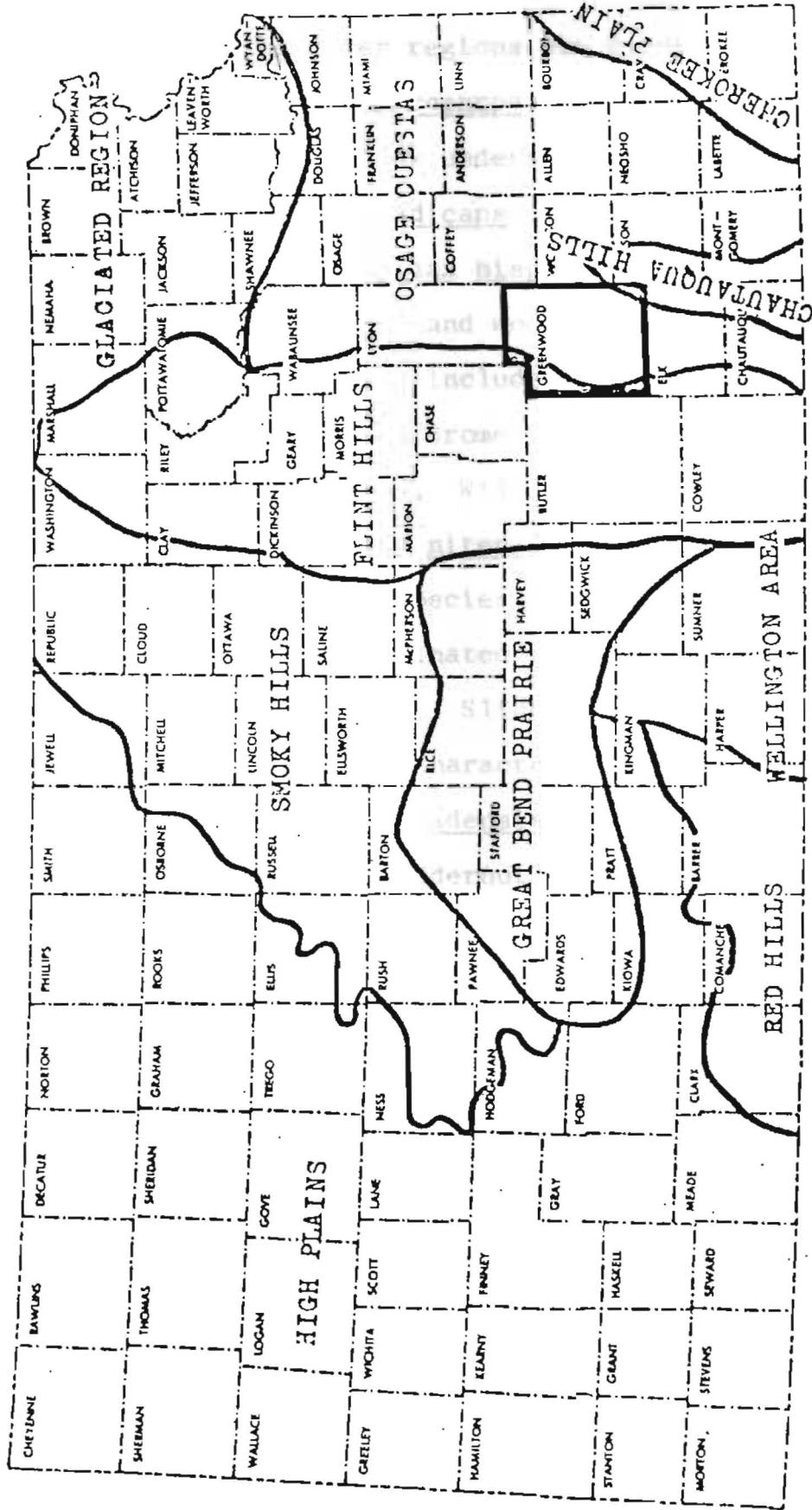


Figure 1 Physiographic Map of Kansas (As modified from Schoewe, 1949)

Dominant trees in the drier regions are Black Oak (Quercus velutina), Bur Oak (Q. macrocarpa) and Chesnut Oak (Q. muehlenbergii). Common woody understory plants include Poison Ivy (Toxicodendron radicans), Moonseed (Menispermum canadense), Greenbrier (Smilax hispida), Buckbrush (Symporicarpos orbiculatus) and Woodbine (Parthenocissus vitacea). Common graminoids include Broad-glumed Brome (Bromus latiglumis), Canada Brome (B. pubescens), Stout Woodreed (Cinna arundinacea), Wild Rye (Elymus villosus), Three-flowered Melic (Melica nitens), Muhly (Muhlenbergia sobolifera), and numerous species of Panic Grass (Panicum). The lower rich woods are dominated by Basswood (Tilia americana), Ironwood (Ostrya virginiana), Slippery Elm (Ulmus rubra) and various Hickories (Carya). Characteristic understory plants are Wood Nettle (Laportea canadensis), Wood Tick Trefoil (Desmodium glutinosum), Bladdernut (Staphylea trifolia) and Dewberry (Rubus flagellaris). Some common rich wood graminoids are Sedge (Carex sparganioides), Hitchcock's Sedge (C. hitchcockiana), Rose-shaped Sedge (C. rosea), Diarrhena Grass (Diarrhena americana), Obtuse Fescue (Festuca obtusa), White Grass (Leersia virginica) and Blue Grass (Poa sylvestris).

The predominate woody vegetation along the Missouri River consists of various species of Willows (Salix), Green Ash (Fraxinus pennsylvanica var. subintegerrima), Box Elder (Acer negundo), and Sycamore (Platanus occidentalis). Common graminoids here are Sedge (Carex lacustris), Umbrella Sedge (Cyperus erthrorhizos), Lovegrass (Eragrostis hypnoides), Cut Grass (Leersia oryzoides) and Reed Canary

Grass (Phalaris arundinacea). Important forbs of this area are Ditch Stonecrop (Penthorum sedoides), Docks (Rumex), Water Hemp (Amaranthus tamariscinus) and numerous Smartweeds (Polygonum).

The dry prairies in this region are found on loess exposures. Important graminoids here usually include Sideoats Grama (Bouteloua curtipendula), Hairy Grama (B. hirsuta), and Little Bluestem (Schizachyrium scoparium). The common forbs are Butterfly Milkweed (Asclepias tuberosa), New Jersey Tea (Ceanothus americana), Wreath Aster (Aster ericoides) and Missouri Goldenrod (Solidago missouriensis). Important lowland grasses include Big Bluestem (Andropogon gerardii), Indian Grass (Sorghastrum avenaceum), Switch Grass (Panicum virgatum) and Slough Grass (Spartina pectinata) in the wetter areas. Characteristic forbs of the low prairies are Compass Plant (Silphium laciniatum), Purple Coneflower (Echinacea pallida) and several Sunflowers (Helianthus), Goldenrods (Solidago) and Asters (Aster).

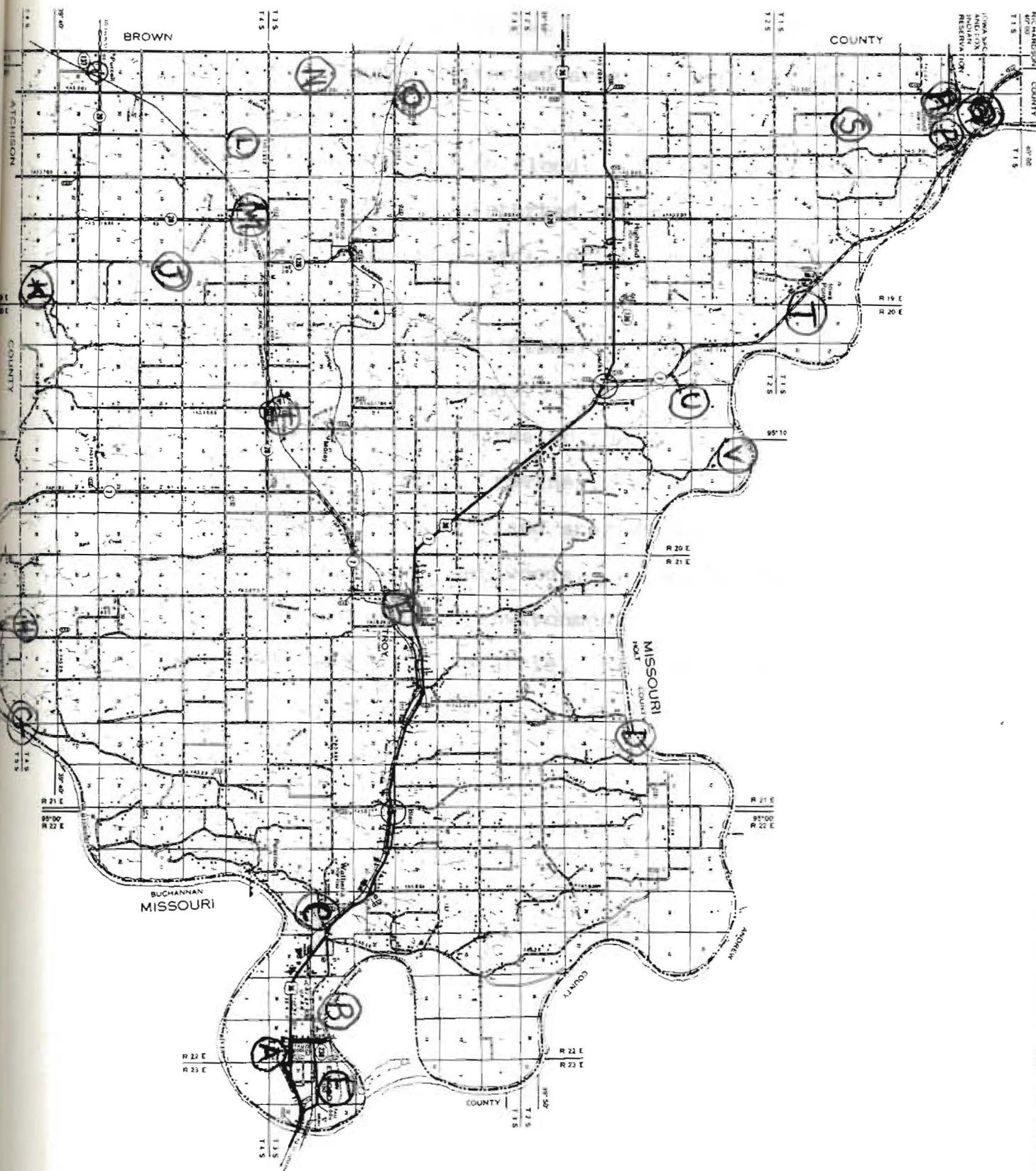
Much of the county's natural flora, particularly in the more open areas, has been replaced by weedy species due to many of man's practices. Smooth Brome (Bromus inermis), Kentucky Bluegrass (Poa pratensis) and Meadow Fescue (Festuca pratensis) are abundant along roadsides and pastures. Other weedy species such as Crab Grass (Digitaria), Spurges (Euphorbia), Knotweeds (Polygonum) and Plantains (Plantago) often are abundant in the urban areas.

MAJOR COLLECTING AREAS

Several collecting sites were visited periodically during four growing seasons (1976-1979). These represent the common habitats found within the county; other, less common ones, were visited less frequently (Figure 2).

- A. Elwood Sewage Treatment Area: Missouri River flood plain and sandy waste area.
- B. Oxbow lake: aquatic environment, mudflats and marshy areas.
- C. Wathena: railroad tracks, alleys, lawns and disturbed areas.
- D. River road north of Troy: Missouri River mudflats, sandbars and rich woods (north slope).
- E. Elwood: wet ditches, alleys, railroad tracks and disturbed areas.
- F. Troy: disturbed areas and railroad tracks.
- G. Marsh east of Doniphan: Missouri River flood plain and intermittent marsh.
- H. Creek north of Doniphan: rich wooded slopes and creek bank.
- I. Bendena: disturbed areas.
- J. Quarry southeast of Denton: eroded prairie and wooded area.
- K. Anderson's farm: dry woods and waste.
- L. Bottiger's farm: spring and boggy area.
- M. Denton: railroad, alleys and disturbed areas.

Figure 2. Doniphan County map with major collecting sites.



- N. Kleppe's farm: prairie (mowed by second week of July).
- O. Leona: railroad tracks.
- P. White Cloud: disturbed areas, sandbars and mudflats.
- Q. Park north of White Cloud: exposed loess hilltop, dry prairie and disturbed prairie.
- R. White Cloud graveyard: prairie remnant and open woods ecotone.
- S. Farm south of White Cloud: exposed hilltop (loess), prairie and dry woods.
- T. Highway 7 (from Sparks to the Nebraska border): sloughs, bluffs, ravines, rich woods, sandbars, mudflats, prairies and grazed pastures.
- U. Eagle Springs: wet woods, wooded slopes, ravines, marsh and aquatic environments.
- V. Snyder's ranch: prairie, rich wooded ravines and slopes.

EXPLANATION OF THE CHECKLIST AND REFERENCES USED

Ecological and phenological data were recorded for each species collected. These usually included the scientific name, common name (and synonyms, where appropriate), growth type, habitats, restricted locations, frequency, flower color and date of collection. Voucher specimens with detailed labels are housed in the Emporia State University Herbarium. Nomenclature and sequence is based on The Atlas of Vascular Flora of the Great Plains (McGregor, et al. 1975).

Several manuals were used for plant identification. These included: Flora of Missouri (Steyermark 1964), Gray's Manual of Botany (Fernald 1950), A Manual of the Flowering Plants of Kansas (Barkley 1968), Woody Plants of the North Central Plains (Stephans 1973), Manual of the Grasses of North America (Hitchcock 1950), and The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada (Gleason 1952). In addition, several monographs and revisions were used in the identification of difficult groups (see bibliography).

VASCULAR PLANTS OF DONIPHAN COUNTY

Division ARTHROPHYTA

EQUISETACEAE (Horsetail Family)

Equisetum arvense L. Field Horsetail. Perennial herb; sandy areas; common; sporulates April-May.

Equisetum hyemale L. Winter Scouring Rush. Perennial herb; Missouri River flood plain; infrequent; sporulates March-August.

Equisetum laevigatum A. Br. Smooth Scouring Rush. Perennial herb; Missouri River flood plain; infrequent; sporulates March-July.

Division PTEROPHYTA

OPHIOGLOSSACEAE (Adder's Tongue Family)

Botrychium virginianum (L.) Sw. Rattlesnake Fern. Perennial herb; rich woods; common; sporulates May-July.

Osmunda cinnamomea L. Cinnamon Fern. Perennial herb; boggy area; Bottiger's farm; common; sporulates May-June.

POLYPODIACEAE (Fern Family)

Adiantum pedatum L. Maidenhair Fern. Perennial herb; rich wooded slopes; common; sporulates June-August.

Cystopteris protusa (Weath.) Blasdell. Fragile Fern. Perennial herb; moist woodlands; abundant; sporulates June-September.

Onoclea sensibilis L. Sensitive Fern. Perennial herb; boggy area; Bottiger's farm; common; sporulates June-November.

Pellea glabella Mett. ex Kuhn. var. glabella Smooth Cliffbrake. Perennial; limestone outcroppings; bluff east of Wathena; infrequent; sporulates April-October.

Thelypteris palustris Schott. Marsh Fern. Perennial herb; boggy area; Bottiger's farm; common; sporulates June-October.

Division CONIFEROHYTA

CUPPRESSACEAE (Juniper Family)

Juniperus virginiana L. Red Cedar. Tree; dioecious; pastures and dry areas on top of loess; infrequent; flowers April; cones September.

Division ANTHOPHYTA

Dicotyledoneae

ANNONACEAE (Custard Family)

Asimina triloba (L.) Dun. PawPaw. Tree; woods; common; flowers brown; April-May.

ARISTOLOCHIACEAE (Birthwort Family)

Asarum canadense L. Wild Ginger. Perennial herb; rich woods; infrequent; flowers brown; April-May.

NELUMBONACEAE (Lotus Family)

Nelumbo lutea (Willd.) Pers. American Lotus. Perennial; oxbow lake (one large population); flowers pale yellow; June-September.

RANUNCULACEAE (Buttercup Family)

Anemone canadensis L. White Anemone. Perennial herb; river bottoms; common; flowers white; May-July.

Anemone cylindrica Gray. Thimbleweed. Perennial herb; dry open loess areas and exposed hills; infrequent; flowers cream-colored; May-July.

Anemone virginiana L. Thimbleweed. Perennial herb; woods; common; flowers cream-colored; April-August.

Aquilegia canadensis L. Columbine. Perennial herb; rich woods and limestone bluffs; common; flowers red with yellow; April-June.

Clematis pitcheri T. & G. Leather Flower. Perennial vine; woods; infrequent; flowers (sepals) dull purple; May-September.

Delphinium ajacis L. Rocket Larkspur. Annual; roadsides and railroads; common; flowers blue to pink; May-September.

Delphinium tricorne Michx. Dwarf Larkspur. Perennial herb; rocky woods; common; flowers blue; April-June.

Delphinium virescens Nutt. Prairie Larkspur. Perennial herb; prairies; common; flowers white; May-July.

Isopyrum biternatum (Raf.) T. & G. False Rue Anemone. Perennial herb; woods; common; flowers white; March-May.

Ranunculus abortivus L. Small Flowered Crowfoot. Annual; lawns, waste and disturbed areas; abundant; flowers yellow; May-July.

Ranunculus recurvatus Poir. Hooked Crowfoot. Perennial herb; rich woods and streams; infrequent; flowers yellow; May-July.

Ranunculus sceleratus L. Cursed Crowfoot. Annual; alluvial ground; abundant; flowers yellow; May-August.

Thalictrum dasycarpum Fishch., May. and Avenhall. Purple Meadow Rue. Perennial herb; prairie and wooded areas; common; flowers white; May-July.

Thalictrum dioicum L. Early Meadow Rue. Perennial herb; north slope of wooded bluffs; common; flowers white; April-May.

BERBERIDACEAE (Barberry Family)

Caulophyllum thalictroides (L) Michx. Blue Cohosh. Perennial herb; wooded ravines; infrequent; flowers white; March-May.

Podophyllum peltatum L. May Apple. Perennial herb; rich wooded areas; common; flowers white; May.

MENISPERMACEAE (Moonseed Family)

Menispermum canadense L. Moonseed. Perennial vine; woods, river bottoms and ravines; common; flowers white; May-July.

PAPAVERACEAE (Poppy Family)

Argemone polyanthemos (Fedde) G. Ownbey. Prickley Poppy. Annual or biennial; waste areas; Elwood sewage treatment area; common; flowers white; July-August.

Sanguinaria canadensis L. Bloodroot. Perennial herb; woods; common; flowers white; March-April.

FUMARIACEAE (Fumitory Family)

Corydalis micrantha (Engelm.) Gray. Yellow Fumewort.
Biennial; roadsides and railroads; common; flowers yellow; April-May.

Dicentra cucullaria (L.) Bernh. Dutchman's Breeches.
Perennial herb; woods; abundant; flowers white; March-April.

PLATANACEAE (Plane Tree Family)

Platanus occidentalis L. Sycamore. Tree; river bottoms and woodlands; common; flowers green; April-June.

ULMACEAE (Elm Family)

Celtis occidentalis L. Hackberry. Tree; fencerows and woods; abundant; flowers green; April-May.

Ulmus americana L. American Elm. Tree; roadsides and woods; common; flowers green; February-April.

Ulmus pumila L. Siberian Elm. Tree; roadsides and fencerows; common; flowers green; March-April.

Ulmus rubra Muhl. Slippery Elm. Tree; wooded areas; common; flowers green; February-April.

Ulmus thomasi Sarg. Rock Elm. Shrub; flood plain and roadsides; common; flowers green; March-April.

MORACEAE (Mulberry Family)

Maclura pomifera (Raf.) Schneid. Osage Orange. Tree; fencerows and roadsides; common; flowers green; May-June.

Morus alba L. White Mulberry. Tree; fencerows, railroads and waste areas; common; flowers green; April-May.

Morus rubra L. Red Mulberry. Tree; rich woods; infrequent; flowers green; April-May.

CANNABACEAE (Hemp Family)

Cannabis sativa L. Marijuana. Annual; roadsides, creek-banks and waste areas; abundant; flowers yellow-green; August-October.

Humulus lupulus L. Hops. Perennial vine; railroads, roadsides and waste areas; common; flowers greenish-white; August-May.

URTICACEAE (Nettle Family)

Boehmeria cylindrica (L.) Sw. Bog Hemp. Perennial herb; low wet woods; common; flowers green; June-October.

Laportea canadensis (L.) Sedd. Wood Nettle. Perennial herb; woodlands; abundant; flowers green; May-August.

Parietaria pensylvanica Muhl. Pellitory. Annual; wooded areas; common; flowers green; May-October

Pilea pumila (L.) Gray. Clearweed. Annual; low woods; common; flowers green; July-October.

Urtica dioica L. ssp. gracilis (Ait.) Sclander. Tall Nettle. Perennial herb; riverbottoms and disturbed areas; abundant; flowers green; May-October.

JUGLANDACEAE (Walnut Family)

Carya cordiformis (Wang.) K. Koch. Yellow-bud Hickory. Tree; rich woods; common; flowers green; April-May.

Carya ovata (Mill.) K. Koch. Shagbark Hickory. Tree; woods; common; flowers green; April-May.

Juglans nigra L. Black Walnut. Tree; woods; common; flowers green; April-May.

FAGACEAE (Beech Family)

Quercus borealis Michx. f. var. maxima (Marsh.) Ashe. Red Oak. Tree; woods; common; flowers greenish-yellow; April-May.

Quercus macrocarpa Michx. Bur Oak. Tree; woods; abundant; flowers greenish-yellow; April-May.

Quercus muehlenbergii Engelm. Chestnut Oak. Tree; dry woods and bluffs; common; flowers greenish-yellow; April-May.

Quercus palustris Muenchh. Pin Oak. Tree; escaped; infrequent; flowers greenish-yellow; April-May.

Quercus prinoides Willd. Dwarf Chestnut Oak. Shrub; dry woods; common; flowers greenish-yellow; April-May.

Quercus shumardii Buckl. Shumard's Oak. Tree; woods; common; flowers greenish-yellow; April-May.

Quercus velutina Lam. Black Oak. Tree; woods; abundant; flowers greenish-yellow; April-May.

BETULACEAE (Birch Family)

Corylus americana Walt. Hazelnut. Tree; borders of woods and thickets; common; flowers brown; February-April.

Ostrya virginiana (Mill.) K. Koch. Ironwood. Tree; wooded bluffs; common; flowers greenish-yellow.

PHYTOLACCEACEAE (Pokeweed Family)

Phytolacca americana L. Pokeweed. Perennial herb; waste areas, roadsides, fields, streams and disturbed areas; common; flowers white; May-October.

NYCTAGINACEAE (Four-o'clock Family)

Mirabilis nyctaginea (Michx.) MacM. Wild Four-o'clock. Perennial herb; roadsides, railroads and disturbed areas; common; flowers purple; May-July.

AIZOACEAE (Carpet Weed Family)

Mollugo verticillata L. Carpet Weed. Annual; sandy waste areas; infrequent; flowers white; May-September.

CARYOPHYLLACEAE (Pink Family)

Arenaria serpyllifolia L. Thyme-leaved Sandwort. Annual; disturbed areas; infrequent; flowers white; April-August.

Cerastium nutans Raf. Nodding Chickweed. Annual; rocky woods and pastures; common; flowers white; April-November.

Holosteum umbellatum L. Jagged Chickweed. Annual; railroads; infrequent; flowers white; March-May.

Lychnis alba Mill. White Campion. Perennial herb; prairies and railroads; common; flowers white; May-September.

Saponaria officinalis L. Bouncing Bet. Perennial herb; roadsides, railroads and sandy areas; common; flowers pink; June-October.

Silene antirrhina L. Sleepy Catchfly. Annual or biennial; railroads, roadsides and waste areas; common; flowers white; May-September.

Silene noctiflora L. Night-flowering Catchfly. Annual; waste areas, railroads and roadsides; common; flowers white; May-September.

Stellaria media (L.) Cyrille. Chickweed. Annual; lawns and disturbed areas; common; flowers white; January-December.

PORTULACACEAE (Purslane Family)

Claytonia virginica L. Spring Beauty. Perennial herb; woods; infrequent; flowers white; April-May.

Portulaca oleracea L. Purslane. Annual; cultivated and waste areas; common; flowers cream-colored; June-November.

CHENOPODIACEAE (Goosefoot Family)

Chenopodium album L. Lamb's Quarter's. Annual; waste areas; abundant; flowers green; May-October.

Chenopodium hybridum L. Maple-leaf Goosefoot. Annual; wooded bluffs; common; flowers green; June-October.

Chenopodium desiccatum A. Nels. Goosefoot. Annual; roadsides and waste areas; common; flowers green; June-October.

Chenopodium missouriense Aellen. Missouri Goosefoot. Annual; waste areas; common; flowers green; September-October.

Cycloloma atriplicifolium (Spreng.) Coolt. Winged Pigweed. Annual; sandy waste areas; common; flowers green; August-October.

Kockia scoparia (L.) Roth. Summer Cypress. Annual; waste areas; common; flowers green; July-October.

Salsola iberica Sennen & Pau. Russian Thistle. (S. kali L.) Waste areas; common; flowers green; July-October.

AMARANTHACEAE (Amaranth Family)

Amaranthus albus L. Tumbleweed. Annual; waste areas and along railroads; common; flowers green; July-October.

Amaranthus graecizans L. Spreading Pigweed. Annual; waste areas, roadsides and railroads; common; flowers green; July-October.

Amaranthus retroflexus L. Redroot Pigweed. Annual; waste areas, roadsides and railroads; common; flowers green; July-October.

Amaranthus spinosus L. Spiny Pigweed. Annual; waste areas; infrequent; flowers green; June-October.

Amaranthus tamariscinus Nutt. Water Hemp. [Acnida tamariscina (Nutt.) Wood.] Annual; streams, sloughs and waste areas; common; flowers green; July-October.

Froelichia gracilis (Hook.) Moq. Cottonweed. Annual; railroad; south of Denton; infrequent; flowers white; May-September.

POLYGONACEAE (Buckwheat Family)

Polygonum arenastrum Jord ex. Bor. Knotweed. (P. aviculare L.) Annual; disturbed areas, fields and roadsides; abundant; flowers white; May-November.

Polygonum coccineum Muhl. Water Smartweed. Perennial herb; wet ditches and marshy areas; abundant; flowers pinkish-red; June-October.

Polygonum convolvulus L. Black Bindweed. Annual; roadsides and waste areas; common; flowers greenish-white; May-November.

Polygonum hydropiper L. Water Pepper. Annual; wet areas; common; flowers greenish-white; May-November.

Polygonum lapathifolium L. Smartweed. Annual; wet areas and disturbed areas; abundant; flowers white to pink; July-October.

Polygonum pensylvanicum L. Pinkweed Annual; marshy areas and roadside ditches; common; flowers white to pink; June-October.

Polygonum persicaria L. Lady's Thumb. Annual; wet areas and sloughs; common; flowers pinkish-white; May-October.

Polygonum punctatum Ell. Water Smartweed. Perennial herb; marshy areas, sloughs and roadsides; common; flowers greenish-white; July-October.

Polygonum scandens L. False Buckwheat. Perennial herb; roadsides and wet areas; common; flowers green; July-November.

Polygonum virginianum L. Virginia Knotweed. Perennial herb; woods; common; flowers white; July-November.

Rumex acetosella L. Field Sorrel. Perennial herb; railroad; south of Denton; common; flowers reddish-brown; May-September.

Rumex altissimus Wood. Smooth Dock. Perennial herb; pastures, roadsides and waste places; common; flowers green; April-May.

Rumex crispus L. Curly Dock. Perennial herb; roadsides, pastures, around ponds and wet areas; abundant; flowers green; April-May.

Rumex maritimus L. var. fueginus (Phil) Dusen. Golden Dock. Perennial herb; sandbars; along Missouri River; common; flowers green; April-May.

Rumex mexicanus Meisn. Perennial herb; roadsides, wet places and waste places; common; flowers green; April-May.

Rumex patienta L. Patience Dock. Perennial herb; waste ground; common; flowers green; April-June.

Rumex stenophyllus Ledeb. Perennial herb; oxbow lake; infrequent; flowers green; May-June.

Rumex verticillatus L. Swamp Dock. Perennial herb; oxbow lake; common; flowers green; April-June.

HYPERICACEAE (St. John's-wort Family)

Hypericum perforatum L. Common St. John's-wort. Perennial; roadsides; infrequent; flowers yellow; May-September.

Hypericum punctatum L. St. John's-wort. Perennial herb; alluvial thicket; infrequent; flowers yellow; June-September.

Hypericum pyramidatum Ait. Great St. John's-wort. Perennial herb; wooded slopes; infrequent; flowers yellow; June-September.

TILIACEAE (Linden Family)

Tilia americana L. Basswood. Tree; rich woods and slopes; common; flowers greenish-white; June.

MALVACEAE (Mallow Family)

Abutilon theophrasti Medic. Velvet Leaf. Annual; cultivated fields, roadsides and waste areas; common; flowers pale orange; June-October.

Callirhoe involucrata (T. & G.) Gray. Poppy Mallow. Perennial herb; waste areas; infrequent; flowers scarlet; May-August.

Hibiscus militaris Cav. Rose Mallow. Perennial herb; oxbow lake; common; flowers pink; July-October.

Hibiscus trionum L. Flower of the Hour. Annual; waste places, roadsides and along railroads; common; flowers yellow and purple; June-August.

Malva neglecta Wallr. Common Mallow. Annual; fields, railroads, roadsides, lawns and waste areas; common; flowers white; April-October.

Sida spinosa L. Prickly Sida. Annual; fields, disturbed areas, railroads and roadsides; common; flowers orange; June-October.

VIOLACEAE (Violet Family)

Viola missouriensis Greene. Missouri Violet. Perennial herb; ditches, low woods and ravines; flowers violet; March-May.

Viola pedatifida G. Don. Prairie Violet. Perennial herb; prairies and disturbed sandy areas; common; flowers purple; April-May.

Viola pubescens Ait. Downy Yellow Violet. Perennial herb; wooded areas; common; flowers yellow; April-May.

Viola rafinesquii Greene. Johnny-jump-up. (V. kitaibeliana R. & S.) Annual; railroads, roadsides and lawns; common; flowers blue; March-May.

CUCURBITACEAE (Gourd Family)

Echinocystis lobata (Michx.) T. & G. Wild Cucumber Vine. Annual; rich woods, base of bluffs and ravines; common; flowers yellow-green; June-October.

Sicyos angulatus L. Bur Cucumber. Annual; low woods and railroads; common; flowers yellow; July-October.

SALICACEAE (Willow Family)

Populus alba L. White Poplar. Tree; roadsides and fence-rows; infrequent; flowers yellow-green; March-May.

Populus deltoides Marsh. var. occidentalis Rydb. Plains Cottonwood. Tree; roadsides, flood plains and wet areas; abundant; flowers reddish; March-May.

Salix amygdaloides Anderss. Peach-leaved Willow. Tree; low wet areas; common; flowers green; April-June.

Salix caroliniana Michx. Ward's Willow. Tree; sandbars and mudflats of the Missouri River; common; flowers green; April.

Salix eriocephala Michx. Missouri Willow. Shrub; sandy areas along the Missouri River and its flood plain; common; flowers green; April-May.

Salix exigua Nutt. ssp. interior (Rowlee) Cronq. var. interior Sandbar Willow. Shrub; sandbars, margins of ponds and roadsides; abundant; flowers green; May-June.

Salix humilis Marsh. Prairie Willow. Shrub; prairie; infrequent; flowers green; March-May.

Salix nigra Marsh. Black Willow. Tree; roadsides and wet places; abundant; flowers green; April-May.

BRASSICACEAE (Mustard Family)

Alliaria officinalis Andrz. Garlic Mustard. Biennial; rocky woods; infrequent; flowers white; April-June.

Arabis canadensis L. Sickle-pod. Biennial or perennial herb; rocky woods; infrequent; flowers white; April-June.

Barbarea vulgaris R. Br. Yellow Rocket. Biennial; roadsides, waste and disturbed areas; abundant; flowers yellow; April-June.

Brassica nigra (L.) Koch. Black Mustard. Annual or biennial; roadsides and sandbars; common; flowers yellow; April-November.

Camelina microcarpa Andrz. Small-seeded False Flax. Annual; roadsides; infrequent; flowers cream-colored; April-August.

Capsella bursa-pastoris (L.) Medic. Shephard's Purse. Annual; waste areas; abundant; flowers white; March-May.

Cardamine bulbosa (Schreb.) B.S.P. Bitter Cress. Perennial herb; margins of springs; infrequent; flowers white; April-June.

Cardaria draba (L.) Desv. Hoary Cress. Perennial herb; roadsides and railroads; infrequent; flowers white; April-June.

Chorispora tenella (Willd.) D.C. Gilliflower. Perennial herb; railroads and sandy waste areas; infrequent; flowers lavender-colored; April-June.

Dentaria laciniata Muhl. Toothwort. Perennial herb; woods; common; flowers white; March-April.

Descurainia pinnata (Walt.) Britt. var. brachycarpa (Richards) Fern. Tansey Mustard. Annual or biennial; roadsides and disturbed areas; common; flowers yellow; April-May.

Draba reptans (Lam.) Fern. Whitlow Grass. Annual or biennial; roadsides and waste areas; common; flowers white; March-May.

Erysimum repandum L. Wall-flower. Annual; roadsides and disturbed areas; common; flowers yellow; April-June.

Hesperis matronalis L. Dame's Rocket. Biennial; roadsides and waste; common; flowers purple; May-June.

Lepidium campestre (L.) R. Br. Field Cress. Annual or biennial; fields, waste and roadsides; common; flowers white; April-June.

Lepidium densiflorum Schrad. Pepper Cress. Annual or biennial; roadsides, pastures and waste areas; common; flowers inconspicuous, white to cream-colored; April-November.

Lepidium virginicum L. Pepper Grass. Annual or biennial; roadsides, pastures and waste areas; common; flowers white; May-October.

Nasturtium officinale R. Br. Water Cress. Perennial herb; spring-fed pasture; Bottiger's farm; common; flowers white; April-October.

Rorippa palustris (L.) Bess. ssp. glabra (Schultz)
Stuckey var. fernaldiana (Butt. & Abbe.) Stuckey
Marsh Yellow Cress. [R. islandica (Oeder) Barbas]
Annual or biennial; mudflats and waste; Missouri
River flood plain; common; flowers yellow; June-
October.

Rorippa sessiflora (Nutt.) Hitchc. Spreading Yellow Cress.
Annual or biennial; mudflats and waste; Missouri
River flood plain; common; flowers yellow; April-
October.

Rorippa sinuata (Nutt.) Hitchc. Spreading Yellow Cress.
Perennial herb; sandbars and mudflats; infrequent;
flowers yellow; April-July.

Sisymbrium altissimum L. Tumble Mustard. Annual; roadsides,
railroads and sandy fields; common; flowers yellow;
May-August.

Sisymbrium loesellii L. Tumble Mustard. Annual; road-
sides, fields and waste areas; infrequent; flowers
yellow; May-October.

Sisymbrium officinale (L.) Scop. Hedge Mustard. Annual;
roadsides and waste areas; common; flowers yellow;
May-October.

Thlaspi arvense L. Field Penny Cress. Annual; roadsides and disturbed areas; abundant; flowers white; April-May.

EBENACEAE (Ebony Family)

Diospyrus virginiana L. Persimmon. Tree; wooded areas; common; flowers yellow; May-June.

PRIMULACEAE (Primrose Family)

Androsace occidentalis Pursh. Rock Jasmine. Annual; railroads and waste areas; infrequent; flowers white; March-May.

Lysimachia ciliata L. Fringed Loosestrife. Perennial herb; wet ditches; infrequent; flowers yellow; May-July.

CRASSULACEAE (Stonecrop Family)

Penthorum sedoides L. Ditch Stonecrop. Perennial herb; sandbars and low wet areas; common; flowers yellowish-green; July-October.

Sedum pulchellum Michx. Widow's Cross. Annual or biennial; rocky waste areas; escaped; flowers yellow; May-July.

SAXIFRAGACEAE (Saxifrage Family)

Heuchera hirsuticaulis (Wheel.) Rydb. Alum Root. (H. richardsonii R. Br. or H. americana L.) Perennial herb; dry prairies; Denton quarry; common; flowers yellowish-green; April-May.

Ribes missouriense Nutt. Missouri Gooseberry. Perennial shrub; rocky woods; common; flowers yellowish-green; April-May.

ROSACEAE (Rose Family)

Agrimonia parviflora Ait. Agrimony. Perennial herb; wet prairie; Bottiger's farm; common; flowers yellow; August-September.

Agrimonia pubescens Wallr. Downy Agrimony. Perennial herb; woods; infrequent; flowers yellow; August-September.

Amelanchier arborea (Michx.) Fern. Juneberry. Tree; edge of bluffs and cliffs; infrequent; flowers white; April.

Crataegus crus-galli L. Hawthorne. Tree; fencerows, roadsides and thickets; infrequent; flowers pink; May-July.

Crataegus mollis (T. & G.) Scheele. Hawthorne. Tree; wooded areas and fencerows; common; flowers white; April.

Fragaria virginiana Duchesne var. illinoensis (Prince) Gray. Wild Strawberry. Perennial herb; roadsides, railroads, prairies and pastures; common; flowers white; April-May.

Geum canadense Jacq. Avens. Perennial herb; wooded areas; common; flowers white; May-October.

Potentilla norvegica L. Cinquefoil. Annual or biennial; waste areas, roadsides, railroads and open woods; common; flowers yellow; May-October.

Potentilla paradoxa Nutt. Bushy Cinquefoil. Annual or biennial; alluvial areas; Missouri River flood plain; flowers yellow; May-September.

Potentilla recta L. Rough-fruited Cinquefoil. Perennial herb; roadsides and prairies; common; flowers yellow; May-August.

Prunus americana Marsh. Wild Plum. Shrub; thickets, fencerows, roadsides and woods; common; flowers white; April.

Prunus mexicana S. Wats. Big Tree Plum. Shrub; thickets, roadsides, fencerows and woods; common; flowers white; April.

Prunus serotina Khrh. Black Cherry. Tree; woods, roadsides and fencerows; common; flowers white; April-June.

Prunus virginiana L. Choke Cherry. Tree; roadsides, fencerows and woods; infrequent; flowers white; April-June.

Pyrus communus L. Pear. Tree; fencerows and pastures; escaped; infrequent; flowers white; April-May.

Pyrus ioensis (Wood) Bailey. Wild Crab. Tree; woods; infrequent; flowers pink; April-May.

Pyrus malus L. Apple. Tree; roadsides, fencerows and waste areas; escaped; flowers pinkish-white; April-May.

Rosa carolina L. Carolina Rose. Shrub; prairies, pastures and roadsides; common; flowers pink; May-June.

Rosa multiflora Thunb. Japanese Rose. Sprawling shrub; roadsides, fencerows and pastures; common; flowers white; May-June.

Rosa setigera Michx. Prairie Rose. Shrub; roadsides, prairies and low areas; common; flowers pink to white; May-July.

Rubus allegheniensis Porter. Highbush Blackberry. Sprawling prickly shrub; railroads, roadsides and pastures; common; flowers white; May-June.

Rubus flagellaris Willd. Dewberry. Sprawling prickly shrub; rocky woods and thickets; common; flowers white; May.

Rubus occidentalis L. Black Raspberry. Sprawling prickly shrub; railroads, thickets and pastures; common; flowers white; May-June.

Rubus ostryifolius Rydb. Highbush Blackberry. Sprawling prickly shrub; railroads, fencerows and pastures; common; flowers white; May-June.

Rubus pensylvanicus Poir. Highbush Blackberry. Sprawling prickly shrub; open woods; common; flowers white; May.

FABACEAE (Bean Family)

Desmanthus illinoensis (Michx.) MacM. Illinois Bundle Flower. Shrub; roadsides, wooded slopes and open woods; common; flowers white; June-August.

Schrunkia nuttallii (DC.) Standl. Sensitive Brier. (S. uncinata Willd.) Perennial herb; roadsides and railroads; infrequent; flowers pink; May-September.

Cassia fasciculata Michx. Partridge Pea. Annual; roadsides, fallowed fields and railroads; common; flowers yellow; June-October.

Cercis canadensis L. Redbud. Tree; woods; common; flowers lavender-colored; April.

Gleditsia triacanthos L. Honey Locust. Tree; along streams, roadsides, railroads and pastures; common; flowers green; May-June.

Gymnocladus dioica (L.) K. Koch. Kentucky Coffee Tree. Tree; rich woods and base of bluffs; common; flowers green; May-June.

Amorpha canescens Pursh. Lead Plant. Shrub; prairies; common; flower purple; May-August.

Amorpha fruticosa L. False Indigo. Shrub; wet areas; common; flowers purple; May-June.

Amphicarpa bracteata (L.) Fern. Hog Peanut. Perennial herb; base of bluffs and rich woods; infrequent; flowers lavender-colored; August-September.

Aplos americana Medic. Groundnut. Perennial herb; wet areas; infrequent; flowers brownish-purple; June-September.

Astragalus canadensis L. Rattle Weed. Perennial herb; pastures and open lowlands; infrequent; flowers cream-colored; May-August.

Astragalus missouriensis Nutt. Low Milk Vetch. Perennial herb; top of loess mounds; infrequent; flowers lavender-colored; April-May.

Baptisia leucophaea Nutt. Long-bracted Wild Indigo. Perennial herb; prairies; Kleppe's farm; common; flowers cream-colored; April-June.

Coronilla varia L. Crown Vetch. Perennial herb; roadsides; common; flowers rose-colored; May-August.

Crotalaria sagittalis L. Rattlebox. Annual; prairies; infrequent; flowers yellow; May-September.

Dalea leporina (Ait.) Bullock. Perennial herb; loess mounds; infrequent; flowers white; July-September.

Desmodium canadense (L.) DC. Tick Trefoil. Perennial herb; prairies and spring fed areas; common; flowers pink; July-September.

Desmodium canescens (L.) DC. Beggar's Lice. Perennial herb; prairies and roadsides; common; flowers pink; July-September.

Desmodium cuspidatum (Muhl.) Loud. Longleaf Tickclover. Perennial herb; woods and wooded ravines; infrequent; flowers pink; July-September.

Desmodium glutinosum (Muhl.) Wood. Large-flowered Tickclover. Perennial herb; wooded areas; common; flowers pink; June-August.

Desmodium illinoense Gray. Illinois Tickclover. Perennial herb; prairie and railroads; common; flowers pink; June-September.

Desmodium paniculatum (L.) DC. var. paniculatum. Perennial herb; roadsides, wet areas and woods; common; flowers pink; July-September.

Lespedeza capitata Michx. Bush Clover. Perennial herb; prairies and loess mounds; common; flowers cream-colored; July-October.

Lespedeza cuneata (Dumont) G. Don. Sericea Lespedeza. Perennial herb; roadsides and dry prairies; infrequent; flowers cream-colored; August-October.

Lespedeza stipulacea Maxim. Korean Clover. Annual; roadsides, fields and pastures; common; flowers pink; July-October.

Medicago lupulina L. Black Medic. Annual; lawns, fields, waste areas, roadsides and railroads; common; flowers yellow; February-December.

Medicago sativa L. Alfalfa. Perennial herb; roadsides, waste areas and fields; common; flowers blue; May-September.

Melilotus alba Desr. White Sweet Clover. Annual or biennial; roadsides, railroads and fields; common; flowers white; May-October.

Melilotus officinalis (L.) Lam. Yellow Sweet Clover. Annual or biennial; roadsides, railroads and waste areas; abundant; flowers yellow; May-October.

Petalostemon candidum Michx. White Prairie Clover. Perennial herb; prairies; common; flowers white; May-July.

Petalostemon purpureum (Vent.) Rydb. Purple Prairie Clover. Perennial herb; prairies and exposed hills; common; flowers lavender; May-September.

Psoralea tenuiflora Pursh. var. floribunda (Nutt.) Rydb. Scurfy Pea. Perennial herb; prairies; common; flowers blue; May-September.

Pueraria lobata (Willd.) Ohw. Kudzu Vine. Perennial vine; roadsides; two populations along Hwy 7; flowers lavender-colored; August-September.

Robinia pseudoacacia L. Black Locust. Tree; roadsides, along streams and thickets; common; flowers white; May-June.

Strophostyles helvola (L.) Ell. Wild Bean. Annual; sandy areas and alluvial ground; infrequent; flowers pink; June-October.

Trifolium pratense L. Red Clover. Perennial herb; fields, meadows, waste areas, roadsides and railroads; common; flowers lavender-colored; May-September.

Trifolium repens L. White Clover. Perennial herb; lawns, fields, pastures, roadsides and railroads; abundant; flowers white; May-October.

Vicia americana Muhl. var. americana Vetch. Perennial vine; prairies; common; flowers blue; May-July.

Vicia villosa Roth. Hairy Vetch. Perennial vine; roadsides; infrequent; flowers blue; April-October.

LYTHRACEAE (Loosestrife Family)

Ammannia coccinea Rottb. Toothcup. Annual; wet places; common; flowers purple; June-October.

Lythrum dacotanum Nierland. Winged Loosestrife. (L. alatum Pursh.) Perennial herb; wet places; common; flowers violet; June-September.

ONAGRACEAE (Evening Primrose Family)

Circaea lutetiana L. ssp. canadensis (L.) Asch. and Magnus. Enchanter's Nightshade. [C. quadrifolia (Maxim.) Franch. & Sav.] Perennial herb; rich woods; infrequent; flowers white; June-August.

Epilobium coloratum Biehler. Willow Herb. Perennial herb; wet swampy or boggy areas; infrequent; flowers white; July-October.

Epilobium leptophyllum Raf. Willow Herb. Perennial herb; boggy area; Bottiger's farm; infrequent; flowers white; July-September.

Gaura longiflora Spach. Biennial Gaura. (G. biennis L.) Biennial; roadsides, railroads, fields and borders of woods; common; flowers lavender-white; June-October.

Gaura parviflora Dougl. Velvety Gaura. Biennial; waste areas; infrequent; flowers white-lavender; June-October.

Ludwigia alternifolia L. var. pubescens Palm & Steyermark. Seedbox. Perennial herb; wet boggy prairie; Bottiger's farm; common; flowers yellow; June-August.

Oenothera biennis L. ssp. centralis Munz. Evening Primrose. Biennial; roadsides, railroads, waste areas and disturbed areas; common; flowers yellow; June-October.

Oenothera laciniata Hill. Cut-leaved Evening Primrose. Annual; sandy areas, waste and alluvial soils; common; flowers yellow; May-October.

Oenothera speciosa Nutt. White Evening Primrose. Perennial herb; roadsides; infrequent; flowers white; May-July.

Oenothera strigosa (Rydb.) Mack & Bush ssp. canovirens (Steele) Muntz. Perennial herb; prairies and waste areas; flowers yellow; June-October.

ELAEAGNACEAE (Oleaster Family)

Elaeagnus angustifolia L. Russian Olive. Tree; roadsides and fencerows; common; flowers yellowish-green; May-July.

CORNACEAE (Dogwood Family)

Cornus amomum Mill. ssp. obliqua (Raf.) J. S. Wilson. Pale Dogwood. Tree; base of bluffs and along river; Missouri River flood plain; common; flowers cream-colored; May-June.

Cornus drummondii Mey. Rough-leaved Dogwood. Tree; wet areas, fence rows and roadsides; abundant; flowers cream-colored; May-June.

SANTALACEAE (Sandalwood Family)

Comandra umbellata (L.) Nutt. ssp. umbellata Bastard Toadflax. Perennial herb; prairies; Kleppe's farm; infrequent; flowers white; May-July.

CELASTRACEAE (Staff-tree Family)

Celastrus scandens L. American Bittersweet. Perennial vine; roadsides and fencerows; common; flowers green; May-June.

Euonymus atropurpureus Jacq. Wahoo. Shrub; woodlands; infrequent; flowers purple; April-June.

EUPHORBIACEAE (Spurge Family)

Acalypha rhomboidea Raf. Three-seeded Mercury. Annual; wooded areas, fencerows, roadsides and prairies; common; flowers green; July-October.

Acalypha virginica L. Virginia Three-seeded Mercury. Annual; pastures, wooded areas and prairies; common; flowers green; July-October.

Croton monanthogynus Michx. Prairie Tea. Annual; waste places, roadsides and pastures; common; flowers tan; July-September.

Euphorbia corollata L. Flowering Spurge. Perennial herb; prairies, roadsides and disturbed areas; common; flowers white; May-October.

Euphorbia cyathophora Murr. Fire-on-the-mountain. (E. heterophylla L.) Annual; open woods; infrequent; flowers green; July-October.

Euphorbia dentata Michx. Toothed Spurge. Annual; prairies, roadsides and along railroads; common; flowers green; July-October.

Euphorbia esula L. Leafy Spurge. Perennial herb; pastures and fields; infrequent; flowers yellowish-green; May-September.

Euphorbia marginata Pursh. Snow-on-the-mountain. Annual; railroads, roadsides, waste areas and loess hills; common; flowers whitish-green; June-October.

Euphorbia maculata L. Prairie Spurge. Annual; roadsides, pastures and disturbed areas; infrequent; flowers green often turning red; May-October.

Euphorbia nutans Lag. Nodding Spurge (E. maculata L. sensu Wheeler) Annual; roadsides, pastures and disturbed areas; common; flowers green; May-October.

Euphorbia prostrata Ait. Prostrate Spurge. (E. chamaesyce L.) Annual; disturbed areas; common; flowers green; June-October.

Euphorbia serpens H.B.K. Spreading Spurge. Annual; roadsides, disturbed areas and sidewalk cracks; common; flowers green; May-October.

RHAMNACEAE (Buckthorn Family)

Ceanothus americanus L. var. pitcheri T. & G. New Jersey Tea. Shrub; prairies; common; flowers white; May-August.

Ceanothus herbaceus Raf. var. pubescens (T. & G.) Shinners. Redroot. (C. ovatus Desf.) Shrub; prairies; common; flowers white; April-June.

VITACEAE (Grape Family)

Ampelopsis cordata Michx. Raccoon Grape. Perennial vine; wooded areas; common; flowers yellow-green; May-July.

Parthenocissus quinquefolia (L.) Planch. Virginia Creeper. Perennial vine; fencerows, woods, bluffs and valleys; abundant; flowers yellow-green; May-August.

Parthenocissus vitacea (Knerr.) Hitchc. Woodbine. Perennial vine; wooded bluffs, ravines and roadsides; common; flowers yellow-green; May-July.

Vitis cinerea Engelm. Grayback Grape. Perennial vine; woods, alluvial soils and fencerows; common; flowers yellow-green; May-July.

Vitis riparia Michx. Riverbank Grape. Perennial vine; alluvial soils, fencerows and thickets; common; flowers green-white; May-June.

STAPHYLEACEAE (Bladdernut Family)

Staphylea trifolia L. American Bladdernut. Shrub; woodlands; common; flowers cream-colored; April-May.

HIPPOCASTINACEAE (Horse Chesnut Family)

Aesculus glabra Willd. var. arguta (Buckl.) Robins. Ohio Buckeye. Tree; low woods and flood plains; common; flowers creamy yellow; April-May.

ACERACEAE (Maple Family)

Acer negundo L. Box Elder. Tree or shrub; woods, roadsides, ditches and wet areas; common; flowers green; April-May.

Acer saccharinum L. Silver Maple. Tree; low wet areas; abundant; flowers reddish-green; February-April.

Acer saccharum Marsh. Sugar Maple. Tree; wooded bluffs; common; flowers reddish-green; April-May.

ANACARDIACEAE (Cashew Family)

Rhus copallina L. Winged Sumac. Shrub; fencerows and edge of woods; common; flowers yellow; July.

Rhus glabra L. Smooth Sumac. Shrub; roadsides, railroads, fencerows and disturbed areas; abundant; flowers yellow; May-June.

Toxicodendron radicans (L.) O. Ktze. ssp. negundo (Greene) Gillis. Poison Ivy. Woody vine or shrub; woodlands, fencerows, thickets, pastures and creekbanks; abundant; flowers green; May-June.

SIMAROUBACEAE (Quassia Family)

Ailanthus altissima (Mill.) Swingle. Tree of Heaven. Tree; roadsides, alleys and fencerows; common; flowers yellow-green; May-June.

RUTACEAE (Rue Family)

Zanthoxylum americanum Mill. Prickly Ash. Shrub; rocky hillsides; common; flowers yellow-green; April.

ZYGOPHYLLACEAE (Caltrop Family)

Tribulus terrestris L. Puncture Vine. Annual; waste and disturbed areas; common; flowers yellow; June-September.

OXALIDACEAE (Wood Sorrell Family)

Oxalis dillenii Jacq. Yellow Wood Sorrel. Perennial herb; omnipresent; common; flowers yellow; May-November.

Oxalis stricta L. Sheep Sorrel. Annual; omnipresent; common; flowers yellow; May-October.

Oxalis violacea L. Violet Wood Sorrel. Perennial herb; fields, woods and roadsides; common; flowers lavender-colored; April-July.

GERANIACEAE (Geranium Family)

Geranium carolinianum L. Cranesbill. Annual; roadsides, railroads and waste areas; common; flowers white to lavender-colored; May-July.

BALSAMINACEAE (Touch-me-not Family)

Impatiens biflora Walt. Spotted Touch-me-not. (I. capensis Meerb.) Annual; base of bluffs, along streams and marshy areas; common; flowers orange; May-October.

Impatiens pallida Nutt. Pale Touch-me-not. Annual; wet woods; base of bluffs and wet areas; common; flowers yellow; May-October.

LINACEAE (Flax Family)

Linum sulcatum Ridd. Yellow Flax. Annual; prairie; Kleppe's farm; common; flowers yellow; May-September.

APIACEAE (Parsley Family)

Chaerophyllum procumbens (L.) Crantz. Wild Chervil. Annual; wooded areas and roadsides; common; flowers white; April-June.

Chaerophyllum tainturieri Hook. Chervil. Annual; wooded areas and roadsides; common; flowers white; March-May.

Cicuta maculata L. Water Hemlock. Biennial; marshy areas, sloughs and wet areas around railroads; common; flowers white; May-September.

Conium maculatum L. Poison Hemlock. Biennial; pastures, roadsides and railroads; common; flowers white; May-August.

Cryptotaenia canadensis (L.) DC. Honewort. Perennial herb; wooded areas; common; flowers white; May-August.

Daucus carota L. Wild Carrot. Biennial; roadsides, fields, pastures, waste and disturbed areas; abundant; flowers white; May-October.

Eryngium yuccifolium Michx. Rattlesnake Master. Perennial herb; prairies; Kleppe's farm; common; flowers white; July-August.

Osmorrhiza claytoni (Michx.) C.B. Clarke. Sweet Cicely. Perennial herb; rich woods and ravines; common; flowers white; April-May.

Osmorrhiza longistylis (Torr.) DC. var. villicaulis Fern. Anise Root. Perennial herb; rich woods and ravines; common; flowers white; April-June.

Pastinaca sativa L. Parsnip. Biennial; railroads, roadsides and waste areas; common; flowers yellow; May-October.

Polytaenia nuttallii DC. Prairie Parsley. Perennial herb; pastures and prairies; infrequent; flowers yellow; April-June.

Sanicula canadensis L. Black Snakeroot. Biennial; woodlands; common; flowers green; May-July.

Sanicula gregaria Bickn. Black Snakeroot. Biennial; woodlands; common; flowers green; April-June.

Spermolepsis inermis (Nutt.) Robins. Scale-seed. Annual; sandy fields and railroads; infrequent; flowers white; May-June.

Torilis arvensis (Huds.) Link. Hedge Parsley. [T. japonica (Hoult.) DC.] Annual; roadsides and waste areas; common; flowers white; June-August.

Zizia aurea (L.) Koch. Golden Alexander. Perennial herb; moist prairies, roadsides and open woods; common; flowers yellow; April-June.

GENTIANACEAE (Gentian Family)

Gentiana puberulenta Pringle. Downy Gentian. (G. puberula Michx.) Perennial herb; prairies; infrequent; flowers blue-violet; September-November.

APOCYNACEAE (Dogbane Family)

Apocynum cannabinum L. Indian Hemp. Perennial herb; pastures, fields, roadsides and railroads; abundant; flowers white; May-August.

Apocynum sibiricum Jacq. Indian Hemp. Perennial herb; alluvial soils, roadsides and waste areas; common; flowers white; June-August.

ASCLEPIADACEAE (Milkweed Family)

Asclepias incarnata L. Swamp Milkweed. Perennial herb; wet areas; abundant; flowers pink; June-August.

Asclepias purpurascens L. Purple Milkweed. Perennial herb; rocky woods; infrequent; flowers purple; May-July.

Asclepias syriaca L. Common Milkweed. Perennial herb; roadsides, waste areas and railroads; abundant; flowers lavender-colored; May-August.

Asclepias tuberosa L. ssp. interior Woods. Butterfly Milkweed. Perennial herb; prairies; common; flowers orange; May-September.

Asclepias verticillata L. Whorled Milkweed. Perennial herb; prairies and roadsides; abundant; flowers white; May-September.

Asclepias viridis Walt. Spider Milkweed. Perennial herb; roadsides and disturbed areas; infrequent; flowers green; May-June.

Cynanchum laeve (Michx.) Pers. Angle-pod. Perennial vine; fencerows, edges of cultivated fields and disturbed areas; abundant; flowers white; July-September.

SOLANACEAE (Nightshade Family)

Datura stramonium L. Jimsonweed. Annual; waste areas; common; flowers white; May-October.

Lycium halimifolium Mill. Matrimony Vine. Sprawling shrub; roadside; 1/2 mile east of Troy; flowers greenish-purple; May-September.

Lycopersicon esculentum Mill. Tomato. Annual; waste areas; infrequent; flowers yellow; June-September.

Physalis heterphylla Nees. Ground Cherry. Perennial herb; waste areas; infrequent; flowers yellow; May-August.

Physalis pubescens L. var. integrifolia (Dunal) Waterfall. Downy Ground Cherry. Annual; sandbars; infrequent; flowers yellow; May-November.

Physalis virginiana Mill. var. sonorensis (Torr.) Waterfall. Perennial herb; roadsides, railroads and low woods; common; flowers yellow; May-September.

Solanum americanum Mill. Black Nightshade. Annual; side of bluffs, waste and disturbed areas; common; flowers white; May-November.

Solanum carolinense L. Horse Nettle. Perennial herb; disturbed areas, fields and roadsides; common; flowers white to lavender-colored; May-October.

Solanum rostratum Dun. Buffalo Bur. Annual; pastures, roadsides and waste areas; common; flowers yellow; May-October.

CONVOLVULACEAE (Morning Glory Family)

Convolvulus arvensis L. Field Bindweed. Perennial vine; fields, roadsides, waste and disturbed areas; abundant; flowers white; May-September.

Convolvulus sepium L. Hedge Bindweed. Perennial vine; fields, roadsides and disturbed areas; common; flowers white; May-September.

Ipomea hederacea (L.) Jacq. Blue Morning Glory. Annual; waste areas; common; flowers blue-scarlet; July-October.

Ipomea purpurea (L.) Roth. Common Morning Glory. Annual; fields and waste areas; common; flowers purple; July-October.

CUSCUTACEAE (Dodder Family)

Cuscuta glomerata Choisy. Cluster Dodder. Annual parasitic vine; pastures, fields and wet areas; common; flowers cream-colored; July-September.

POLEMONIACEAE (Phlox Family)

Phlox divaricata L. ssp. laphami (Wood) Wherry. Blue Phlox. Perennial herb; woods; common; flowers blue; April-June.

Phlox paniculata L. Perennial Phlox. Perennial herb; woods; common; flowers white; July-October.

Phlox pilosa L. ssp. fulgida Wherry. Phlox. Perennial herb; prairies; Kleppe's farm; common; flowers pink-colored; April-July.

Polemonium reptans L. Jacob's Ladder. Perennial herb; woods; common; flowers blue; April-June.

HYDROPHYLLACEAE (Waterleaf Family)

Ellisia nyctelea L. Waterpod. Annual; wooded areas, roadsides and waste areas; common; flowers white; April-June.

Hydrophyllum appendiculatum Michx. Woolen Breeches. Perennial herb; wooded areas; common; flowers pinkish-white; April-June.

BORAGINACEAE (Borage Family)

Hackelia virginiana (L.) I. M. Johnst. Beggar's Lice. Biennial; woodlands; infrequent; flowers white; June-September.

Lithospermum arvense L. Corn Gromwell. Annual; disturbed areas, lawns, waste areas and prairies; common; flowers white; April-June.

Lithospermum canescens (Michx.) Lehm. Orange Puccoon. Perennial herb; prairies and exposed loess hills; infrequent; flowers yellowish-orange; April-June.

Lithospermum incisum Lehm. Yellow Puccoon. Perennial herb; prairies, exposed loess hills and pastures; flowers yellow; April-June.

VERBENECEAE (Vervain Family)

Phyla lanceolata (Michx.) Greene. Fog Fruit. (Lippia lanceolata Michx.) Perennial herb; wet places; common; flowers whitish-pink; May-September.

Verbena bracteata Lag. and Radr. Prostrate Vervain. Biennial; sandy areas and cracks in sidewalks; common; flowers violet-colored; April-October.

Verbena canadensis (L.) Britt. Rose Vervain. Perennial herb; rocky woods; common; flowers pinkish-purple; March-November.

Verbena hastata L. Blue Vervain. Perennial herb; wet areas; common; flowers blue-violet; June-October.

Verbena stricta Vent. Hoary Vervain. Perennial herb; roadsides, railroads, waste and disturbed areas; abundant; flowers violet; June-September.

Verbena urticifolia L. White Vervain. Perennial herb; wet areas and wooded ravines; common; flowers white; June-October.

PHRYMACEAE (Lopseed Family)

Phryma leptostachya L. Lopseed. Perennial herb; wooded areas; infrequent; flowers lavender-colored; June-September.

LAMIACEAE (Mint Family)

Agastache nepetoides (L.) O. Ktze. Catnip Giant Hyssop. Perennial herb; alluvial woods; common; flowers cream-colored; July-September.

Glechoma hederacea L. Ground Ivy. Annual; lawns, roadsides and waste areas; common; flowers blue-violet; April-July.

Hedeoma hispida Pursh. Mock Pennyroyal. Annual; prairies, roadsides and exposed hills; common; flowers blue; May-July.

Lamium amplexicaule L. Henbit. Annual; waste, lawns, roadsides and railroads; abundant; flowers violet; February-November.

Leonurus cardiaca L. Motherwort. Perennial herb; around old dwellings, roadsides, waste areas and railroads; common; flowers white; May-August.

Lycopus americanus Muhl. Water Horehound. Annual; wet areas; abundant; flowers white; June-October.

Mentha arvense L. Field Mint. Perennial herb; wet areas; common; flowers white to lavender-colored; July-September.

Monarda fistulosa L. var. fistulosa Wild Bergamot. Perennial herb; prairies, pastures and roadsides; common; flowers lavender-colored; May-August.

Nepeta cataria L. Catnip. Perennial herb; pastures, fencerows and waste areas; common; flowers white; June-September.

Perilla frutescens (L.) Britt. Beef-steak Plant. Annual; spring branches and low wooded areas; common; flowers white; August-October.

Physostegia virginiana (L.) Benth. False Dragonhead. Perennial herb; prairies and wet low areas; infrequent; flowers red-violet; July-October.

Prunella vulgaris L. Heal-all. Perennial herb; wooded areas along streams; common; flowers lavender-colored; May-September.

Pycnanthemum pilosum Nutt. Hairy Mountain Mint. Perennial herb; dry woods and prairies; common; flowers white-lavender; June-September.

Pycnanthemum tenuifolium Schrad. Slender Mountain Mint. Perennial herb; open woods and prairies; infrequent to common; flowers lavender-colored; June-September.

Salvia pitcheri Torr. Blue Sage. (S. azurea Lam. var. grandiflora Benth.) Perennial herb; prairies; common; flowers blue; July-September.

Salvia reflexa Hornem. Rocky Mountain Sage. Annual; roadsides, pastures and waste areas; common; flowers blue; May-October.

Scutellaria lateriflora L. Mad-dog Skullcap. Perennial herb; willow thickets, alluvial woods and sandbars; common; flowers blue; June-October.

Stachys palustris L. var. pilosa (Nutt.) Fern. Woundwort. Perennial herb; sandbars, willow thickets and alluvial soils; common; flowers lavender-colored; June-September.

Teucrium canadense L. var. virginicum (L.) Eat. Wood Sage. Perennial herb; prairies, sandbars and willow thickets; common; flowers lavender-colored; June-September.

PLANTAGINACEAE (Plantain Family)

Plantago aristata Michx. Bracted Plantain. Annual; dry pastures; infrequent; flowers white; May-November.

Plantago lanceolata L. English Plantain. Perennial herb; pastures, lawns and waste areas; abundant; flowers white; April-October.

Plantago patagonica Jacq. var. patagonica Salt and Pepper Plant. (P. purshii R. & S.) Annual; exposed loess and waste areas; infrequent; flowers green; May-August.

Plantago rugelii Dcne. Rugel Plantain. Perennial herb; roadsides, waste and disturbed areas; abundant; flowers green; May-October.

Plantago virginica L. Hoary Plantain. Annual; waste areas, roadsides and railroads; abundant; flowers green; April-June.

OLEACEAE (Olive Family)

Fraxinus americana L. White Ash. Tree; base of bluffs; infrequent; flowers yellow; April-May.

Fraxinus pennsylvanica Marsh. var. subintegerrima (Vahl.) Fern. Green Ash. Tree; alluvial soils; common; flowers yellow; March-May.

SCROPHULARIACEAE (Figwort Family)

Agalinus tenuifolia (Vahl.) Raf. Slender Agalinus.
(Gerardia tenuifolia Vahl.) Annual; prairies; infrequent; flowers lavender-colored; August-October.

Bacopa rotundifolia (Michx.) Wettst. Water Hyssop.
Creeping perennial herb; spring; Eagle Springs; flowers yellow; May-September.

Castilleja sessiliflora Pursh. Downy Painted Cup. Perennial herb; exposed dry soil of loess hill; Snyder's ranch; infrequent; flowers creamy yellow; April-June.

Chaenorrhinum minus (L.) Lange. Dwarf Snapdragon. Annual; roadsides and railroads; common; flowers lavender-colored and white; June-September.

Leucospora multifida (Michx.) Nutt. [Conobea multifida (Michx.) Benth.] Annual; mudflats and sandbars; common; flowers lavender-colored; May-October.

Linaria vulgaris Hill. Butter and Eggs. Perennial herb; roadsides and waste places; common; flowers yellow-orange; May-November.

Lindernia anagillidea (Michx.) Pennell. False Pimpernel. Annual; sandbars along Missouri River; common; flowers violet-blue; June-October.

Lindernia dubia (L.) Pennell. False Pimpernel. Annual; sandbars along the Missouri River; common; flowers violet-blue; June-October.

Mimulus alatus Ait. Monkey Flower. Perennial herb; oxbow and sandbars along the Missouri River; common; flowers blue-violet; June-September.

Mimulus ringens L. Monkey Flower. Perennial herb; oxbow and along Missouri River sandbars; common; flowers blue-violet; June-September.

Pedicularis canadensis L. Wood Betony. Perennial herb; wooded slopes and ravines; infrequent; flowers yellow; April-May.

Penstemon digitalis Nutt. Beard Tongue. Perennial herb; alluvial thickets; infrequent; flowers white and lavender-colored; May-July.

Scrophularia marilandica L. Figwort. Perennial herb; low woods along creeks; infrequent; flowers greenish-brown; July-October.

Tomanthera auriculata (Michx.) Raf. (Gerardia auriculata Michx.) Perennial herb; prairies; infrequent; flowers lavender-colored; August-October.

Verbascum blattaria L. Moth Mullein. Biennial; prairies; infrequent; flowers white; May-September.

Verbascum thapsus L. Mullein. Biennial; railroads, roadsides, waste areas, disturbed woods and pastures; abundant; flowers yellow; May-September.

Veronica arvensis L. Corn Speedwell. Annual; lawns, railroads and roadsides; common; flowers blue; March-May.

Veronica peregrina L. var. peregrina Purslane Speedwell. Annual; wet places, disturbed fields, roadsides and waste areas; infrequent; flowers white; April-August.

Veronica peregrina L. var. xalapensis (H.B.K.) St. John & Warren. Purslane Speedwell. Annual; roadsides, fields and disturbed areas; common; flowers white; April-August.

Veronicastrum virginicum (L.) Farw. Culver's Root. Perennial herb; prairies; Kleppe's farm; common; flowers white to lavender-colored; June-September.

BIGNONIACEAE (Trumpet Creeper Family)

Campsis radicans (L.) Seem. Trumpet Creeper. Perennial vine; fencerows, open woods and roadsides; common; flowers orange; May-August.

Catalpa speciosa Warden. Catalpa. Tree; low woods and waste areas; infrequent; flowers white; May-June.

ACANTHACEAE (Acanthus Family)

Ruellia humilis Nutt. Wild Petunia. Perennial herb; prairies, roadsides and pastures; common; flowers lavender-colored; May-October.

Ruellia strepens L. Wild Petunia. Perennial herb; wooded areas; common; flowers lavender-colored; May-October.

CAMpanulaceae (Bellflower Family)

Campanula americana L. Tall Bellflower. Annual or biennial; woods; common; flowers blue; June-October.

Lobelia siphilitica L. Blue Cardinal Flower. Perennial herb; marshy areas and wet wooded areas; common; flowers purple; July-October.

Lobelia spicata Lam. Pale Spiked Lobelia. Perennial herb or biennial; prairies; common; flowers pale blue; May-August.

Triodanis leptocarpa (Nutt.) Nieuw. Western Venus' Looking Glass. [Specularia leptocarpa (Nutt.) Gray] Annual; prairies; infrequent; flowers purple; May-August.

Triodanis perfoliata (L.) Nieuw. Venus' Looking Glass. [Specularia perfoliata (L.) A. DC.] Annual; pastures and roadsides; common; flowers purple; May-August.

RUBIACEAE (Madder Family)

Cephaelanthus occidentalis L. Buttonbush. Shrub; sloughs, wet ditches and marshy areas; common; flowers white; June-August.

Galium aparine L. Cleavers. Annual; woodlands and disturbed areas; common; flowers white; May-July.

Galium ciraezans Michx. Wild Licorice. Perennial herb; woods; common; flowers white; May-July.

Galium triflorum Michx. Sweet-scented Bedstraw. Perennial herb; woods; common; flowers white; May-September.

Hedyotis nigricans (Lam.) Fosb. [Houstonia nigricans (Lam.) Fern.] Perennial herb; prairies and exposed hills; common; flowers white; May-October.

CAPRIFOLIACEAE (Honeysuckle Family)

Lonicera dioica L. var. glaucescens (Rydb.) Butters. Limber Honeysuckle. Perennial vine; wooded bluffs; infrequent; flowers purple; April-June.

Lonicera japonicus Thunb. Japanese Honeysuckle. Perennial vine; fencerows, railroads and roadsides; common; flowers white; May-June.

Sambucus canadensis L. Common Elderberry. Shrub; railroads, roadsides, fencerows and ditches; abundant; flowers white; May-July.

Symporicarpos orbiculatus Moench. Buckbrush. Shrub; pastures, thickets and borders of woods; abundant; flowers white; July-August.

Triosteum perfoliatum L. Horse Gentian. Perennial herb; upland woods; common; flowers yellow; May-July.

ASTERACEAE (Sunflower Family)

Achillea millefolium L. ssp. lanulosa (Nutt.) Piper Yarrow. Perennial herb; prairies; common; flowers white; May-November.

Ambrosia artemisiifolia L. Short Ragweed. Annual; roadsides, waste and disturbed areas; abundant; flowers green; July-November.

Ambrosia psilostachya DC. Western Ragweed. Perennial herb; roadsides, pastures, waste and disturbed areas; abundant; flowers green; June-September.

Ambrosia trifida L. Giant Ragweed. Annual; fields, roadsides, pastures, waste areas, railroads and disturbed areas; abundant; flowers green; June-September.

Antennaria neglecta Greene. Pussy's Toes. Perennial herb; prairies and pastures; common; flowers white; April-June.

Antennaria plantaginifolia (L.) Richards. Pussy's Toes. Perennial herb; dry woods; common; flowers white; April-June.

Anthemis cotula L. Mayweed. Annual; pastures and waste areas; infrequent; flowers (disc) yellow and (ray) white; May-November.

Arctium minus Schkuhr. Burdock. Annual; waste areas and fields; infrequent; flowers purple; July-October.

Artemisia biennis Willd. Biennial Wormwood. Biennial or annual; sandbars; infrequent; flowers yellow; September-October.

Aster azureus Lindl. Blue Devil. Perennial herb; prairies, roadsides and open woods; common; flowers blue; August-September.

Aster drummondii Lindl. Drummond Aster. Perennial herb; wooded areas; common; flowers blue (rays) and yellow (discs); August-October.

Aster ericoides L. Wreath Aster. Perennial herb; prairies and exposed loess hills; common; flowers white (rays) and yellow (disc); July-October.

Aster laevis L. Smooth Aster. Perennial herb; woods; common; flowers blue (rays) and yellow (disc); August-October.

Aster novae-angliae L. New England Aster. Perennial herb; wet areas; common; flowers blue (rays) and yellow (disc); August-October.

Aster oblongifolius Nutt. Oblong-leaf Aster. Perennial herb; prairies; common; flowers blue (rays) and yellow (disc); July-November.

Aster ontarionis Wieg. Aster. Perennial herb; low woods and along streams; common; flowers white (rays) and yellow (disc); August-October.

Aster pilosus Willd. Heath Aster. Perennial herb; prairies, pastures and roadsides; common; flowers white (rays) and yellow (disc); August-October.

Aster praealtus Poir. var. praealtus Willow-leaved Aster. Annual; wet meadows and prairies; common; flowers purple (rays) and yellow (disc); August-October.

Aster simplex Willd. Tall Aster. Perennial herb; prairies and waste areas; common; flowers white (rays) and yellow (disc); August-October.

Bidens bipinnata L. Spanish Needles. Annual; waste areas; infrequent; flowers yellow; August-October.

Bidens cernua L. Sticktight. Annual; wet ditches and along sandbars; common; flowers yellow; August-October.

Bidens comosa (Gray) Wieg. Beggarstick. Annual; sandbars along Missouri River; common; flowers yellow; June-October.

Bidens frondosa L. Beggarstick. Annual; waste areas, wet ditches and sloughs; common; flowers yellow; August-October.

Bidens polylepis Blake. Tickseed Sunflower. Annual; wet ditches; common; flowers yellow; August-October.

Cacalia atriplicifolia L. Pale Indian Plantain. Perennial herb; open woods; common; flowers white; June-October.

Cacalia tuberosa Nutt. Indian Plantain. Perennial herb; prairies and pastures; common; flowers white; May-August.

Carduus nutans L. Musk Thistle. Biennial; waste and disturbed areas; common; flowers lavender-colored; June-October.

Centaurea cyanus L. Bachelor's Button. Annual; waste areas; infrequent; flowers blue; May-September.

Chrysanthemum leucanthemum L. Ox-eye Daisy. Perennial herb; pastures and roadsides; common; flowers white (rays) and yellow (disc); May-August.

Cichorium intybus L. Common Chicory. Perennial herb; roadsides, railroads, waste and disturbed areas; abundant; flowers blue; May-October.

Cirsium altissimum (L.) Spreng. Tall Thistle. Biennial or perennial herb; pastures, prairies and roadsides; common; flowers lavender-colored; July-September.

Cirsium discolor (Muhl.) Spreng. Field Thistle. Perennial; pastures, prairies and roadsides; common; flowers lavender-colored; June-October.

Cirsium vulgare (Savi) Ten. Bull Thistle. Perennial herb; waste areas; common; flowers lavender-colored; August-September.

Conyza canadensis (L.) Cronq. Horseweed. (Erigeron canadensis L.) Annual; roadsides, waste and disturbed areas; abundant; flowers white (rays) and yellow (disc); June-November.

Conyza ramosissima Cronq. Dwarf Fleabane. (Erigeron divaricatus Michx.) Annual; waste places; infrequent; flowers white (rays) and yellow (disc); May-September.

Coreopsis grandiflora Hogg. Large-flowered Tickseed. Perennial herb; roadsides; infrequent; flowers yellow; May-July.

Coreopsis palmata Nutt. Stiff Tickseed. Perennial herb; roadsides; infrequent; flowers yellow; May-July.

Dyssodia papposa (Vent.) Hitchc. Fetid Marigold. Annual; roadsides; infrequent; flowers yellow; July-October.

Echinacea pallida Nutt. Purple Coneflower. Perennial herb; prairies and roadsides; common; flowers pink; May-July.

Eclipta alba (L.) Hassk. Annual; sandbars and margins of sloughs and streams; common; flowers white; July-October.

Erechtites hieracifolia (L.) Raf. Fireweed. Annual; open woods and roadsides; infrequent; flowers yellow to cream-colored; July-November.

Erigeron annuus (L.) Pers. Daisy Fleabane. Annual or biennial; pastures, prairies and roadsides; common; flowers white (rays) and yellow (disc); June-October.

Erigeron canadensis L. [see Conyza canadensis (L.) Cronq.].

Erigeron divaricatus L. (see Conyza ramosissima Cronq.).

Erigeron philadelphicus L. Philadelphia Fleabane. Perennial herb; woodlands; common; flowers white to lavender-colored (rays) and yellow (disc); April-June.

Erigeron strigosus Muhl. Daisy Fleabane. Annual or biennial; prairies, pastures and roadsides; common; flowers white (rays) and yellow (disc); May-September.

Eupatorium altissimum L. Tall Thoroughwort. Perennial herb; waste areas, prairies and roadsides; common; flowers white; August-October.

Eupatorium perfoliatum L. Boneset. Perennial herb; wet prairies, thickets and woods; common; flowers white; July-October.

Eupatorium rugosum Houtt. White Snakeroot. Perennial herb; woods; common; flowers white; July-October.

Eupatorium serotinum Michx. Late Boneset. Perennial herb; prairies, pastures and roadsides; common; flowers white; August-October.

Gaillardia pulchella Fouq. Indian Blanket. Annual; waste areas; infrequent; flowers purple-brown; May-September.

Galinsoga ciliata (Raf.) Blake. Annual; waste and cultivated areas; infrequent; flowers white; May-November.

Grindelia squarrosa (Pursh.) Dunal. Gum Plant. Perennial herb; pastures; common; flowers yellow; July-September.

Helenium autumnale L. Sneezeweed. Perennial herb; moist prairies and marshy areas; common; flowers yellow; August-November.

Helianthus annuus L. Common Sunflower. Annual; pastures, roadsides, waste and disturbed areas; abundant; flowers yellow (rays) and brown (disc); July-November.

Helianthus grosseserratus Martens. Saw-toothed Sunflower. Perennial herb; prairies, roadsides and sloughs; flowers yellow; July-October.

Helianthus hirsutus Raf. Sunflower. Perennial herb; wooded areas; common; flowers yellow; July-October.

Helianthus petiolaris Nutt. Prairie Sunflowers. Annual; waste areas; common; flowers yellow (rays) and brown (disc); May-October.

Helianthus rigidus (Cass) Desf. ssp. rigidus Prairie Sunflowers. [H. laetiflorus Pers. var. rigidus (Cass) Fern.] Perennial herb; prairies and roadsides; infrequent; flowers yellow (rays) and reddish-brown (disc); August-October.

Helianthus tuberosa L. Jerusalem Artichoke. Perennial herb; roadsides, woods and waste areas; common; flowers yellow; August-October.

Heliopsis helianthoides (L.) Sweet var. scabra (Dunl.) Fern. False Sunflower. Perennial herb; woods; common; flowers yellow; May-September.

Heterotheca latifolia Buckl. Annual or biennial; exposed loess hills, waste areas and railroads; common; flowers yellow; August-November.

Kuhnia eupatorioides L. var. angustifolia Raf. False Boneset. Perennial herb; roadsides, prairies and pastures; common; flowers white; July-October.

Kuhnia eupatorioides L. var. corymbulosa T. & G. False Boneset. Perennial herb; roadsides, prairies and pastures; common; flowers white; July-October.

Lactuca canadensis L. Wild Lettuce. Annual or biennial; prairies, railroads, roadsides and waste areas; common; flowers yellow and purple; July-September.

Lactuca floridana (L.) Gaertn. Florida Lettuce. Annual or biennial; wooded areas; common; flowers blue; August-October.

Lactuca saligna L. Willow-leaved Lettuce. Annual or biennial; fencerows and roadsides; common; flowers yellow; June-October.

Lactuca serriola L. Prickly Lettuce. (L. scariola L. f. scariola) Annual or biennial; fields, roadsides and waste areas; common; flowers yellow; June-October.

Liatris asper Michx. Blazing Star. Perennial herb; prairies and loess hills; common; flowers violet; August-November.

Liatris mucronata DC. Gay-feather. Perennial herb; prairies; common; flowers violet; August-October.

Liatris punctata Hook. Gay-feather. Perennial herb; prairies; common; flowers violet; August-October.

Liatris pycnostachya Michx. Button Snakeroot. Perennial herb; prairies; common; flowers violet; July-October.

Lygodesmia juncea (Pursh) D. Don. Perennial; exposed hills; common; flowers lavender-colored; June-August.

Matricaria matricarioides (Less.) Porter. Pineapple Weed. Annual or biennial; roadsides and sandbars; common; flowers yellow; May-October.

Pyrrhopappus carolinianus (Walt.) DC. False Dandelion. Annual or biennial; prairies, roadsides and railroads; common; flowers yellow; May-October.

Ratibida columnifera (Nutt.) Woot. and Standl. Longheaded Coneflowers. Perennial herb; prairies, pastures and roadsides; common; flowers yellow (rays) and brown (disc); June-September.

Ratibida pinnata (Vent.) Barnh. Gray-headed Coneflower. Perennial herb; prairies, pastures, roadsides and railroads; common; flowers yellow (rays) and brown (disc); May-September.

Rudbeckia hirta L. Black-eyed Susan. Perennial herb; pastures and roadsides; common; flowers yellow (rays) and brown (disc); May-October.

Rudbeckia laciniata L. Wild Golden Glow. Perennial herb; wooded areas and waste areas; infrequent; flowers yellow; July-September.

Senecio plattensis Nutt. Prairie Ragwort. Perennial herb; woods; infrequent; flowers yellow; May-June.

Silphium laciniatum L. Compass Plant. Perennial herb; prairies; common; flowers yellow; July-September.

Silphium perfoliatum L. Cup Plant. Perennial herb; roadsides and woods; common; flowers yellow; July-September.

Silphium speciosum Nutt. Rosin-weed. (S. integrifolium
var. laeve T. & G.) Perennial herb; prairies and
roadsides; common; flowers yellow; July-September.

Solidago canadensis L. var. glovocanescens Rydb. Tall
Goldenrod. Perennial herb; pastures and roadsides;
common; flowers yellow; August-November.

Solidago canadensis L. var. scabra (Muhl.) T. & G.
Tall Goldenrod. (S. altissima L.) Perennial herb;
prairies, pastures and roadsides; abundant; flowers
yellow; August-November.

Solidago flexicaulis L. Broad-leaved Goldenrod. Perennial
herb; wooded ravines; common; flowers yellow;
August-September.

Solidago gigantea Ait. Late Goldenrod. Perennial herb;
wet woods, roadsides and along low areas; common;
flowers yellow; July-October.

Solidago grammifolia (L.) Salisb. var. gymnospermoides
(Greene) Cronq. Perennial herb; boggy areas;
Bottiger's farm; common; flowers yellow; August-
October.

Solidago hispida Muhl. Perennial; prairies; Kleppe's
farm; infrequent; flowers yellow; July-October.

Solidago missouriensis Nutt. Missouri Goldenrod. Perennial
herb; prairies and exposed loess hills; common;
flowers yellow; July-September.

Solidago nemoralis Ait. Old-field Goldenrod. Perennial
herb; fields and dry open woods; common; flower
yellow; August-November.

Solidago rigida L. var. rigida. Stiff Goldenrod.
Perennial herb; prairies; common; flowers yellow;
August-October.

Solidago speciosa Nutt. Perennial herb; dry upper woods;
common; flowers yellow; August-November.

Solidago ulmifolia Muhl. var. microphylla Gray. Elmleaf
Goldenrod. Perennial herb; woods; common; flowers
yellow; August-November.

Sonchus asper (L.) All. Spiney-leaved Sow Thistle. Annual;
waste areas, roadsides and pastures; common; flowers
yellow; May-October.

Taraxacum laevigatum (Willd.) DC. Red-seeded Dandelion.
(T. erythrospermum Andrz.) Perennial herb; railroads
and roadsides; infrequent; flowers yellow; March-October.

Taraxacum officinale Weber. Common Dandelion. Perennial herb; omnipresent; abundant; flowers yellow; March-October.

Thelesperma megapotamicum (Spreng.) Duntze. Perennial herb; sandy waste; Elwood's sewage treatment area; infrequent; discs yellow; May-July.

Tragopogon dubius Scop. Goat's Beard. Perennial herb; prairies, pastures and roadsides; common; flowers yellow; May-July.

Verbesina alternifolia (L.) Britt. Wingstem. Perennial herb; wooded areas; common; flowers yellow; August-October.

Vernonia baldwini Torr. var. baldwini Ironweed. Perennial herb; pastures, roadsides and disturbed areas; common; flower violet; May-September.

Vernonia baldwini Torr. var. interior (Small) Schub. Ironweed. Perennial herb; pastures, roadsides and waste areas; common; flowers violet; May-September.

Vernonia fasciculata Michx. var. fasciculata Ironweed. Perennial herb; wet areas; infrequent; flowers violet; May-September.

Xanthium strumarium L. Cocklebur. Annual; fields, waste and disturbed areas; common; flowers green; August-October.

Monocotyledoneae

ALISMATACEAE (Water Plantain Family)

Alisma plantago-aquatica L. var. americanum Roem. and Schult. Water Plantain. Perennial herb; sloughs and margins of ponds; common; flowers white; May-September.

Echinodorus rostratus (Nutt.) Engelm. Burhead. Annual or perennial herb; sloughs and marshy areas; Missouri River flood plain; common; flowers white; July-September.

Sagittaria latifolia Willd. Duck Potato. Perennial herb; edges of ponds, sloughs and marshy areas; common; flowers white; July-September.

Sagittaria montevidensis Cham. and Schult. Arrowhead. Perennial herb; oxbows, sloughs and mudflats; common; flowers white; June-September.

POTAMOGETONACEAE (Pondweed Family)

Potamogeton diversifolius Raf. Pondweed. Annual; ponds and sloughs; common; flowers green; May-October.

Potamogeton nodosus Poir. Pondweed. Annual; sloughs and ponds; common; flowers green; May-October.

Potamogeton pectinatus L. Fennel-leaved Pondweed. Annual; oxbows; common; flowers green; May-September.

COMMELINACEAE (Spiderwort Family)

Commelina communis L. Dayflower. Annual; waste and disturbed areas; common; flowers blue and white; May-October.

Tradescantia bracteata Small. Spiderwort. Perennial herb; railroads and prairies; common; flowers violet; May-July.

Tradescantia ohiensis Raf. Spiderwort. Perennial herb; railroads and prairies; common; flowers blue; May-July.

JUNCACEAE (Rush Family)

Juncus dudleyi Wieg. Rush. Perennial herb; wet prairies; Kleppe's farm; common; flowers green; May-August.

Juncus interior Wieg. Rush. Perennial herb; prairies, sloughs and marshy areas; common; flowers green; May-August.

Juncus tenuis Willd. Path Rush. Perennial herb; marshy areas, sloughs and roadsides; common; flowers green; May-September.

Juncus torreyi Coville. Rush. Perennial herb; roadsides, mudflats and pond margins; common; flowers green; July-October.

CYPERACEAE (Sedge Family)

Carex aggregata Mackenz. Sedge. Perennial herb; roadsides, wet ditches and prairies; common; flowers green; April-June.

Carex amphibola Steud. var. turgida Fern. Sedge. Perennial herb; low wet woods; common; flowers green; April-July.

Carex artitexta Mackenz. Sedge. Perennial herb; wooded slopes; common; flowers green; March-May.

- Carex bebbii ex. fern. Sedge. Perennial herb; sloughs; Missouri River flood plain; infrequent; flowers green; September.
- Carex bicknellii Britt. Perennial herb; prairies; common; flowers green; April-July.
- Carex blanda Dew. Perennial herb; rich woods; common; flowers green; April-July.
- Carex brevior (Dewey) Mackenz. Sedge. Perennial herb; wet areas, prairies and railroads; common; flowers green; May-July.
- Carex cephalophora Muhl. Sedge. Perennial herb; rich woods and lawns; common; flowers green; May-July.
- Carex conjuncta Boott. Sedge. Perennial herb; boggy prairies; Bottiger's farm; infrequent; flowers green; May-June.
- Carex cristatella Britt. Sedge. Perennial herb; oxbow lake and mudflats; common; flowers green; May-July.
- Carex davisii Schwein. and Torr. Sedge. Perennial herb; woods, railroads and along streams; common; flowers green; May-July.
- Carex frankii Kunth. Sedge. Perennial herb; wet places and railroads; infrequent; flowers green; May-September.
- Carex gravida Bailey var. gravida Sedge. Perennial herb; roadsides, wet ditches and wooded areas; common; flowers green; May-June.
- Carex heliophila Mack. Sedge. (C. pensylvanica Lam.) Perennial herb; exposed prairies on the tops of loess hills; common; flowers green; April-June.
- Carex hitchcockiana Dew. Sedge. Perennial herb; rich woods and ravines; infrequent; flowers green; May-June.
- Carex hyalinolepis Steud. Sedge. Perennial herb; alluvial soils; common; flowers green; April-July.
- Carex hystricina Muhl. Sedge. Perennial herb; boggy areas; Bottiger's farm; common; flowers green; May-July.
- Carex interior Bailey. Sedge. Perennial herb; boggy area; Bottiger's farm; infrequent; flowers green; April-June.

- Carex jamesii Schwein. Sedge. Perennial herb; rich woods; infrequent; flowers green; April-July.
- Carex laeviconica Dew. Sedge. Perennial herb; alluvial soils; common; flowers green; April-July.
- Carex lanuginosa Michx. Sedge. Perennial herb; roadsides, wet areas and prairies; common; flowers green; April-July.
- Carex leavenworthii Dewey. Sedge. Perennial herb; margins of ponds, oxbows and lawns; common; flowers green; April-June.
- Carex meadii Dew. Sedge. Perennial herb; prairies; common; flowers green; March-June.
- Carex molesta Mackenz. Sedge. Perennial herb; low woods and wooded slopes; common; flowers green; May-July.
- Carex muhlenbergii Schk. var. australis Olney. Sedge. Perennial herb; prairies and lawns; common; flowers green; May-July.
- Carex muhlenbergii Schkuhr. var. enervis Boott. Sedge. Perennial herb; prairies and lawns; common; flowers green; May-July.
- Carex oligocarpa Schkuhr. Sedge. Perennial herb; rich woods and ravines; common; flowers green; April-July.
- Carex rosea Schkuhr. Sedge. Perennial herb; rich woods and wooded slopes; common; flowers green; April-July.
- Carex sartwellii Dewey. Sedge. Perennial herb; boggy areas; Bottiger's farm; common; flowers green; June-July.
- Carex scoparia Schkuhr. Sedge. Perennial herb; wet prairies; common; flowers green; May-July.
- Carex sparganioides Muhl. Sedge. Perennial herb; rich woods and wooded slopes; common; flowers green; April-June.
- Carex stipata Muhl. Sedge. Perennial herb; boggy areas and sloughs; common; flowers green; May-July.
- Carex stricta Lam. Sedge. Perennial herb; boggy areas; Bottiger's farm; common; flowers green; May-July.

- Carex tribuloides Wahl. Sedge. Perennial herb; margins of oxbow lake; infrequent; flowers green; May-August.
- Carex vulpinoidea Michx. Sedge. Perennial herb; marshy areas, along creeks and streams; common; flowers green; May-July.
- Cyperus acuminatus Torr. and Hook. Umbrella Sedge. Annual; mudflats; infrequent; flowers green; June-October.
- Cyperus aristatus Rottb. Umbrella Sedge. Annual; mudflats; infrequent; flowers green; May-October.
- Cyperus erythrorhizos Muhl. Umbrella Sedge. Annual; oxbow lake; common; flowers green; August-October.
- Cyperus lupulinus (Spreng.) Marcks ssp. lupulinus Umbrella Sedge. Perennial herb; railroads and sandy areas; infrequent; flowers green; May-October.
- Cyperus schweinitzii Torr. Schweinitz Flatsedge. Perennial herb; sandy areas; common; flowers green; August-October.
- Cyperus strigosus L. Umbrella Sedge. Perennial herb; mudflats and wet places; common; flowers green; June-October.
- Eleocharis compressa Sulliv. Spike Rush. Perennial herb; wet prairies; common; flowers green; May-July.
- Eleocharis obtusa (Willd.) Schultes. Spike Rush. Annual; spring fed areas; common; flowers green; May-October.
- Hemicarpha micrantha (Vahl.) Pax. Common Hemicarpha. Annual; mudflats; common; flowers green; July-October.
- Scirpus acutus Muhl. Great Bulrush. Perennial herb; sloughs and oxbow lake; infrequent; flowers green; May-September.
- Scirpus americana Pers. Chairmaker's Rush. Perennial herb; mudflats, sloughs and wet ditches; infrequent; flowers green; May-September.
- Scirpus atrovirens Willd. var. atrovirens Common Bulrush. Perennial herb; wet areas; common; flowers green; May-September.
- Scirpus fluviatilis (Torr.) Gray. River Bulrush. Perennial herb; margins of oxbow; common; flowers green; May-September.

Scirpus pendulus Michx. Bulrush. (S. lineatus Michx.)
Perennial herb; roadsides and prairies; common;
flowers green; May-August.

Scirpus validus Vahl. Great Bulrush. Perennial herb;
wet places; common; flowers green; May-September.

Scleria triglomerata Michx. Tall Nut Grass. Perennial
herb; prairies; infrequent; flowers tan; May-
September.

POACEAE (Grass Family)

Aegilops cylindrica Host. Goat Grass. Annual; railroads,
dry open places and waste areas; common; flowers
green; May-August.

Agropyron desertorum (Fisch.) Schult. Crested Wheatgrass.
Perennial herb; sandy waste; Elwood sewage treatment
area; infrequent; flowers green; June-August.

Agropyron repens (L.) Beauv. Quackgrass. Perennial herb;
railroads and waste areas; common; flowers green;
May-September.

Agropyron smithii Rydb. Western Wheatgrass. Perennial
herb; railroads; common; flowers green; May-August.

Agrostis hyemalis (Walt.) B.S.P. var. hyemalis Winter
Bent. Annual; disturbed areas, roadsides, waste
areas and railroads; common; flowers green; June-
August.

Agrostis stolonifera L. Redtop. (A. alba L.) Perennial
herb; wet areas and waste; common; flowers green;
June-August.

Andropogon gerardii Vitman. Big Bluestem. Perennial herb;
prairies and prairie remnants; common; flowers green;
June-September.

Andropogon scoparius Michx. see Schizachyrium scoparium
(Michx.) Nash.

Aristida oligantha Michx. Prairie Three-awn Grass. Annual;
disturbed areas; common; flowers green; August-
October.

Avena sativa L. Oats. Annual; roadsides and railroads;
common; flowers green; May-June.

Bouteloua curtipendula (Michx.) Torr. Sideoats Grama.
Perennial herb; dry prairies and loess; common;
flowers green; July-September.

Bouteloua hirsuta Lag. Hairy Grama. Perennial herb; dry prairies and loess areas; common; flowers green; July-September.

Bromus commutatus Schrad. Brome. Annual; railroads and waste areas; common; flowers green; May-July.

Bromus inermis Leyss ssp. inermis Smooth Brome. Perennial herb; roadsides, pastures and waste areas; abundant; flowers green; May-August.

Bromus japonicus Thunb. Japanese Brome. Annual; roadsides, pastures and waste areas; abundant; flowers green; May-July.

Bromus latiglumis (Shear) Hitchc. Brome. Perennial herb; woods; infrequent; flowers green; July-August.

Bromus pubescens Willd. Canada Brome. Perennial herb; woods; infrequent; flowers green; July-August.

Bromus racemosus L. Hairy Chess. Annual; pastures; infrequent; flowers green; May-July.

Bromus tectorum L. Downy Chess. Annual; waste areas, railroads and roadsides; common; flowers green; April-June.

Buchloe dactyloides (Nutt.) Engelm. Buffalo Grass. Perennial herb; railroads and dry areas; infrequent; flowers green; May-August.

Calamagrostis canadensis (Michx.) Beauv. Bluejoint. Perennial herb; boggy area; Bottiger's farm; common; flowers green; June-August.

Cenchrus longispinus (Hack.) Fern. Sandbur. Annual; sandy areas and waste areas; common; flowers green; May-August.

Chloris verticillata Nutt. Windmill Grass. Perennial herb; waste places; common; flowers green; May-October.

Cinna arundinacea L. Woodreed. Perennial herb; woods; common; flowers green; August-October.

Cynodon dactylon (L.) Pers. Bermuda Grass. Perennial herb; escaped; infrequent; flowers green; July-September.

Dactylis glomerata L. Orchard Grass. Perennial herb; edges of woods, roadsides and pastures; common; flowers green; May-August.

Diarrhena americana Beauv. var. obovata G1. American
Beakgrain. Perennial herb; wooded areas; infrequent;
flowers green; July-September.

Digitaria ischaemum (Schreb.) Muhl. Swell Crab Grass.
Annual; pastures and fields; infrequent; flowers
green; July-November.

Digitaria sanguinalis (L.) Scop. Common Crab Grass. Annual;
waste and disturbed areas; abundant; flowers green;
July-November.

Echinochloa crusgalli (L.) Beauv. Barnyard Grass. Annual;
disturbed areas; common; flowers green; June-November.

Echinochloa muricata (Beauv.) Fern. Barnyard Grass. Annual;
waste and disturbed areas; common; flowers green;
July-October.

Eleusine indica (L.) Gaertn. Goose Grass. Annual; waste
and disturbed areas; common; flowers green; July-
October.

Elymus canadensis L. Canada Wild Rye. Perennial herb;
waste and disturbed areas; common; flowers green;
June-October.

Elymus villosus Muhl. Wild Rye. Perennial herb; woods;
common; flowers green; June-August.

Elymus virginicus L. Virginia Wild Rye. Perennial herb;
woods; common; flowers green; May-September.

Eragrostis ciliaris (All.) E. Mesher. Stink Grass.
Annual; waste and disturbed areas; common; flowers
green; June-October.

Eragrostis frankii C. A. Mey. Sandbar Lovegrass. Annual;
sandbars; infrequent; flowers green; August-October.

Eragrostis hypnoides (Lam.) B.S.P. Teal Lovegrass. Annual;
sandbars, Missouri River; common; flowers green;
July-September.

Eragrostis pectinacea (Michx.) Nees. Carolina Lovegrass.
Annual; waste and disturbed areas; common; flowers
green; July-October.

Eragrostis poaeoides Beauv. Lovegrass. Annual; waste and
railroads; common; flowers green; May-October.

Eragrostis spectabilis (Pursh) Steud. Purple Lovegrass.
Perennial herb; roadsides, railroads and waste areas;
common; flowers reddish-green; July-October.

Eragrostis trichodes (Nutt.) Wood. Sand Lovegrass.
Perennial herb; sandy areas; Elwood sewage treatment area; infrequent; flowers green; July-October.

Eriochloa contracta Hitch. Prairie Cup Grass. Annual;
roadsides and waste areas; common; flowers green;
July-October.

Festuca obtusa Biehler. Nodding Fescue. Perennial herb;
wooded areas; common; flowers green; June-July.

Festuca octoflora Walt. Six-week's Fescue. Annual;
prairies; infrequent; flowers green; June-July.

Festuca pratensis Huds. Meadow Fescue. (F. elatior L.)
Perennial herb; roadsides, waste and disturbed areas;
abundant; flowers green; June-August.

Glyceria striata (Lam.) Hitchc. Fowl Mannagrass. Perennial
herb; marshy areas, along streams and margins of
ponds; common; flowers green; May-July.

Holcus lanatus L. Velvet Grass. Perennial herb; prairies;
Kleppe's farm; infrequent; flowers green; June-August.

Hordeum jubatum L. Foxtail Barley. Perennial herb;
prairies, roadsides and disturbed areas; common;
flowers green; May-October.

Hordeum pusillum Nutt. Little Barley. Annual; roadsides;
common; flowers green; May-June.

Hystrix patula Moench. Bottlebrush. Perennial herb;
woods; infrequent; flowers green; June-August.

Koeleria pyramidata (Lam.) Beauv. June Grass. (K. cristata
Pers.) Perennial herb; prairies; common; flowers
green; May-July.

Leersia oryzoides (L.) Sw. Rice Cut Grass. Perennial herb;
oxbow and sloughs along the Missouri River; common;
flowers green; June-October.

Leersia virginica Willd. White Grass. Perennial herb;
woods; common; flowers green; June-October.

Leptochloa fascicularis (Lam.) Gray. Salt Meadow Grass.
Annual; roadsides, sandbars, mudflats and waste
areas; common; flowers green; July-September.

Leptochloa filiformis (Lam.) Beauv. Red Sprangle Top.
Annual; sandy areas; Missouri River flood plain;
common; flowers green; July-October.

Lolium perenne L. Perennial Ryegrass. Perennial herb; waste areas; common; flowers green; May-August.

Melica nitens (Scribn.) Nutt. Threeflower Melic. Perennial herb; rocky open woods; infrequent; flowers green; April-July.

Muhlenbergia frondosa (Poir.) Fern. Satin Grass. Perennial herb; waste areas, wet woods and sandy areas; common; flowers green; August-November.

Muhlenbergia mexicana (L.) Trin. Bearded Wirestem Muhly. Perennial herb; prairie swale; Bottiger's farm; infrequent; flowers green; August-October.

Muhlenbergia racemosa (Michx.) B.S.P. Marsh Muhly. Perennial herb; sandy areas and woods; common; flowers green; August-October.

Muhlenbergia sobolifera (Muhl.) Trin. Rock Muhly. Perennial herb; dry wooded areas; common; flowers green; July-October.

Muhlenbergia sylvatica Torr. Forest Muhly. Perennial herb; woods; infrequent; flowers green; August-October.

Panicum capillare L. Witch Grass. Annual; prairies, roadsides, pastures, railroads and disturbed areas; common; flowers green; July-October.

Panicum dichotomiflorum Michx. Fall Panicum. Annual; wet areas, waste, fields and disturbed areas; common; flowers green; June-October.

Panicum lanuginosum Ell. var. fasiculatum (Torr.) Fern. (P. implicatum Scribn.) Perennial herb; prairies, pastures and dry open woods; common; flowers green; (vernal) May-September, (autumnal) June-November.

Panicum latifolium L. Panicum. Perennial herb; wooded areas; infrequent; flowers green; (vernal) May-August, (autumnal) July-October.

Panicum leibergii (Vasey) Scribn. Leiberg Panicum. Perennial herb; prairies and dry woods; infrequent; flowers green; (vernal) May-August, (autumnal) June-September.

Panicum oligosanthes Schultes var. scribnerianum (Nash) Fern. Perennial herb; upland woods; infrequent; flowers green; (vernal) May-July, (autumnal) June-November.

Panicum perlongum Nash. Elongate Panicum. Perennial herb; prairies; infrequent; flowers green; (vernal) May-August, (autumnal) July-October.

Panicum virgatum L. Switchgrass. Perennial herb; waste areas, railroads and disturbed areas; abundant; flowers green; July-October.

Paspalum setaceum Michx. var. stramineum (Nash) D. Banks. Paspalum. Perennial herb; roadsides, railroads and waste areas; common; flowers green; May-October.

Phalaris arundinacea L. Reed Canarygrass. Perennial herb; wet areas; abundant; flowers green; June-August.

Phleum pratense L. Timothy Grass. Perennial herb; prairies, pastures and roadsides; common; flowers green; May-August.

Phragmites australis (Cav.) Trin. ex. Steud. Reed. (P. communis Trin.) Perennial herb; wet ditches and boggy areas; Bottiger's farm and Highway 7; infrequent; flowers green; July-October.

Poa annua L. Annual Blue Grass. Annual; railroads and roadsides; common; flowers green; February-December.

Poa compressa L. Canada Blue Grass. Perennial herb; prairies and roadsides; common; flowers green; May-August.

Poa pratensis L. Kentucky Blue Grass. Perennial herb; omnipresent; abundant; flowers green; May-July.

Poa sylvestris A. Gray. Sylvan Blue Grass. Perennial herb; wooded areas; common; flowers green; April-June.

Schizachyrium scoparium (Michx.) Nash. Little Bluestem. (Andropogon scoparius Michx.) Perennial herb; prairies, pastures and roadsides; common; flowers green; August-October.

Sclerochloa dura (L.) Beauv. Hard Grass. Annual; sandy disturbed areas; infrequent; flowers green; April-May.

Setaria faberi Herrm. Nodding Foxtail. Annual; roadsides, railroads, waste areas and fields; abundant; flowers green; July-October.

Setaria glauca (L.) Beauv. Yellow Foxtail. Annual; waste areas, roadsides, railroads and fields; common; flowers yellowish-green; June-October.

Setaria viridis (L.) Beauv. Green Foxtail. Annual; railroads, roadsides, waste areas and fields; common; flowers green; June-October.

Sorgastrum avenaceum (Michx.) Nash. Indian Grass [S. nutans (L.) Nash.] Perennial herb; prairies, loess and roadsides; common; flowers green; July-September.

Sorghum halepense (L.) Pers. Johnson Grass. Perennial herb; roadsides, railroads, waste and disturbed areas; abundant; flowers green; June-October.

Spartina pectinata Link. Slough Grass. Perennial herb; wet ditches, roadsides, sloughs and wet areas; abundant; flowers green; June-September.

Sphenopholis obtusata Scribn. Prairie Wedge Grass. Perennial herb; prairies and base of bluffs; common; flowers green; May-July.

Sporobolus asper (Michx.) var. pilosus (Vasey) Kunth. Hairy Tall Dropseed. Perennial herb; prairies; infrequent; flowers green; August-October.

Sporobolus asper (Michx.) Kunth. var. asper Dropseed. Perennial; roadsides and railroads; common; flowers green; August-October.

Sporobolus cryptandrus (Torr.) Gray. Sand Dropseed. Perennial herb; railroads and sandy areas; common; flowers green; July-October.

Sporobolus heterolepis Gray. Prairie Dropseed. Perennial herb; prairies, infrequent; flowers green; August-October.

Sporobolus vaginiflorus (Torr.) Wood var. vaginiflorus Poverty Grass. Annual; sandy areas and railroads; common; flowers green; August-October.

Stipa spartea Trin. Porcupine Grass. Perennial herb; prairies; common; flowers green; June-July.

Tridens flavus (L.) Hitchc. Purple Top. Perennial herb; open woods and sandy area; common; flowers greenish-purple; July-August.

Triplasis purpurea (Walt.) Chapm. Sandgrass. Annual; sandy areas; Missouri River flood plain; infrequent; flowers green; August-November.

Tripsacum dactyloides L. Gama Grass. Perennial herb; prairies, roadsides and borders of woods; common; flowers green; May-September.

SPARGANIACEAE (Bur-reed Family)

Sparganium eurycarpum Engel. Bur-reed. Perennial herb; oxbow and along Missouri River; common; flowers white; May-August.

TYPHACEAE (Cat-tail Family)

Typha angustifolia L. Narrow-leaved Cat-tail. Perennial herb; edges of ponds and oxbow; common; flowers brown; May-July.

Typha latifolia L. Common Cat-tail. Perennial herb; wet areas; abundant; flowers brown; May-July.

ARACEAE (Arum Family)

Arisaema dracontium (L.) Schott. Green Dragon. Perennial herb; rich wooded areas and ravines; infrequent; flowers yellow-green; April-June.

Arisaema triphyllum (L.) Schott. Jack In The Pulpit. Perennial herb; woods and wooded ravines; common; flowers yellow-green; April-June.

LEMNACEAE (Duckweed Family)

Lemna minor L. Lesser Duckweed. Annual; wet ditches and sloughs; common.

Spirodela polyrrhiza (L.) Schleid. Big Duckweed. Annual; sloughs and oxbows; common.

PONTEDERIACEAE (Pickerelweed Family)

Heteranthera limosa (Sw.) Willd. Mud Plantain. Perennial herb; wet field; infrequent; flowers blue; June-September.

LILIACEAE (Lily Family)

Allium sativum L. Garlic. Perennial herb; roadsides and disturbed areas; common; flowers white; May-July.

Allium vineale L. Field Garlic. Perennial herb; roadsides and disturbed areas; common; flowers white; May-July.

Asparagus officinalis L. Asparagus. Perennial herb; roadsides and fencerows; infrequent; flowers yellow; May-June.

Erythronium albidum Nutt. White Fawn Lily. Perennial herb; wooded areas; common; flowers white; March-May.

Hemerocallis fulva L. Day Lily. Perennial herb; roadsides; common; flowers orange; May-August.

Ornithogalum umbellatum L. Star of Bethlehem. Perennial herb; roadsides and disturbed areas; infrequent; flowers white; April-June.

Polygonatum biflorum (Walt.) Ell. Solomon's Seal. Perennial herb; woods; common; flowers white; May-June.

Smilacina racemosa (L.) Desf. False Solomon's Seal. Perennial herb; woods; infrequent; flowers white; May-June.

Smilax herbacea L. Carrion-flower Greenbrier. Perennial herb; wooded areas; common; flowers white; May-June.

Smilax hispida Muhl. Bristly Greenbrier. Perennial vine; wooded areas; common; flowers white; May-June.

Uvularia grandiflora Sm. Bellwort. Perennial herb; wooded slopes; infrequent; flowers yellow; April-May.

IRIDACEAE (Iris Family)

Iris shrevei Small. Southern Blue Flag. Perennial herb; roadsides and wet places; infrequent; flowers blue; May-June.

Sisyrinchium angustifolium Miller. Blue-eyed Grass. Perennial herb; wet woods; infrequent; flowers blue; May-July.

Sisyrinchium campestre Bickn. var. campestre Prairie Blue-eyed Grass. Perennial herb; prairies; common; flowers blue; April-June.

Sisyrinchium campestre Bickn. var. kansanum Bickn. Prairie Blue-eyed Grass. Perennial; prairies; common; flowers white; April-May.

AMARYLLIDACEAE (Amaryllis Family)

Hypoxis hirsuta (L.) Coville. Yellow Star Grass. Perennial herb; prairies; common; flowers yellow; April-June.

DIOSCOREACEAE (Yam Family)

Dioscorea villosa L. Yam. Perennial vine; wooded areas and roadsides; common; flowers white; April-June.

ORCHIDACEAE (Orchid Family)

Cypripedium calceolus L. Small Yellow Lady Slipper.
Perennial herb; rich wooded slopes; infrequent;
flowers yellow; April-May.

Orchis spectabilis L. Showy Orchis. Perennial herb;
woods; infrequent; flowers blue and white; April-
May.

~~vascular plant~~

~~species of orchid~~

~~shown in Plate~~

~~See page 63~~

~~See page 63~~

~~stems~~

~~leaves~~

~~15~~

~~16~~

SUMMARY

In this study of the ~~vascular~~ plants of Doniphan County, 710 identified species belonged to 387 genera and 97 families (Table I). The number of species of the 10 largest families and 20 largest genera are shown in Table II and III respectively.

Table I. Number of families, genera and species in the plant divisions.

Division	Families	Genera	Species
Arthrophyta	1	CYP	1
Pterophyta	2	Sel	7
Coniferophyta	1	Sal	1
Anthophyta			
Monocotyledoneae	15	Urt	86
Dicotyledoneae	78	Ast	292
Total	97	L	710

Table II. Number of species in the ten largest families.

Family	Species	Family	Species
Asteraceae	99	Rosaceae	25
Poaceae	97	Scrophulariaceae	20
Cyperaceae	51	Lamiaceae	19
Fabaceae	38	Polygonaceae	18
Brassicaceae	25	Apiaceae	16

Table III. Number of species of the twenty largest genera.

Genus	Species	Genus	Species
<u>Carex</u>	35	<u>Cyperus</u>	6
<u>Solidago</u>	10	<u>Scirpus</u>	6
<u>Polygonum</u>	10	<u>Salix</u>	6
<u>Aster</u>	10	<u>Asclepias</u>	6
<u>Euphorbia</u>	9	<u>Desmodium</u>	6
<u>Panicum</u>	8	<u>Amaranthus</u>	6
<u>Rumex</u>	8	<u>Helianthus</u>	6
<u>Bromus</u>	7	<u>Bidens</u>	6
<u>Eragrostis</u>	7	<u>Plantago</u>	5
<u>Quercus</u>	7	<u>Verbena</u>	5

LITERATURE CITED

LITERATURE CITED

- Barkley, T. M. 1968. A manual of the flowering plants of Kansas. The Kansas State University Endowment Association. Manhattan, Kansas. 402 p.
- Fernald, M. L. 1950. Gray's manual of botany. Eighth edition. Am. Book Co., New York. 1632 p.
- Gleason, H. A. 1952. The new Britton and Brown illustrated flora of the Northeastern U.S. and adjacent Canada. Lancaster Press Inc., Lancaster, Penn. 1732 p.
- Gould, F. A., and M. A. Ali and D. E. Fairbrothers. 1972. A revision of Echinochloa in the United States. The American Midland Naturalist. 87:36-59.
- Gould, F. A. 1967. The grass genus Andropogon in the United States. Brittonia. 19:70-75.
- Hitchcock, A. S. 1951. Manual of the grasses of the United States. Second edition. Washington: U.S. Government Printing Office. 1051 p.
- Kuchler, A. W. 1967. Some geographic features of the Kansas prairie. Kans. Acad. Sci. 70(3):388-401.
- McGregor, R. L., W. T. Barker, T. M. Barkley, and J. S. Wilson. 1975. Checklist of the plants of the Great Plains. University of Kansas Herbarium. Lawrence, Kansas.
- Petrides, G. A. 1972. A field guide to trees and shrubs. Peterson Field Guide Series. Houghton Mifflin Co., Boston, Mass. 428 p.
- Richardson, J. W. 1968. The genus Euphorbia of the high plains and prairie plains of Kansas, Nebraska, South and North Dakota. University of Kansas Science Bulletin. 48(3):45-112.
- Russell, N. C. 1965. Violets (Viola) of the central and eastern United States: An introductory survey. Sida Contrib. Bot. 2(1):1-113.
- Schoewe, W. H. 1949. The geography of Kansas: Part II physical geography of Kansas. Tran. Kans. Acad. Sci. 52(3):261-333.

- Stephens, H. A. 1973. Woody plants of the north central plains. The University Press of Kansas, Lawrence, Kansas. 530 p.
- Steyermark, J. A. 1964. Flora of Missouri. Iowa State University Press, Ames, Iowa. 1728 p.
- Wilson, J. S. 1964. Variation of three taxonomic complexes of the genus Cornus. Trans. Kans. Acad. Sci. 67(4):747-817.

NDTK

APPENDIX

APPENDIX

Species listed for the county but not collected during
this study.

Scientific Name

- Equisetum X ferrissii Clute
Asplenium platyneuron (L.) Oakes
Camptosorus rhizophylloides (L.) Link
Pellaea atropurpurea (L.) Link
Woodsia obtusa (Spreng.) Torr.
Commelina erecta L. var. erecta
Carex convoluta Mack.
Carex crus-corvi Shuttlew.
Cyperus rivularis Kunth.
Alopecurus carolinianus Walt.
Andropogon saccharoides Sw.
Bromus secalinus L.
Paspalum pubiflorum Rupr. var. glabrum Vasey
Schedonnardus paniculatus (Nutt.) Trel.
Setaria italica (L.) Beauv.
Sporobolus vaginiflorus (Torr.) Wood var. neglectus (Nash)
Scribn.
Lemna perpusilla Torr. var.
Spiranthes lacera (Raf.) Raf.
Spiranthes vernalis Engelm. and Gray
Triphora trianthophora (Sw.) Rydb. in Britt.
Actaea rubra (Ait.) Willd.
Myosurus minimus L.
Mirabilis albida (Walt.) Heimerl.
Chenopodium ambrosioides L.
Chenopodium berlandieri Moq.
Amaranthus rudis Sauer
Amaranthus tuberculatus (Moq.) Sauer
Froelichia floridana (Nutt.) Moq. var. campestris (Small)
Fern.
Polygonum achoreum Blake
Polygonum bincorne Raf.
Polygonum ramosissimum Michx.
Populus deltoides Marsh var. deltoides
Salix rigida Muhl. var. rigida
Brassica kabera (DC.) Wheeler
Erysimum inconspicuum (Wats.) MacM.
Iodanthus pinnatifidus (Michx.) Steud.
Amelanchier sanguinea (Pursh) DC.
Rosa arkansana Porter
Baptisia australis (L.) R. Br. var. minor (Lehm.) Fern.

Species listed for the county but not collected during
this study. (cont.)

Scientific Name

- Baptisia leucantha T. & G.
Desmodium sessilifolium (Torr.) T. & G.
Lespedeza repens (L.) Bart.
Trifolium campestre Schreb.
Acalypha monococca (Engelm.) Mill.
Croton capitatus Michx. var. capitatus
Euphorbia glyptosperma Engelm.
Vitis vulpina L.
Rhus aromatica Ait. var. serotina (Greene) Rehd.
Geranium maculatum L.
Linum usitatissimum L.
Aralia racemosa L.
Lomatium foeniculaceum (Nutt.) Coulter. and Rose var.
daucifolium (T. & G.) Cronq.
Asclepias viridiflora Raf.
Physalis virginiana Mill. var. virginiana
Solanum elaeagnifolium Cav.
Ipomea lacunosa L.
Cuscuta compacta Juss.
Onosmodium molle Michx. var. occidentale (Mack.)
 1. M. Johnst.
Callitrichche terrestris Raf.
Hedeoma pulegoides (L.) Pers.
Lycopus virginicus L.
Marrubium vulgare L.
Stachys tenuifolia Willd.
Plantago major L.
Seymeria macrophylla Nutt.
Veronica americana (Raf.) Schwein.
Galium concinnum T. & G.
Viburnum prunifolium L.
Artemisia ludoviciana Nutt. var. ludoviciana
Boltonia asteroides (L.) L'Her. var. recognita (Fern.
 and Grisc.) Cronq.
Centaurea solstitialis L.
Cirsium undulatum (Nutt.) Spreng.
Coreopsis tripteris L.
Eupatorium coelestinum L.
Lactuca ludoviciana (Nutt.) DC.
Rudbeckia triloba L.
Senecio glabellus Poir.
Silphium integrifolium Michx.
Sonchus oleraceus L.
Vernonia gigantea (Walt.) Trel.

INDEX

Abutilon	17	ASCLEPIADACEAE	32	Cephalanthus	39
Acalypha	27	Asclepias	32	Cerastium	14
ACANTHACEAE	38	Asimina	10	Cercis	23
Acer	29	Asparagus	59	Chaenorrhinum	37
ACERACEAE	29	Aster	40	Chaerophyllum	30
Achillea	40	ASTERACEAE	40	CHENOPODIACEAE	15
Adiantum	9	Astragalus	24	Chenopodium	15
Aegilops	52	Avena	52	Chloris	53
Aesculus	29	Bacopa	37	Chorispora	19
Agalinus	37	BALASAMINACEAE	30	Chrysanthemum	42
Agastache	35	Baptisia	24	Cichorium	42
Agrimonia	21	Barbarea	19	Cicuta	31
Agropyron	52	BERBERIDACEAE	11	Cinna	53
Agrostis	52	Betulaceae	14	Circaeа	26
Ailanthus	29	Bidens	41	Cirsium	42
AIZOACEAE	14	BIGNONIACEAE	38	Claytonia	15
Alisma	47	Boehmeria	13	Clematis	10
ALISMATACEAE	47	BORAGINACEAE	34	Comandra	27
Alliaria	19	Bouteloua	52	Commelina	48
Allium	59	Botrychium	9	COMMELINACEAE	48
AMARANTHACEAE	15	Brassica	19	Conium	31
Amaranthus	15	BRASSICACEAE	19	CONVOLVULACEAE	33
AMARYLLIDACEAE	60	Bromus	53	Convolvulus	33
Ambrosia	40	Buchloe	53	Conyzza	42
Amelanchier	21	Cacalia	41	Coreopsis	42
Ammania	26	Calamagrostis	53	CORNACEAE	27
Amorpha	23	Callirhoe	17	Cornus	27
Ampelopsis	28	Camelina	19	Coronilla	24
Amphicarpa	24	Campanula	39	Corydalis	12
ANACARDIACEAE	29	CAMPANULACEAE	39	Corylus	14
Andropogon	52	Campsis	38	CRASSULACEAE	21
Androsace	21	CANNABACEAE	12	Crataegus	21
Anemone	10	Cannabis	12	Crotalaria	24
ANNONACEAE	10	CAPRIFOLIACEAE	39	Croton	27
Antennaria	40	Capsella	19	Cryptotaenia	31
Anthemis	40	Cardamine	19	CUCURBITACEAE	18
APIACEAE	30	Cardaria	19	CUPRESSACEAE	10
Apios	24	Carduus	42	Cuscuta	33
APOCYNACEAE	32	Carex	48	CUSCUTACEAE	33
Apocynum	32	Carya	13	Cycloloma	15
Aquilegia	10	CARYOPHYLLACEAE	14	Cynanchum	32
Arabis	19	Cassia	23	Cynodon	53
ARACEAE	59	Castilleja	37	CYPERACEAE	48
Arctium	40	Catalpa	38	Cyperus	51
Arenaria	14	Caulophyllum	11	Cypripedium	61
Argemone	11	Ceanothus	28	Cystopteris	9
Arisaema	59	CELASTRACEAE	27	Dactylis	53
Aristida	52	Celastrus	27	Dalea	24
ARISTOLOCHIACEAE	10	Celtis	12	Datura	32
Artemisia	40	Cenchrus	53	Daucus	31
Asarum	10	Centaurea	42	Delphinium	10

Dentaria	19	Glechoma	35	Liatris	45
Descurainia	19	Gleditsia	23	LILIACEAE	59
Desmanthus	23	Glyceria	55	LINACEAE	30
Desmodium	24	Grindelia	43	Linaria	37
Diarrhena	54	Gymnocladus	23	Lindernia	37
Dicentra	11	Hackelia	34	Linum	30
Digitaria	54	Hedeoma	35	Lithospermum	34
Dioscorea	60	Hedyotis	39	Lobelia	39
DIOSCOREACEAE	60	Helenium	43	Lolium	56
Diospyrus	21	Helianthus	43	Lonicera	39
Draba	20	Heliopsis	44	Ludwigia	26
Dyssodia	42	Hemerocallis	60	Lychnis	14
EBENACEAE	21	Hemicarpha	51	Lycium	32
Echinacea	42	Hesperis	20	Lycopersicon	32
Echinochloa	54	Heteranthera	59	Lycopis	35
Echinocystis	18	Heterotheca	44	Lygodesmia	45
Echinodorus	47	Heuchera	21	Lysimachia	21
Eclipta	42	Hibiscus	17	LYTHRACEAE	26
ELAEAGNACEAE	27	HIPPOCASTINACEAE	29	Lythrum	26
Elaeagnus	27	Holcus	55	Maclura	12
Eleocharis	51	Holosteum	14	Malva	17
Eleusine	54	Hordeum	55	MALVACEAE	17
Ellisia	34	Humulus	12	Matricaria	45
Elymus	54	HYDROPHYLLACEAE	34	Medicago	25
Epilobium	26	Hydrophyllum	34	Melica	56
EQUISETACEAE	9	HYPERICACEAE	17	Melilotus	25
Equisetum	9	Hypericum	17	MENISPERMACEAE	11
Eragrostis	54	Hypoxis	60	Menispermum	11
Erechtites	43	Hystrrix	55	Mentha	35
Erigeron	43	Impatiens	30	Mimulus	37
Eriochloa	55	Ipomea	33	Mirabilis	14
Eryngium	31	IRIDACEAE	60	Mollugo	14
Erysimum	20	Iris	60	Monarda	35
Erythronium	59	Isopyrum	11	MORACEAE	12
Euonymus	27	JUGLANDACEAE	13	Morus	12
Eupatorium	43	Juglans	13	Muhlenbergia	56
Euphorbia	28	JUNCACEAE	48	Nasturtium	20
EUPHORBIACEAE	27	Juncus	48	Nelumbo	10
FABACEAE	23	Juniperus	10	NELUMBONACEAE	10
FAGACEAE	13	Kochia	15	Nepeta	35
Festuca	55	Koeleria	55	NYCTAGINACEAE	14
Fragaria	22	Kuhnia	44	Oenothera	26
Fraxinus	37	Lactuca	44	OLEACEAE	37
Froelichia	16	LAMIACEAE	35	ONAGRACEAE	26
FUMARIACEAE	12	Lamium	35	Onoclea	9
Gaillardia	43	Laportea	13	OPHIOGLOSSACEAE	9
Galinsoga	43	Leersia	55	ORCHIDACEAE	61
Galium	39	Lemna	59	Orchis	61
Gaura	26	LEMNACEAE	59	Ornithogalum	60
Gentiana	32	Leonurus	35	Osmorhiza	31
GENTIANACEAE	32	Lepidium	20	Osmunda	9
GERANIACEAE	30	Leptochloa	55	OSMUNDACEAE	9
Geranium	30	Lespedeza	24	Ostrya	14
Geum	22	Leucospora	37	OXALIDACEAE	30

Oxalis	30	Quercus	13	Sorghum	58
Panicum	56	RANUNCULACEAE	10	SPARGANIACEAE	59
PAPAVERACEAE	11	Ranunculus	11	Sparganium	59
Parietaria	13	Ratibida	45	Spartina	58
Parthenocissus	28	RHAMNACEAE	28	Spermolepis	31
Paspalum	57	Rhus	29	Spenopholis	58
Pastinaca	31	Ribes	21	Spirodela	59
Pedicularis	37	Robinia	25	Sporobolus	58
Pellaea	9	Rorippa	20	Stachys	36
Penstemon	38	Rosa	22	Staphylea	29
Penthorum	21	ROSACEAE	21	STAPHYLEACEAE	29
Perilla	35	RUBIACEAE	39	Stellaria	15
Petalostemon	25	Rubus	22	Stipa	58
Phalaris	57	Rudbeckia	45	Strophostyles	25
Phleum	57	Ruellia	38	Symporicarpos	40
Phlox	34	Rumex	16	Taraxacum	46
Phragmites	57	RUTACEAE	30	Teucrium	36
Phryma	35	Sagittaria	47	Thalictrum	11
PHRYMACEAE	35	Salsola	15	Thelesperma	47
Phyla	34	SALICACEAE	18	Thelypteris	9
Physalis	33	Salix	18	Thlaspi	21
Physostegia	35	Salvia	36	Tilia	17
Phytolacca	14	Sambucus	39	TILIACEAE	17
PHYTOLACCACEAE	14	Sanguinaria	11	Tomanthera	38
Pilea	13	Sanicula	31	Torilis	31
PLANTAGINACEAE	36	SANTALACEAE	27	Toxicodendron	29
Plantago	36	Saponaria	14	Tradescantia	48
PLATANACEAE	12	SAXIFRAGACEAE	21	Tragopogon	47
Platanus	12	Schizachyrium	57	Tribulus	30
Poa	57	Schrankia	23	Tridens	58
POACEAE	52	Scirpus	51	Trifolium	25
Podophyllum	11	Scleria	52	Triodanis	39
POLEMONIACEAE	33	Sclerochloa	57	Triosetum	40
Polemonium	34	Scrophularia	38	Triplasis	58
POLYGONACEAE	16	SCROPHULARIACEAE	37	Tripsacum	58
Polygonatum	60	Scutellaria	36	Typha	59
Polygonum	16	Sedum	21	TYPHACEAE	59
POLYPODIACEAE	9	Seum	25	ULMACEAE	12
Polytaenia	31	Senecio	45	Ulmus	12
PONTEDERIACEAE	59	Setaria	57	Urtica	13
Populus	18	Sicyos	18	URTICACEAE	13
Portulaca	15	Sida	18	Uvularia	60
PORTULACACEAE	15	Silene	14	Verbascum	38
Potamogeton	48	Silphium	45	Verbena	34
POTAMOGETONACEAE	48	SIMAROUBACEAE	29	VERBENACEAE	34
Potentilla	22	Sisymbrium	20	Verbesina	47
PRIMULACEAE	21	Sisyrinchium	60	Vernonia	47
Prunella	36	Smilacina	60	Veronica	38
Prunus	22	Smilax	60	Veronicastrum	38
Psoralea	25	SOLANACEAE	32	Vicia	26
Pueraria	25	Solanum	33	Viola	18
Pycnanthemum	36	Solidago	46	VIOLACEAE	18
Pyrrhopappus	45	Sonchus	46	VITACEAE	28
Pyrus	22	Sorghastrum	58	Vitis	29

Xanthium 47
Zanthoxylum 30
Zizia 31
ZYGOPHYLLACEAE 30