

THE VASCULAR FLORA OF COFFEY COUNTY, KANSAS

577

A Thesis
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Kansas State Teachers College, Emporia, Kansas

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Master of Science

by
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The
M

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Abstract

Coffey County is located in east central Kansas. It is an ecotonal area between the eastern deciduous hardwood forests to the east and the tall grass prairie to the west. The two vegetation types occur throughout the county in a mosaic-like pattern. The county is part of the Osage Cuestas and is characterized by gently rolling plains and relatively flat river valleys. The major river in the county is the Neosho River.

The checklist of The Vascular Flora of Coffey County, Kansas contains 674 species. The species are arranged following the Flora of Missouri (Steyermark, 1964). The genera and species are listed alphabetically in each family. In addition to the specific epithet, the common name and certain phenological and ecological data are given for each species.

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Introduction

The purpose of this study was to establish a checklist of the vascular plants of Coffey County, Kansas and to obtain certain phenological and ecological data for each species. The county is an ecotonal area between the eastern deciduous hardwood forest to the east and the tall grass prairie to the west. The two vegetational types actually occur in a mosaic-like pattern as indicated by Kùchler's map of the potential natural vegetation of the conterminous United States (Kùchler, 1964). Mosaics as defined by Kùchler are vegetation types arranged so that the discrete character of each of the types involved is retained.

"The species of one type are not mixed with those of the other. Usually, 'islands' of one type are embedded in a matrix of the other type; each type may be either matrix or island, depending on the relative extent of each."

Prior to this study relatively little floristic work had been done on this area except for a few casual collections.

Coffey County is located in east central Kansas in the Osage Cuestas.

Schoewe (1949) has described this area as follows:

"In general, the Osage Cuestas consist of a series of northeast--southwest irregularly trending east-facing escarpments between which are flat to gently rolling plains. The underlying strata are made up of unequally resistant alternating hard and soft Pennsylvanian formations of limestone and shale which are gently inclined to the west and northwest. The cuestas are due to differential erosion in these alternating hard and soft gently westward-dipping shales and limestones. Each cuesta consists of a steep bold east-facing front or escarpment and a gentler inclined surface or vale sloping in the direction of the dip of the strata. The crest of each escarpment is capped by a resistant limestone usually underlain by weak shales or sandstones. The dip-slope surface or gentler slope of the cuesta although controlled largely by the resistant limestone is nevertheless mostly developed in the weaker shales or sandstones. The

escarpment fronts range in height from 50 feet or less to more than 200 feet. Wherever the escarpments are bold and the underlying shale is thick, mounds commonly exist to the southeast of and parallel to the escarpment proper. Kansas, Marais des Cygnes, Neosho and Verdigris Rivers flow in a general east and southeast direction transverse to the direction of the escarpments and against the dip of the rock formations. The major streams flow in valleys from one to several miles wide with their flood plains from 100 to 200 feet below the cuesta summits."

The county which contains 648 square miles lies approximately 50 miles west of the Kansas-Missouri border and 75 miles north of the Kansas-Oklahoma border (Fig. 1). It is bordered on the north by Osage County, on the south by Woodson County, on the east by Anderson and Franklin Counties, and on the west by Lyon and Greenwood Counties.

Most of the river drainage in Coffey County is afforded by the Neosho River. It flows from northwest to southeast across the county and drains into the Arkansas River Basin. The extreme northeast part of the county is drained into the Missouri River Basin by tributaries of the Marais des Cygnes River.

In 1965 the construction of the John Redmond Dam and Reservoir for flood control was completed on the Neosho River above Burlington. The reservoir has a surface area of 7780 acres at the top of the conservation pool. Prior to the construction of this dam the Neosho River valley suffered from frequent floods, some of which were quite severe and caused much damage to property and crops.

The predominant bedrock underlying the county consists mainly of Carboniferous shales, sandstones, and limestones (Fig. 2) of Pennsylvanian age (Schoewe, 1949). These strata were laid down as sediments under sea waters which inundated the land numerous times. The soil types and the general topography of the county as it now exists are determined to a large extent

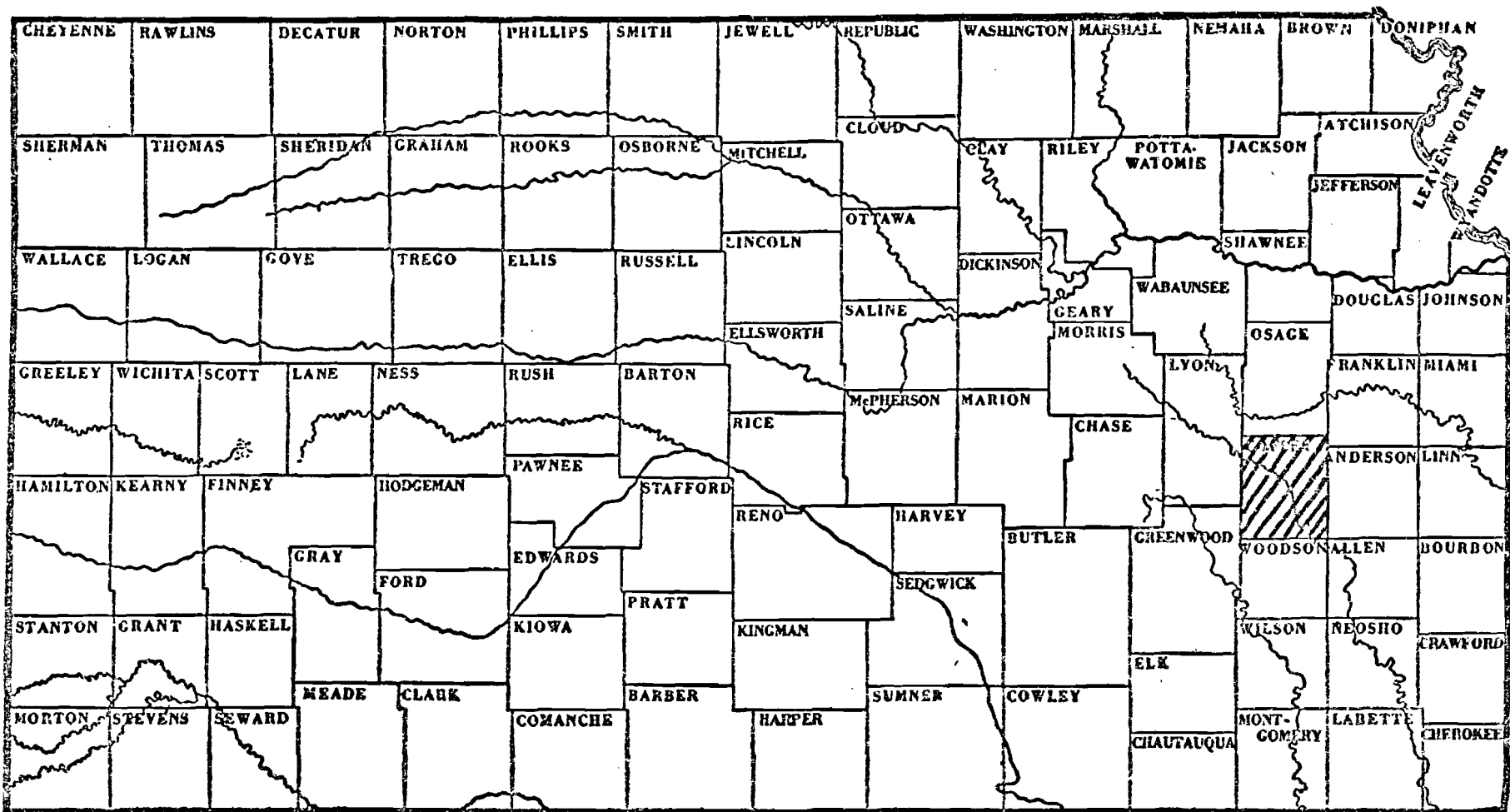


Figure 1. Location of Coffey County in Kansas.

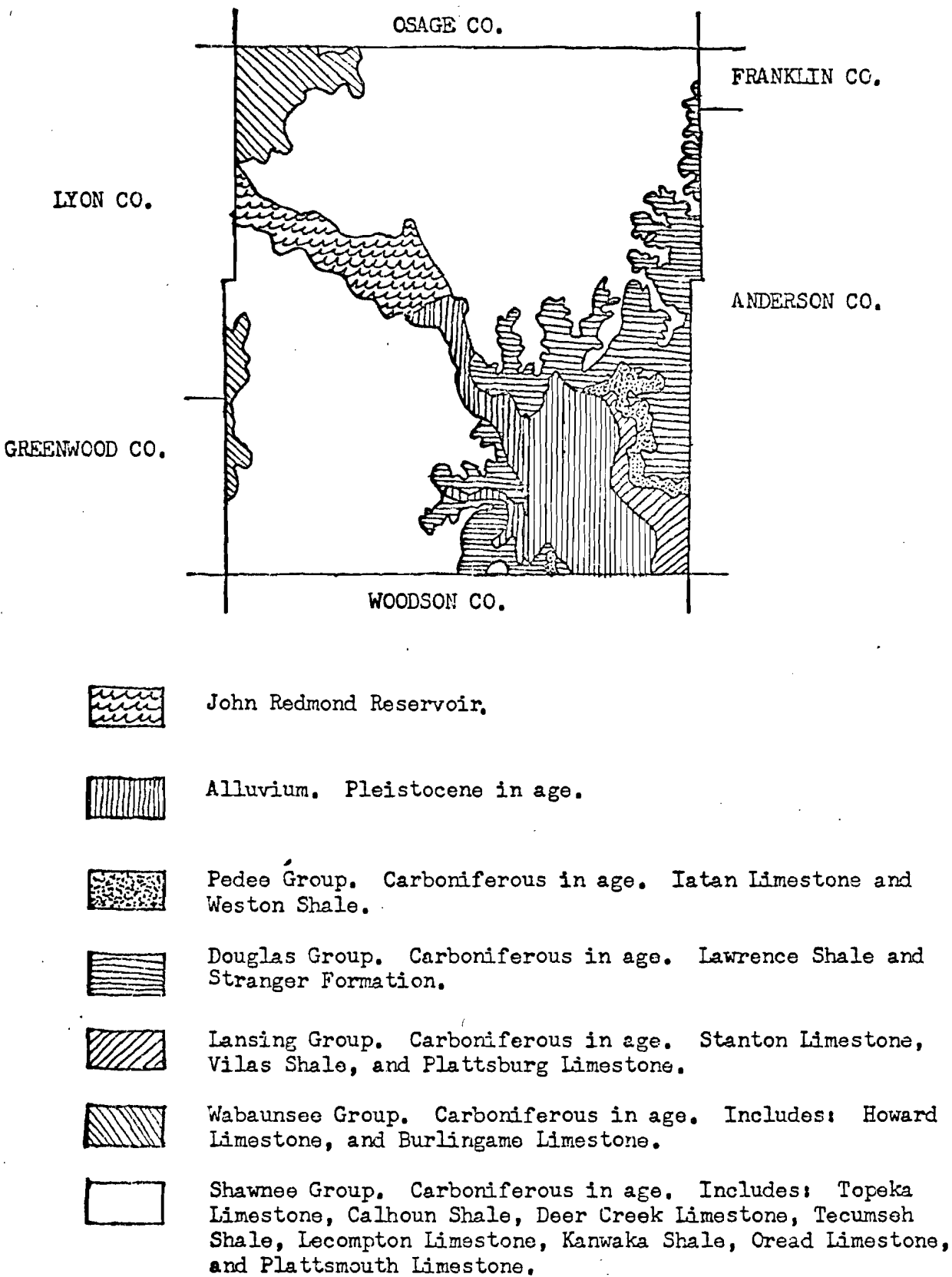


Figure 2. Geological map of Coffey County, Kansas

by the underlying Carboniferous bedrock. The only important exceptions are the Pleistocene alluvial deposits in the river bottoms and a layer of Pleistocene loess which covers most of the state of Kansas.

The climate of the county is variable, with rapid changes in precipitation, temperature and wind direction being common. The vegetation is influenced by these variables--in particular those of precipitation and temperature. Values for the monthly amounts of precipitation as recorded at John Redmond Dam and Reservoir for the years 1966, 1967, 1968, and the first five months of 1969 are shown in Table I. The county receives an average of 35 inches of precipitation per year, with the largest rainfalls occurring in the spring and fall. Periods of prolonged drought are not uncommon during the summer months. Indeed, Kitchler (1967) in his article on the Kansas prairie states that:

"In this area, the most important feature of the climate is undoubtedly the unreliable and unpredictable precipitation. For the rains may come early or late; they may be evenly distributed throughout the growing season or be bunched together in a few hard showers; it may rain amply or little, or indeed, not at all. ...A given year may have an average amount of rainfall and yet experience drought conditions if the precipitation occurs in a few large and closely spaced downpours."

The late spring and early summer of 1968 in Coffey County provide a good example of what Kitchler had reference to, inasmuch as, during early June heavy rains followed by considerable flooding occurred and was subsequently followed by a drought of several weeks duration in July and August.

Values for the average and the high and low temperature extremes for the years 1966, 1967, 1968, and the first five months of 1969 are given in Table II (John Redmond Dam and Reservoir in central Coffey County) and Table III (the Glenwood area on the far eastern side of the county). The hottest months are June, July and August with monthly averages varying from 72.2 to

82.5 °F. The coldest months are December, January and February with monthly averages varying from 26.7 to 34.9 °F. The highest temperature recorded during this period was 102 °F in July 1966, the lowest was -15 °F in January 1966. The month of March in 1969 averaged about 10 °F cooler (36.6 °F) than the normal average (about 45 to 48 °F) for this month.

Daily temperature variation may be considerable in the growing season (March through October). During this time the variations generally range from 10 to 30 °F each day, averaging about 15 to 20 °F. However extremes may range from less than 3 °F to more than 50 °F. The higher extremes in daily temperature variation undoubtedly act as limiting factors for some taxa which might otherwise occur in this area. These fluctuations are no doubt of greatest importance early in the growing season when seeds are germinating and are most sensitive to these changes.

A trend toward later frost-free dates in the spring has been observed in the county in recent years. The frost-free date has shifted from mid-April to early May during the last 15 to 20 years, with a hard frost occurring as late as May 7 in 1967.

The prevailing winter winds are from the north and northwest, and the summer winds from the south and southwest. Ice storms and blizzard-like conditions occur with some frequency during the colder months, while hail and violent rainstorms pose a threat to crops during the warm 190 day growing season. Snowfalls are generally fairly light and usually do not remain on the ground for prolonged periods of time.

In recent years improper farming and range management methods have allowed considerable soil erosion to occur. Many of the pastures in the county are overgrazed to some extent as indicated by the abundance (indeed

often dominance) of several different weedy species including: broomweed, ironweed, buckbrush, ragweed, snow-on-the-mountain, and sumac. It is also interesting to note that many of the overgrazed pastures are being invaded by red cedar, honey locust and osage orange trees in addition to the aforementioned plants. These trees can be controlled only by periodic burning, spraying, or mowing of the pastures.

Much of the native timber has already been cut-over to provide more farmland and pastures. If this practice continues at the present rate a time will come in the not too far distant future when most of the native wooded areas in the county will have been destroyed.

While the long range precipitation cycles influence the type of prairie (tall or mixed) that will occur in this area (Küchler, 1967), it must be borne in mind that this area has as it's potential climax an attenuated form of the eastern deciduous woodland. In support of this idea may be cited the following qualitative observations: (1) the current invasion of pastures, fence rows, and open areas by elms, honey locust, osage orange and red cedar; this type of invasion of the grassland by the aforementioned arborescent woody taxa may be observed in all parts of the county. (2) the occurrence of formerly extensive oak-hickory-black walnut and elm-hackberry-cottonwood-oak woodlands along the river bottoms. (3) the existence of upland woods (mainly oak-hickory) on rocky rough hillsides such as may still be observed in the Glenwood area and elsewhere.

Table I. The monthly precipitation (inches) for Coffey County from January 1966 through May 1969.*

Month	1966	1967	1968	1969
January	0.01	1.45 (1.50) [†]	0.13 (2.0) [†]	0.80 (4.25) [†]
February	1.28 (12.0) [†]	0.17	0.19 (1.0) [†]	0.45
March	1.52	1.25	1.08	1.80 (4.5) [†]
April	4.89	5.31	3.73	3.53
May	2.16	5.25	4.63	5.11
June	3.07	12.33	3.85	
July	4.44	4.78	10.01	
August	2.49	2.15	3.11	
September	1.84	5.84	1.77	
October	0.55	3.04	4.29	
November	0.39	0.84	4.00 (4.3) [†]	
December	0.68 (5.1) [†]	1.22 (5.5) [†]	1.71	

*Records courtesy of the Army Corps of Engineers weather station at John Redmond Dam and Reservoir.

[†]Unmelted snow (inches).

Table II. Monthly temperature ($^{\circ}\text{F}$) values for the average and the high and low extremes from January 1966 through May 1969 recorded at John Redmond Dam and Reservoir in central Coffey County.

Month	1966			1967			1968			1969		
	Ave.	H	L	Ave.	H	L	Ave.	H	L	Ave.	H	L
Jan	27.0	58	-11	32.5	74	3	26.7	64	-12	27.7	59	2
Feb	31.2	63	0	32.0	73	4	30.9	60	5	33.8	56	14
Mar	47.2	81	11	46.2	86	0	45.4	88	12	36.0	81	7
Apr	54.3	89	25	57.9	86	28	55.9	85	21	55.9	84	29
May	64.3	93	40	61.4	92	29	60.1	90	36	64.4	91	34
Jun	73.2	98	50	72.5	94	51	74.6	98	50			
Jul	82.5	102	63	75.1	100	51	77.4	98	53			
Aug	74.3	98	54	72.2	94	49	76.4	99	53			
Sep	66.8	90	45	64.2	88	32	67.4	94	40			
Oct	56.6	87	28	55.8	89	30	57.5	89	27			
Nov	46.9	79	7	42.5	70	21	41.9	81	20			
Dec	31.7	76	1	34.4	75	5	29.8	65	-9			

Table III. Monthly temperature ($^{\circ}\text{F}$) values for the average and the high and low extremes from January 1966 through May 1969 recorded in the Glenwood area in eastern Coffey County.*

Month	1966			1967			1968			1969		
	Ave.	H	L	Ave.	H	L	Ave.	H	L	Ave.	H	L
Jan	27.1	57	-15	34.9	72	-3	29.9	65	-13	27.4	48	-7
Feb	32.0	64	-6	33.4	70	4	31.2	62	3	34.8	55	12
Mar	48.1	87	10	47.7	84	0	47.3	87	7	36.3	79	1
Apr	52.6	85	24	59.8	87	26	55.6	85	23	57.0	81	32
May	65.0	90	38	61.8	94	34	61.1	90	37	64.8	87	34
Jun	72.9	95	50	72.8	89	51	74.8	94	51			
Jul	82.2	100	64	74.7	96	52	78.0	94	51			
Aug	74.2	95	54	73.6	93	46	75.9	94	55			
Sep	67.2	90	42	65.3	87	36	67.5	90	43			
Oct	58.0	86	24	57.0	89	26	58.9	89	30			
Nov	48.3	78	9	43.0	69	21	40.8	84	16			
Dec	32.5	75	2	34.0	64	-3	27.8	57	-15			

*Records courtesy of Mrs. Ruth R. Magrath

Collection Areas

Several collecting areas were selected as good examples of different habitats and/or phytocenoses. Collections were made in these areas on a more-or-less regular basis during the 1967 and 1968 growing seasons. A brief description and the location of these areas is given below:

- A. Glenwood (Westphalia) Area. The area consists of three different types of areas adjacent to each other: (1) native prairie hay meadow and adjacent overgrazed prairie pasture containing a large recently built pond, (2) a river-bottom woodland and (3) a hilly upland oak-hickory woodland and adjoining shrub-savanna. These areas are located 6 to 7 miles north and 1 to 2 west of Westphalia.
- B. Hartford Area. The area consists of two different prairie habitats: the first is a low prairie with a marshy area and the other is an upland prairie pasture with a gravelly bottomed "buffalo wallow". These areas are located respectively 6 and 3 miles north of Hartford.
- C. Lebo Area. This area, a good prairie pasture and associated oak-hickory timber (with numerous rocky outcrops and small bluffs), is located 4 miles south and 1 1/2 west of Lebo.
- D. Ottumwa Area. This area, an excellent prairie hay meadow on a south-facing slope (with a marshy area at the base of the hill), is located 1 mile west and 2 1/4 north of Ottumwa.
- E. Beto Junction Area. This is an excellent oak-hickory area on sandstone rock outcrops along North Long Creek. It is one mile north of Beto Junction on US 50.

- F. John Redmond Dam (New Strawn) Area. This area consists of a cleared and badly disturbed area adjoining a partially cut-over river bottom woodland immediately below John Redmond Dam (2 miles south and 1 west of New Strawn).
- G. Gridley Area. This area consists of an excellent upland prairie hay meadow with some limestone outcrops. It is 2 miles west and $3/4$ south of Gridley.
- H. Big Creek Area. This is an oak-hickory timber area along upper Big Creek about $4 \frac{1}{2}$ miles north of Gridley.
- I. LeRoy Area. This is a wooded area on the lower Neosho River flood-plain 2 miles south and 2 east of LeRoy.
- J. Aliceville Area. This is a lowland prairie and adjoining wooded area $5 \frac{1}{4}$ miles north of Aliceville.
- K. Crooked Creek Area. This is a wooded area 3 miles north and 1 west of Aliceville.
- L. Burlington Area. This area consists of an overgrazed pasture, waste area, and cut-over and partially regrown wooded area with a small marsh and slough 1 mile south of Burlington.
- M. East Burlington Area. This area consists of a prairie hay meadow and adjacent railroad right-of-way about 2 miles east of Burlington.
- N. Waverly Area. This area consists of a wooded area which is progressively being cleared for cultivated fields and a marshy slough. It is located 3 miles south and $1/2$ west of Waverly.
- O. Pleasant Mound Area. This is a hillside prairie with a rocky slough running through it and an adjacent fringe of oak-hickory bottom woodland located 5 miles south and 4 east of Waverly.

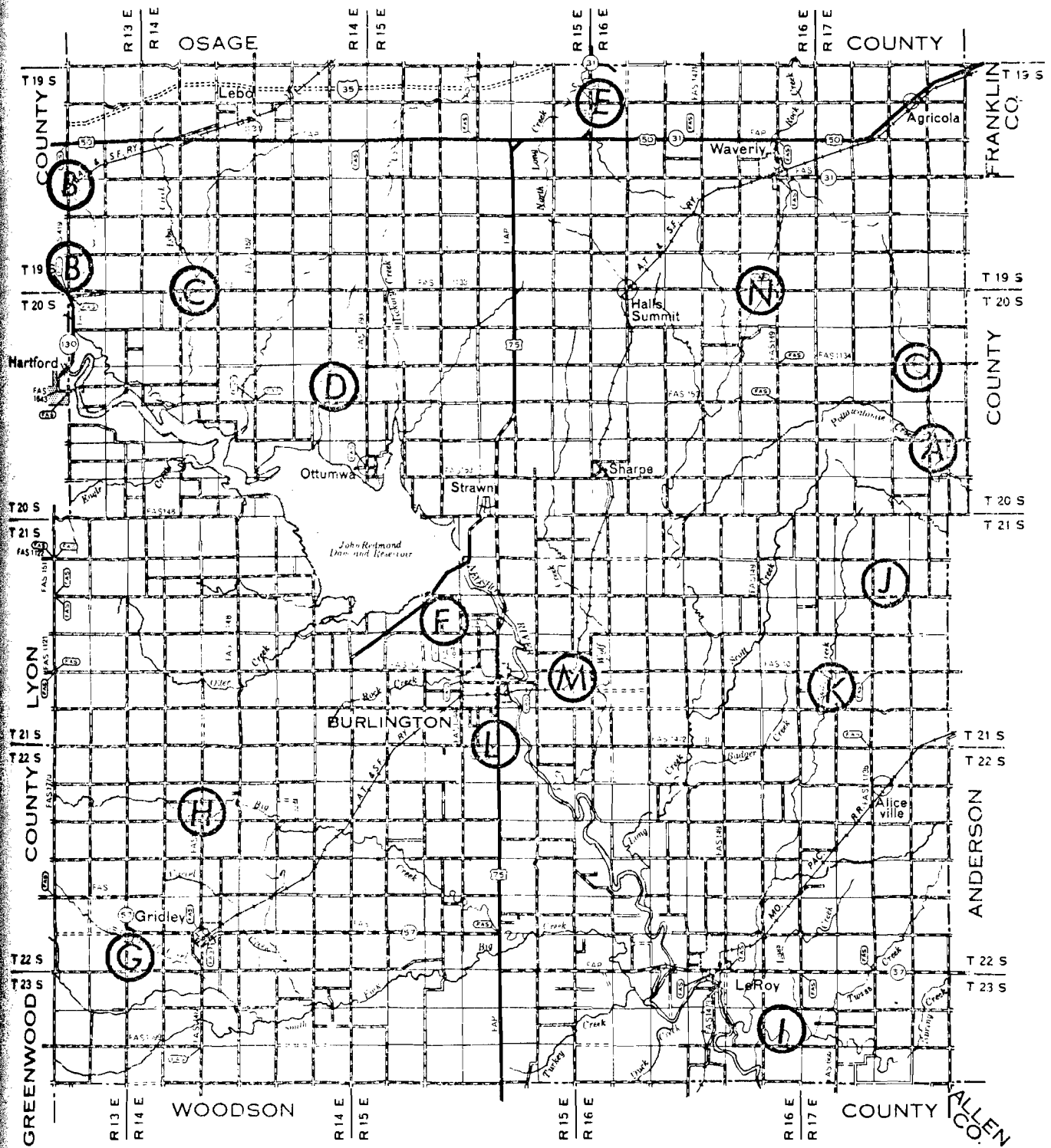
These areas are illustrated on the general highway map of Coffey County, Kansas (Fig. 3).

Figure 3.

General highway map of Coffey County, Kansas, with locations of major collecting areas indicated.

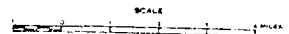
Collection areas:

- A. Glenwood (Westphalia) Area
- B. Hartford Area
- C. Lebo Area
- D. Ottumwa Area
- E. Beto Jct. Area
- F. John Redmond Dam (New Strawn) Area
- G. Gridley Area
- H. Big Creek Area
- I. LeRoy Area
- J. Aliceville Area
- K. Crooked Creek Area
- L. Burlington Area
- M. East Burlington Area
- N. Waverly Area
- O. Pleasant Mound Area



COFFEY COUNTY KANSAS

1963



Explanation of the Checklist and References Used

The checklist consists of the species of vascular plants collected by the author as well as those located in other Kansas herbaria. The following herbaria were checked for plants not personally collected by the author: Kansas State Teachers College (KSTC), Emporia; Kansas State University (KSC), Manhattan; Kansas State College (KSP), Pittsburg, and the University of Kansas (KANU), Lawrence. Those species found in these herbaria are indicated by the abbreviation for the herbarium (Lanjouw and Staflew, 1964). The species personally collected are housed in the Kansas State Teachers College herbarium.

The checklist follows the arrangement of families given in the Flora of Missouri (Steyermark, 1964). Within each family the genera and species are arranged alphabetically. Phenological and ecological data and the common name (when available) are listed for each species. This information includes flower colour, habitats, flowering dates, and growth type. Native and naturalized plants as well as common escapes (indicated by an E) are included in the checklist.

The Manual of the Grasses of the United States (Hitchcock, 1951), Gray's Manual of Botany (Fernald, 1950) and A Manual of the Flowering Plants of Kansas (Barkley, 1968) as well as various recent monographs and revisions were also used in identifying the various species collected.

Summary

Coffey County contains 98 families (4 Polypodiatae, 2 Gymnospermae, 14 Monocotyledoneae and 78 Dicotyledoneae), 359 genera (12 Polypodiatae, 2 Gymnospermae, 76 Monocotyledoneae and 269 Dicotyledoneae) and a total of 674 species. The number of genera per family ranges from one in several families to 42 genera and 87 species in the Compositae and 43 genera and 73 species in the Gramineae. The number of families, genera and species of each of the classes are shown in Table IV; the number of genera and species in the fifteen largest families in Table V; and the number of species in the twenty largest genera in Table VI.

Table IV. Number of families, genera and species in the Polypodiatae, Gymnospermae, Monocotyledoneae and Dicotyledoneae.

Class	Families	Genera	Species
Polypodiatae	4	12	12
Gymnospermae	2	2	2
Monocotyledoneae	14	76	157
Dicotyledoneae	78	269	503

Table V. Number of genera and species in the fifteen largest families.

Family	Genera	Species	Family	Genera	Species
Gramineae	43	73	Cyperaceae	8	39
Compositae	42	87	Rosaceae	8	18
Leguminosae	25	48	Polypodiaceae	8	8
Cruciferae	17	29	Euphorbiaceae	4	15
Labiatae	16	20	Solanaceae	4	10
Umbelliferae	15	18	Convolvulaceae	3	11
Liliaceae	10	18	Polygonaceae	2	17
Scrophulariaceae	10	16			

Table VI. Number of species in the twenty largest genera.

Genus	No. of Species	Genus	No. of Species
<u>Carex</u>	14	<u>Verbena</u>	7
<u>Polygonum</u>	13	<u>Desmodium</u>	6
<u>Quercus</u>	11	<u>Oenothera</u>	6
<u>Cyperus</u>	9	<u>Plantago</u>	6
<u>Euphorbia</u>	9	<u>Prunus</u>	6
<u>Asclepias</u>	8	<u>Viola</u>	6
<u>Eleocharis</u>	8	<u>Aster</u>	5
<u>Helianthus</u>	7	<u>Bidens</u>	5
<u>Juncus</u>	7	<u>Lactuca</u>	5
<u>Panicum</u>	7	<u>Trifolium</u>	5

Vascular Plants of Coffey County, Kansas

Class POLYPODIATAE

Fam. 1 OPHIOGLOSSACEAE (Adder's-tongue Family)

1. Botrychium Sw. Grape Fern

1. B. virginianum (L.) Sw. Grape Fern. Perennial; rich, rocky oak-hickory timber. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3876.

2. Ophioglossum L. Adder's-tongue

1. O. Engelmanni Prantl Adder's-tongue. Perennial; shaded rocky hillsides. 1 mile N and 1 E of Waverly on US 50; L. K. Magrath 3836.

Fam. 2 SALVINIACEAE (Water Fern Family)

1. Azolla Lam. Water Velvet

1. A. mexicana Presl Water Velvet. Annual or weak perennial; shallow pools of water, roadside ditches. 2 miles E and 2 S of LeRoy; L. K. Magrath 3291-1.

Fam. 3 MARSILEACEAE (Pepperwort Family)

1. Marsilea L. Water Clover

1. M. vestigata Hook. Midland Water Clover. Perennial; shallow pools of water. Vicinity of Burlington; J. F. True (KSU).

Fam. 4 POLYPODIACEAE (Polypody Family)

1. Adiantum L. Maidenhair Fern

1. A. pedatum L. Maidenhair Fern. Perennial; wooded areas. 6 miles SE of Burlington; R. L. McGregor 918 (KANU).

2. Asplenium L. Spleenwort

1. A. platyneuron (L.) Oakes Ebony Spleenwort. Perennial; stone outcrops in wooded areas. 5 1/4 miles N of Aliceville; L. K. Magrath 3042.

3. Camptosorus Link Walking Fern

1. C. rhizophyllum (L.) Link Walking Fern. Perennial; rock outcrops in wooded areas. s. l.; R. L. McGregor 920 (KANU).

4. Cystopteris Bernh. Bladder Fern

1. C. tennesseensis Shaver Bladder Fern. Perennial; sandstone bluffs and outcrops in wooded areas. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3820.

5. Dryopteris Adans. Shield Fern

1. D. marginalis (L.) A. Gray Marginal Shield Fern. Perennial; wooded areas. s. l.; R. L. McGregor 908 (KANU).

6. Notholaena R. Br. Cloak-Fern

1. N. dealbata (Pursh) Kunze Cloak-Fern. Perennial; rock outcrops in wooded areas. 7 miles SE of Burlington; R. L. McGregor 910 (KANU).

7. Pellaea Link Cliff-Brake

1. P. atropurpurea (L.) Link Purple Cliff-Brake. Perennial; moist rocky areas. s. l.; R. L. McGregor 913 (KANU).

8. Woodsia R. Br. Woodsia

1. W. obtusa (Spreng.) Torr. Blunt-lobed Woodsia. Perennial; rock outcrops in wooded areas. 5 1/4 miles N of Aliceville; L. K. Magrath 3043.

Class GYMNOSPERMAE

Fam. 5 PINACEAE (Pine Family)

1. Pinus L. Pine

1. P. echinata Mill Short-leaf Pine. Tree; occasional escape near areas where previously planted. 3 miles E and 4 N of LeRoy; L. K. Magrath 3315.

Fam. 6 CUPRESSACEAE (Cypress Family)

1. Juniperus L. Cedar

1. J. virginiana L. Red Cedar. Tree; pastures, hilly areas, rocky outcrops, open wooded areas. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 1570.

Class ANGIOSPERMAE

Subclass MONOCOTYLEDONEAE

Fam. 7 TYPHACEAE (Cat-tail Family)

1. Typha L. Cat-tail

1. T. latifolia L. Common Cat-tail. Perennial; flowers green, brown in fruit; edges of ponds, lakes, streams, sloughs and marshy areas; May-July. 3 miles W of Burlington; L. K. Magrath 804.

Fam. 8 SPARGANIACEAE (Bur-reed Family)

1. Sparganium L. Bur-reed

1. S. eurycarpum Engelm. Bur-reed. Perennial; flowers white; edges of ponds, wet sloughs, marshy areas; May-August. 3 miles S and 1/2 W of Waverly; L. K. Magrath 2484.

Fam. 9 ALISMACEAE (Water Plantain Family)

1. Alisma L. Water Plantain

1. A. Plantago-aquatica L. Water Plantain. Perennial; flowers white; edges of ponds and streams, sloughs, marshy areas; May-September. 3 miles S and 1/2 W of Waverly; L. K. Magrath 1049.

2. Sagittaria L. Arrowhead

1. S. Engelmanniana J. G. Sm. subsp. brevirostra (Mack. & Bush) Bogin Arrowhead. Perennial; flowers white; edges of ponds, sloughs, marshy areas; June-October. 3 miles S and 1/2 W of Waverly; L. K. Magrath 1048.
2. S. graminea Michx. Narrow-leaved Arrowhead. Perennial; flowers white; edges of ponds, sloughs, marshy areas; May-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 3014.

Fam. 10 GRAMINEAE (Grass Family)

1. Agropyron Gaertn. Wheat Grass

1. A. smithii Rydb. Western Wheat Grass. Perennial; prairie areas, roadsides; May-August. 6 miles N of Hartford; L. K. Magrath 1912.

2. Agrostis L. Bent Grass

1. A. alba L. Redtop. Perennial; prairies, pastures; June-August. 1 mile N and 2 E of Aliceville; L. K. Magrath 2568.
2. A. hyemalis (Walt.) BSP. Winter Bent Grass. Annual; disturbed areas, roadside ditches; June-August. 6 miles N of Hartford; L. K. Magrath 1927.

3. Alopecurus L. Foxtail

1. A. carolinianus Walt. Carolina Foxtail. Annual; prairie meadows, roadsides; April-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 1975.

4. Andropogon L. Beard Grass

1. A. gerardi Vitman Big Bluestem. Perennial; prairie meadows, pastures, roadsides; June-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 558.
2. A. saccharoides Swartz. Silver Beardgrass. Perennial; prairies, pastures, roadsides; July-October. 5 miles S and 4 E of Waverly; L. K. Magrath 1101.
3. A. scoparius Michx. Little Bluestem. Perennial; prairies, pastures, roadsides; August-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 553.

5. Aristida L. Three-awn Grass

1. A. oligantha Michx. Prairie Three-awn Grass. Annual; roadside ditches, waste areas; August-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1223.

6. Avena L. Oats

1. A. sativa L. Oats. Annual; roadsides, edges of fields; May-June. E. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 140.

7. Bouteloua Lag. Grama Grass

1. B. curtipendula (Michx.) Torr. Sideoats Grama. Perennial; prairies, pastures, roadsides; July-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1126.
2. B. hirsuta Lag. Hairy Grama. Perennial; prairies, pastures, roadsides; July-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1140.

8. Bromus L. Brome Grass

1. B. inermis Leyss Smooth Brome. Perennial; pastures, roadsides, waste areas; May-August. Naturalized. 1 mile S of Burlington; J. S. Wilson 7833 (KSTC).
2. B. japonicus Thunb. Japanese Brome. Annual; overgrazed pastures, roadsides, disturbed areas; May-July. 2 miles W and 3/4 S of Gridley; L. K. Magrath 828.
3. B. nottowayanus Fern. Perennial; wooded areas; July-August. 3 miles N and 1 W of Aliceville; L. K. Magrath 2543.
4. B. tectorum L. Downy Chess. Annual; overgrazed pastures, roadsides, waste areas; April-June. 2 miles E of Burlington; L. K. Magrath 876.

9. Buchloë L. Buffalo Grass

1. B. dactyloides (Nutt.) Engelm. Buffalo Grass. Perennial; pastures, dry and waste areas, roadsides; May-August. Kelly Park in Burlington; L. K. Magrath 888.

10. Cenchrus L. Sandbur

1. C. incertus M. A. Curtis Sandbur. Annual; waste areas, roadsides, pastures; May-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 544.

11. Chloris Swartz Windmill Grass

1. C. verticillata Nutt. Windmill Grass. Perennial; prairies, pastures, roadsides, waste areas; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 3166.

12. Dactylis L. Orchard Grass

1. D. glomerata L. Orchard Grass. Perennial; roadsides, pastures, edges of wooded areas; May-August. 7 miles N and 2 W of Westphalia; L. K. Magrath 366.

13. Diarrhena Beauv.

1. D. americana Beauv. Perennial; wooded areas; July-September. 3 miles N and 1 W of Aliceville; L. K. Magrath 1428.

14. Digitaria Heister Crab-Grass

1. D. filiformis (L.) Koel. Slender Crab-Grass. Annual; waste and disturbed areas, roadsides, pastures; August-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1380.
2. D. sanguinalis (L.) Scop. Common Crab-Grass. Annual; waste and disturbed areas, roadsides, pastures; July-November. 5 miles S and 4 E of Waverly; L. K. Magrath 1106.

15. Echinochloa Beauv. Barnyard Grass

1. E. crusgalli (L.) Beauv. Barnyard Grass. Annual; waste and disturbed areas, barnyards, roadsides; June-November. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 550.

16. Eleusine Gaertn. Goose Grass

1. E. indica (L.) Gaertn. Goose Grass. Annual; waste and disturbed areas, roadsides; July-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 554.

17. Elymus L. Wild Rye

1. E. canadensis L. Canada Wild Rye. Perennial; waste and disturbed areas, roadsides, pastures; June-October. 3 miles W of Burlington; L. K. Magrath 806.

2. E. riparius Wiegand Perennial; prairies, pastures, roadsides; July-September. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 2099.
3. E. villosus Muhl. Perennial; prairies, pastures, roadsides; June-September. 6 miles N of Hartford; L. K. Magrath 969.
4. E. virginicus L. Wild Rye. Perennial; prairies, pastures, roadsides; May-September. 1 mile S of Burlington; J. S. Wilson 7829 (KSTC).

18. Eragrostis Beauv. Love Grass

1. E. cilianensis (All.) Lutali Stink Grass. Annual; waste and disturbed areas, roadsides, pastures; June-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1184.
2. E. pilosa (L.) Beauv. India Love Grass. Annual; waste and disturbed areas, roadsides; July-October. 3 miles W of Burlington; L. K. Magrath 1458.
3. E. spectabilis (Pursh) Steud. Purple Love Grass. Perennial; prairies, pastures, roadsides; July-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 3167.

19. Eriochloa H.B.K. Cup Grass

1. E. contracta Hitchc. Prairie Cup Grass. Annual; prairies, pastures, waste areas; July-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 545.

20. Festuca L. Fescue

1. F. elatior L. Meadow Fescue. Perennial; prairies, pastures, roadsides; June-August. 1 mile S and 1 3/4 W of Burlington; L. K. Magrath 2163.
2. F. obtusa Bieler Nodding Fescue. Perennial; wooded areas; June-July. 7 miles N and 2 W of Westphalia; L. K. Magrath 371.
3. F. octoflora Walt. Six-weeks Fescue. Annual; roadsides, pastures; April-June. 1 mile N of Beto Jct. on US 75; L. K. Magrath 2351.

21. Glyceria R. Br. Manna Grass

1. G. striata (Lam.) Hitchc. Fowl Manna-grass. Perennial; wet marshy areas, roadsides; May-July. 1 mile S and 1 3/4 W of Burlington; L. K. Magrath 2162.

22. Hordeum L. Barley

1. H. jubatum L. Foxtail Barley. Perennial; prairies, pastures, roadsides; May-October. 3 miles W of Burlington; L. K. Magrath 797.

2. H. pusillum Nutt. Little Barley. Annual; prairies, pastures, roadsides, waste and disturbed areas; April-June. 7 miles N and 2 W of Westphalia; L. K. Magrath 379.

23. Koeleria Pers. June Grass

1. K. cristata (L.) Pers. June Grass. Perennial; prairies, pastures, roadsides; April-May. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 282.

24. Leersia Swartz White Grass

1. L. virginica Willd. White Grass. Perennial; wet marshy areas, sloughs; June-October. 2 miles W and 1/4 S of Gridley; L. K. Magrath 3275.

25. Leptochloa Chase Feather Grass

1. L. fascicularis (Lam.) Gray Salt Meadow Grass. Annual; marshy areas, sloughs, edges of ponds; July-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1198.

26. Leptoloma Chase Fall Witch Grass

1. L. cognatum (Schultes) Chase Fall Witch Grass. Perennial; prairies, pastures, roadsides; June-October. 1 mile S of Burlington; L. K. Magrath 2335.

27. Muhlenbergia Schreb. Muhly

1. M. frondosa (Poir.) Fern. Satin Grass. Perennial; prairies, pastures, roadsides; August-November. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 543.
2. M. schreberi Gmel. Nimblewill. Perennial; prairies, wooded areas, roadsides; July-November. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 542.

28. Panicum L. Panic Grass

1. P. capillare L. Witch Grass. Annual; prairies, pastures, roadsides, waste areas; July-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1187.
2. P. dichotomiflorum Michx. Fall Panicum. Annual; prairies, pastures, roadsides, disturbed areas; July-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 556.
3. P. lanuginosum Ell. Perennial; prairies, pastures, edges of wooded areas; May-September. 5 1/4 miles N of Aliceville; L. K. Magrath 778.
4. P. linearifolium Scribn. Perennial; prairies, pastures; May-July & July-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 2287.

5. P. scribnerianum Nash Perennial; prairies, pastures, roadsides; May-July (vernal), June-November (autumnal). 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 387.
6. P. sphaerocarpon Ell. Perennial; prairies, pastures, roadsides; May-September (vernal), July-November (autumnal). 2 miles W and 3/4 S of Gridley; L. K. Magrath 2293.
7. P. virgatum L. Switch Grass. Perennial; prairies, pastures, roadsides; July-September. 2 miles S and 1 W of New Strawn; L. K. Magrath 1165.

29. Paspalum L. Paspalum

1. P. ciliatifolium Michx. var. muhlenbergi (Nash) Fern. Perennial; prairies, pastures, roadsides; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1013.
2. P. pubiflorum Rupr. var. glabrum Vasey Perennial; prairies, pastures, roadsides; June-September. 3/4 miles S of Burlington on US 75; L. K. Magrath 905.

30. Phleum L. Timothy

1. P. pratense L. Timothy. Perennial; prairies, pastures, roadsides; May-August. Kelly Park in Burlington; L. K. Magrath 892.

31. Phalaris L. Canary Grass

1. P. caroliniana Walt. Canary Grass. Annual; prairies, roadsides; uncommon; June-October. 5 1/4 miles N of Aliceville; L. K. Magrath 2525.

32. Poa L. Blue Grass

1. P. compressa L. Canada Blue Grass. Perennial; prairies, pastures, roadsides; May-August. 1 mile S of Burlington; J. S. Wilson 7827 (KSTC).
2. P. pratensis L. Kentucky Blue Grass. Perennial; prairies, pastures, roadsides; May-July. 3.7 miles N of Jct. of US 75 and K 57 on US 75; J. S. Wilson 2146 (KSTC).
3. P. sylvestris Gray Sylvan Blue Grass. Perennial; wooded areas; April-June. 1 mile N and 1 1/2 W of Aliceville; L. K. Magrath 1840.

33. Schedonnardus Steud. Tumble Grass

1. S. paniculatus (Nutt.) Trel. Tumble Grass. Perennial; waste and disturbed areas, roadsides; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 2016-1.

34. Setaria Beauv. Foxtail Grass

1. S. faberii Herrm. Nodding Foxtail. Annual; disturbed areas, roadsides, edges of fields; July-October. 5 1/4 miles N of Aliceville; L. K. Magrath 3057.

2. S. lutescens (Wiegel) Hubb. Yellow Foxtail. Annual; prairies, pastures, roadsides, disturbed areas; June-October. 3 miles W of Burlington; L. K. Magrath 1436.
3. S. viridis (L.) Beauv. Green Foxtail. Annual; waste and disturbed areas, cultivated fields, roadsides; June-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 833.

35. Sorghastrum Nash Indian Grass

1. S. nutans (L.) Nash Indian Grass. Perennial; prairies, pastures, roadsides; August-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 552.

36. Sorghum Moench Sorghum

1. S. halepense (L.) Pers. Johnson Grass. Perennial; waste and disturbed areas, roadsides, pastures; July-September. 2 miles S and 1 W of New Strawn; L. K. Magrath 1164.
2. S. vulgare Pers. Sorghum. Annual; disturbed and waste areas, roadsides; June-October. E. 1 mile S of Burlington; L. K. Magrath 1319.

37. Spartina Schreb. Slough Grass

1. S. pectinata Link Slough Grass. Perennial; marshy areas, roadsides, sloughs; June-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 537.

38. Sphenopholis Scribn. Wedge Grass

1. S. obtusata (Michx.) Scribn. Prairie Wedgegrass. Perennial; prairies, pastures; May-July. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 2001.

39. Sporobolus R. Br. Dropseed

1. S. asper (Michx.) Kunth Perennial; prairies, pastures, roadsides; August-October. 2 miles N of Burlington on US 75; K. D. Hall 41a (KSTC).
2. S. cryptandrus (Torr.) Gray Sand Dropseed. Perennial; upland prairies; June-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 834.

40. Tridens Roem. & Schult.

1. T. flavus (L.) Hitchc. Purpletop. Perennial; prairies, pastures, roadsides; July-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 1038.

41. Tripsacum L. Gama Grass

1. T. dactyloides L. Gama Grass. Perennial; prairies, pastures, roadsides; May-September. 5 miles S and 4 E of Waverly; L. K. Magrath 1077.

42. Triticum L. Wheat

1. T. aestivum L. Wheat. Annual; waste areas, roadsides; May-July. E. 1 mile S of Burlington; L. K. Magrath 2314.

43. Uniola L. Spangle Grass

1. U. latifolia Michx. Spangle or Spike Grass. Perennial; wooded areas; June-October. 3 miles N and 1 W of Aliceville; L. K. Magrath 1422.

Fam. 11 CYPERACEAE (Sedge Family)

1. Bulbostylis (Kunth) C. B. Clarke

1. B. capillaris (L.) C. B. Clarke Annual; rocky sloughs and wet areas; rare; July-October. 5 1/4 miles N of Aliceville; L. K. Magrath 2515.

2. Carex L. Sedge

1. C. aggregata Mackenz. Perennial; prairies, roadsides, wet meadows; May-June. 1 mile S of Burlington on US 75; B. Ediger 424 (KSTC).
2. C. brevior (Dew.) Mackenz. Perennial; low wet meadows, pastures, roadsides; May-June. 6 miles N of Hartford; L. K. Magrath 1923.
3. C. Bushii Mackenz. Perennial; prairies, pastures; May-June. 6 miles N of Hartford; L. K. Magrath 1895.
4. C. Davisii Schw. & Torr. Perennial; wooded areas; May-July. 1 mile S of Burlington; L. K. Magrath 2347.
5. C. Frankii Kunth Perennial; low wet prairies, marshy areas, sloughs; May-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 470.
6. C. grvida Bailey Perennial; prairies, pastures, roadsides; May-June. 3 miles N and 1 W of Aliceville; L. K. Magrath 1728.
7. C. grisea Wahl. Perennial; wet meadows, roadsides, prairies; April-July. 2 miles W and 1 S of Aliceville; L. K. Magrath 1759.
8. C. lacustris Willd. Perennial; wet roadside ditches, low meadows, wet prairies; May-July. 1 mile N and 1 1/2 W of Aliceville; L. K. Magrath 1843.
9. C. lasiocarpa Ehrh. Perennial; roadside ditches, wet prairies, roadsides; April-July. 5 miles N and 3 1/4 W of Westphalia; L. K. Magrath 2502.

10. C. laxiflora Lam. Perennial; wooded areas, wet roadside ditches; April-July. 7 miles N and 2 W of Westphalia; L. K. Magrath 376.
11. C. Meadii Dew. Perennial; prairies, roadsides, pastures; March-June. 3.7 miles N of Jct. of US 75 and K 57; J. S. Wilson 2167 (KSTC).
12. C. muhlenbergia Schk. Perennial; prairies, roadside ditches, open woods; May-July. 5 miles N of Burlington on US 75; J. S. Wilson 5736 (KSTC).
13. C. stricta Lam. Perennial; wet meadows, roadsides, prairies; April-June. 2 miles W and 1 S of Aliceville; L. K. Magrath 1758.
14. C. vulpinoidea Michx. Perennial; riverbottoms, marshy areas, sloughs; June-August. 1 mile NE of Agricola on US 50; L. K. Magrath 2394.

3. Cyperus L. Umbrella Sedge

1. C. acuminatus Torr. & Hook Annual; edges of ponds, muddy areas, low areas in cultivated fields; June-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 503.
2. C. esculentus L. Perennial; wet roadside ditches, marshy areas, sloughs; June-October. 1 mile S of Burlington; J. S. Wilson 6911 (KSTC).
3. C. ferruginescens Boeckl. Annual; low wet prairies, marshy areas, sloughs; August-October. 3 1/4 miles N of Gridley; L. K. Magrath 1510.
4. C. filiculmis Vahl Perennial; prairies, pastures, roadsides; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 439.
5. C. inflexus Muhl. Annual; prairies, marshy areas, roadsides; May-October. 2 miles E of Burlington; L. K. Magrath 856.
6. C. ovularis (Michx.) Torr. Hedgehog Club Rush. Perennial; sloughs, roadsides; June-September. 1 mile S and 1 3/4 W of Burlington; L. K. Magrath 2145.
7. C. setigerus Torr. and Hook Perennial; prairies, pastures, roadsides; June-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1142.
8. C. strigosus L. Perennial; marshy areas, sloughs, roadsides; June-October. 3 1/4 miles N of Gridley; L. K. Magrath 1503.
9. C. virens Michx. Perennial; marshy areas, sloughs, roadsides; July-October. 3 miles N of Hartford; L. K. Magrath 987.

4. Eleocharis R. Br. Spike Rush

1. E. acicularis (L.) R. & S. Perennial; edges of ponds, marshy areas, sloughs; July-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 507.

2. E. calva Torr. Perennial; edges of ponds, marshy areas, sloughs; June-September. 1 mile S of Burlington on US 75; L. K. Magrath 2309.
3. E. compressa Sulliv. Perennial; edges of ponds, marshy areas, sloughs; May-July. 5 miles N and 3 1/4 W of Westphalia; L. K. Magrath 1774.
4. E. Engelmanni Steud. Perennial; edges of ponds, marshy areas, sloughs; May-October. 3 miles W of Burlington; L. K. Magrath 3113.
5. E. macrostachya Britt. Perennial; edges of ponds, sloughs, marshy areas; May-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 2002.
6. E. obtusa (Willd.) Schultes Perennial; edges of ponds, sloughs, marshy areas; May-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 405.
7. E. Smallii Britt. Perennial; marshy areas, edges of ponds, sloughs; June-September. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 2061.
8. E. tenuis (Willd.) Schultes var. verrucosa Svenson Perennial; edges of ponds, marshy areas, sloughs; May-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 409.

5. Fimbristylis Vahl

1. F. caroliniana (Lam.) Fern. Perennial; prairies, pastures, roadsides; May-July. 6 miles N of Hartford; L. K. Magrath 1907.

6. Rhynchospora Vahl Beak-rush

1. R. macrostachya Torr. Horned Rush. Perennial; marshy areas in prairies; very rare (third collection for state); June-October. 2 miles W and 3 S of Aliceville; L. K. Magrath 2593.

7. Scirpus L. Bulrush

1. S. americanus Pers. Chairmakes'-rush. Perennial; marshy areas, sloughs; May-September. 6 miles N of Hartford; L. K. Magrath 1875.
2. S. atrovirens Willd. Common Bulrush. Perennial; marshy areas, sloughs, roadsides; May-September. 6 miles N of Hartford; L. K. Magrath 957.
3. S. lineatus Michx. Perennial; marshy areas, sloughs, edges of ponds, roadsides; May-August. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1025.
4. S. validus Vahl Great Bulrush. Perennial; marshy areas, edges of ponds, sloughs; May-September. 1 mile S of Burlington; L. K. Magrath 2307.

8. Scleria Bergius Nut Rush

1. S. triglomerata Michx. Tall Nut Grass. Perennial; upland prairies; May-September. 2 miles W and 1/2 S of Gridley; W. Porter 154 (KSTC).

Fam. 12 ARACEAE (Arum Family)

1. Arisaema Mart. Jack-in-the-Pulpit

1. A. atrorubens (Ait.) Blume Jack-in-the-Pulpit. Perennial; flowers green and purple; wooded areas; April-June. 6 miles N and 2 W of Westphalia; L. K. Magrath 274.
2. A. Dracontium (L.) Schott Green Dragon. Perennial; flowers green; wooded areas; April-June. 5 miles N and 2 W of Westphalia; L. K. Magrath 302.

Fam. 13 LEMNACEAE (Duckweed Family)

1. Lemna L. Duckweed

1. L. minor L. Lesser Duckweed. Annual; rivers, ponds, marshy areas. 2 miles E and 2 S of LeRoy; L. K. Magrath 3283.

Fam. 14 COMMELINACEAE (Spiderwort Family)

1. Commelina L. Day-flower

1. C. communis L. Day-flower. Annual; flowers blue and white; wooded areas, disturbed areas; May-October. 3 miles W of Burlington; L. K. Magrath 3099.
2. C. erecta L. Day-flower. Perennial; flowers blue and white; waste areas, roadsides, wooded areas; May-October. 3 1/4 miles N of Gridley; L. K. Magrath 3089.

2. Tradescantia L. Spiderwort

1. T. bracteata Small Spiderwort. Perennial; flowers blue; prairies, pastures, roadsides; May-July. 2 miles E of Burlington; L. K. Magrath 882.
2. T. ohioensis Raf. Spiderwort. Perennial; flowers blue; prairies, roadsides, pastures; May-July. 5 1/4 miles N of Aliceville; L. K. Magrath 767.

Fam. 15 JUNCACEAE (Rush Family)

1. Juncus L. Rush

1. J. biflorus Ell. Annual; marshy areas, sloughs, roadsides; June-November. 3 miles N of Hartford; L. K. Magrath 1857.

2. J. Dudleyi Wieg. Perennial; marshy areas, sloughs, low wet prairies; May-September. 6 miles N of Hartford; L. K. Magrath 1905.
3. J. interior Wieg. Perennial; prairies, sloughs, marshy areas; May-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath D412.
4. J. marginatus Rostk. Perennial; marshy areas, edges of ponds, sloughs; May-September. 6 1/4 miles N of Aliceville; L. K. Magrath 2523.
5. J. nodatus Coville Perennial; marshy areas, edges of ponds, sloughs; June-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 3025.
6. J. tenuis Willd. Path Rush. Perennial; marshy areas, sloughs, roadsides; May-September. 1 mile N and 1 1/4 W of Westphalia; L. K. Magrath 2548.
7. J. Torreyi Coville Perennial; marshy areas, roadsides, sloughs, edges of ponds; July-October. 5 miles S and 4 E of Waverly; L. K. Magrath 1083.

Fam. 16 LILIACEAE (Lily Family)

1. Allium L. Onion

1. A. canadense L. Wild Garlic. Perennial; flowers pink or white; prairies, pastures, roadsides; May-July. 7 miles N and 2 W of Westphalia; L. K. Magrath 381.
2. A. mutabile Michx. Wild Onion. Perennial; flowers pink, lavender or white; prairies, roadsides; April-June. 7 miles N and 2 W of Westphalia; L. K. Magrath 233.
3. A. sativum L. Garlic. Perennial; flowers white; roadside ditches; May-July. E. 1 mile S of Burlington; J. S. Wilson 7830 (KSTC).
4. A. vineale L. Field Garlic. Perennial; flowers pink, white, greenish; roadside ditches; May-July. E. 1/2 mile S of Burlington; H. A. Stephens (KSTC).

2. Asparagus L. Asparagus

1. A. officinalis L. Garden Asparagus. Perennial; flowers greenish-yellow; roadsides, pastures, fence rows; May-June. E. 1 mile S of Burlington; L. K. Magrath 2305.

3. Camassia Lindl. Wild Hyacinth

1. C. angusta (Engelm. & Gray) Blankinship Wild Hyacinth. Perennial; flowers lavender; prairies, roadsides; May-June. 1 1/2 miles N and 1 W of Waverly; L. K. Magrath 2381.

2. C. scilloides (Raf.) Cory Wild Hyacinth. Perennial; flowers lavender; prairies, roadsides; April-May. 2 miles W and 1/2 S of Gridley; W. Porter 156 (KSTC).

4. Erythronium L. Dog-tooth Violet

1. E. albidum Nutt. White Fawn Lily. Perennial; flowers white; wooded areas; March-May. 1 mile E, 1/2 S and 1/4 W of LeRoy; L. K. Magrath 3760.
2. E. mesochoreum Knerr Prairie Dog-tooth Violet or Wild Easter Lily. Perennial; flowers white; prairies, pastures, roadsides; March-May. 3 miles N and 1/2 W of Aliceville; L. K. Magrath 3751.

5. Hemerocallis L. Day Lily

1. H. fulva L. Orange Day Lily. Perennial; flowers orange; roadsides, fence rows; May-August. E. 1 mile NE of Agricola; L. K. Magrath 2418.

6. Lilium L. Lily

1. L. michiganense Farw. Michigan Lily. Perennial; flowers yellowish-orange; wooded areas; rare; June-July. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3881.
2. L. tigrinum L. Tiger Lily. Perennial; flowers orange; roadsides; July-September. E. 5 1/4 miles N of Aliceville; L. K. Magrath 3030.

7. Nothoscordum Kunth False Garlic

1. N. bivalve (L.) Britton False Garlic. Perennial; flowers white; roadsides, pastures, prairies; March-May. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1631.

8. Polygonatum Mill. Solomon's Seal

1. P. canaliculatum (Muhl.) Pursh Solomon's Seal. Perennial; flowers green; wooded areas; May-June. 7 miles N and 2 W of Westphalia; L. K. Magrath 415.

9. Smilax L. Greenbrier

1. S. ecirrhata (Engelm.) Wats. Carrion-flower. Perennial; flowers green; wooded areas; May-June. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3882.
2. S. herbacea L. Carrion-flower. Perennial; flowers green; wooded areas; May-June. 3 miles N and 1 W of Aliceville; L. K. Magrath 1429.
3. S. tannoides L. var. hispida (Muhl.) Fern. Bristly Greenbrier. Perennial; flowers green; wooded areas; May-June. 7 miles N and 2 W of Westphalia; L. K. Magrath 3177.

10. Yucca L. Bear Grass

1. Y. glauca Nutt. Cardles-of-the-Lord, Soapweed. Perennial; flowers white; roadsides, fence rows; May-July. E. 4 1/2 miles W of Burlington; L. K. Magrath 2300.

Fam. 17 AMARYLLIDACEAE (Amaryllis Family)

1. Hypoxis L. Star Grass

1. H. hirsuta (L.) Coville Yellow Star Grass. Perennial; flowers golden-yellow; prairies, pastures, roadsides; April-May. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 10.

Fam. 18 IRIDACEAE (Iris Family)

1. Iris L. Iris

1. I. pumila L. Dwarf Iris. Perennial; flowers purple; roadsides; March-April. E. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 288.

2. Sisyrinchium L. Blue-eye Grass

1. S. campestre Bickn. Prairie Blue-eye Grass. Perennial; flowers blue to white; prairies, pastures, roadsides; April-June. 3.5 miles N of Jct. of US 75 and K 57; J. S. Wilson 2149 (KSTC).

Fam. 19 ORCHIDACEAE (Orchid Family)

1. Spiranthes Richard Ladies' Tresses

1. S. cernua (L.) Richard var. ochroleuca (Rydb.) Ames Common Ladies' Tresses. Perennial; flowers white; prairies, well managed pastures; August-November. 2.5 miles W of Lebo; K. L. Johnson 1895 and H. Sweet (KANU).
2. S. vernalis Engelm. and Gray Ladies' Tresses. Perennial; flowers white; prairies; June-mid-August. 5 1/4 miles N of Aliceville; L. K. Magrath 3049.

Subclass DICOTYLEDONEAE

Fam. 20 SALICACEAE (Willow Family)

1. Populus L. Poplar

1. P. deltoides Marsh Cottonwood. Tree; roadsides, river flood plains, moist disturbed areas; March-May. 7 miles N and 1 W of Westphalia; L. K. Magrath 3737.
2. P. alba L. Silver Poplar. Tree; roadsides, fence rows; March-May. E. 1 mile SE of Burlington; D. Zscheile 20 (KSTC).

2. Salix L. Willow

1. S. interior Rowlee Sandbar Willow. Tree; shallow stream beds, sandbars; May-June. 5 miles S and 3 1/2 E of Waverly; L. K. Magrath 3197.
2. S. nigra Marsh. Black Willow. Tree; edges of streams and ponds, roadsides; April-May. 1 mile N and 1 1/2 W of Aliceville; L. K. Magrath 1830.

Fam. 21 JUGLANDACEAE (Walnut Family)

1. Carya Nutt. Hickory

1. C. cordiformis (Wang.) K. Koch Bitternut Hickory. Tree; oak-hickory timber, wooded areas; April-May. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 1641.
2. C. illinoensis (Wang.) K. Koch Pecan. Tree; oak-hickory timber; April-May. 2 miles E and 2 S of LeRoy; L. K. Magrath 3304.
3. C. ovata (Mill.) K. Koch Shagbark Hickory. Tree; oak-hickory timber; April-May. 7 miles N and 2 W of Westphalia; L. K. Magrath 3191.

2. Juglans L. Walnut

1. J. nigra L. Black Walnut. Tree; oak-hickory timber, wooded areas; April-May. 7 miles NE of Waverly; F. Arnett 44 (KSTC).

Fam. 22 FAGACEAE (Beech Family)

1. Quercus L. Oak

1. Q. borealis Michx. var. maxima (Marsh.) Ashe Red Oak. Tree; oak-hickory timber, wooded areas; April-May. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3239.
2. Q. macrocarpa Michx. Bur Oak. Tree; oak-hickory timber, wooded areas; April-May. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3241.
3. Q. marilandica Muenchh. Black Jack Oak. Tree; oak-hickory timber, wooded areas; April-May. 1 mile N of Beto Jct. on US75; L. K. Magrath 2359.
4. Q. Muehlenbergii Engelm. Tree; wooded hillsides; April-May. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3885.
5. Q. palustris Muenchh. Pin Oak. Tree; oak-hickory timber, wooded areas; April-May. 5 1/4 miles N of Aliceville; L. K. Magrath 2538.
6. Q. prinoides Willd. Low shrub; tops of wooded hillsides, shrub savannas; April-May. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3885-1.

7. Q. Shumardii Buckl. Shumard Oak. Tree; oak-hickory timber, wooded areas; April-May. 2 miles E and 2 S of LeRoy; L. K. Magrath 3296.
8. Q. velutina Lam. Black Oak. Tree; oak-hickory timber, wooded areas; April-May. 1 mile N of Beto Jct. on US 75; L. K. Magrath 2358.
9. Q. borealis Michx. var. maxima (Marsh) Ashe x Q. palustris Muenchh. Tree; oak-hickory timber; April-May. 2 miles E and 2 S of LeRoy; L. K. Magrath 3297.
10. Q. palustris Muenchh. x Q. Shumardii Buckl. Tree; oak-hickory timber; April-May. 2 miles E and 2 S of LeRoy; L. K. Magrath 3299.
11. Q. Shumardii Buckl. x Q. velutina Lam. Tree; oak-hickory timber; April-May. 2 miles E and 2 S of LeRoy; L. K. Magrath 3294.

Fam. 23 ULMACEAE (Elm Family)

1. Celtis L. Hackberry

1. C. occidentalis L. Hackberry. Tree; flood plains of rivers, wooded areas, fence rows; April-May. 6 miles E of Lebo; W. L. Romary 58 (KSTC).

2. Ulmus L. Elm

1. U. americana L. American Elm. Tree; wooded areas, fence rows, pastures; February-April. 7 miles N and 2 W of Westphalia; L. K. Magrath 1549.
2. U. pumila L. Siberian Elm. Tree; fence rows, roadsides, wooded areas; March-April. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 3676.
3. U. rubra Muhl. Slippery Elm. Tree; wooded areas, river flood plains; February-April. 7 miles N and 2 W of Westphalia; L. K. Magrath 1555.
4. U. pumila L. x U. rubra Muhl. Tree; near railroad right-of-way; February-April. 6 miles N of Hartford; L. K. Magrath 1530.

Fam. 24 MORACEAE (Mulberry Family)

1. Cannabis L. Hemp, Marijuana

1. C. sativa L. Hemp, Marijuana. Annual; flowers green; roadside ditches; rare; June-October. 5 miles S and 4 E of Waverly; L. K. Magrath 3131.

2. Humulus L. Hops

1. H. Lupulus L. Hops. Perennial woody vine; flowers greenish-white; wooded areas, roadsides; July-August. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3227.

3. Maclura Nutt. Osage Orange

1. M. pomifera (Raf.) Schneid Osage Orange. Tree; fence rows, overgrazed pastures; May-June. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 2054.

4. Morus L. Mulberry

1. M. alba L. White Mulberry. Tree; wooded areas, roadsides; April-May. E. 1 mile N of Beto Jct. on US 75; L. K. Magrath 2450.
2. M. rubra L. Red Mulberry. Tree; wooded areas; April-May. 1 mile W of Aliceville; R. Engel 35 (KSTC).

Fam. 25 URTICACEAE (Nettle Family)

1. Laportea Gaud. Wood Nettle

1. L. canadensis (L.) Gaud. Wood Nettle. Perennial; flowers green; wooded areas; May-August. 7 miles N and 2 W of Westphalia; L. K. Magrath 369.

2. Parietaria L. Pellitory

1. P. pensylvanica Muhl. Pellitory. Annual; flowers green; moist open ground, wooded areas; May-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 830.

3. Pilea Lindl. Clearweed

1. P. pumila (L.) Gray Clearweed. Annual; flowers green; wooded areas; July-October. 3 1/4 miles N of Gridley; L. K. Magrath 1513.

4. Urtica L. Nettle

1. U. dioica L. Tall Nettle. Perennial; flowers green; wooded areas; May-October. Kelly Park in Burlington; L. K. Magrath 895.

Fam. 26 POLYGONACEAE (Buckwheat Family)

1. Polygonum L. Knotweed, Smartweed

1. P. aviculare L. Knotweed. Annual; flowers white; disturbed areas, around buildings and streets; May-November. Yard in Burlington; V. Robrahn 26 (KSTC).
2. P. bicornne Raf. Pinkweed. Annual; flowers pink; roadsides, low wet areas, cultivated fields; July-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1189.
3. P. coccineum Muhl. Water Smartweed. Perennial; flowers pink to rosy-pink; wet ditches, marshy areas; June-October. 5 miles N and 3 1/4 W of Westphalia; L. K. Magrath 929.

4. P. convolvulus L. Black Bindweed. Annual; flowers greenish-white; fence rows, roadsides, waste areas; May-November. 6 miles N of Hartford; L. K. Magrath 960.
5. P. lapathifolium L. Smartweed. Annual; flowers white; marshy areas, roadside ditches, sloughs; June-October. 1 mile S of Burlington; L. K. Magrath 1342.
6. P. pensylvanicum L. Pinkweed. Annual; flowers pink to white; sloughs, roadside ditches, marshy areas; June-October. 1 mile S of Burlington; J. S. Wilson 6900 (KSTC).
7. P. Persicaria L. Lady's Thumb. Annual; flowers pink to white; marshy areas, sloughs, roadsides; May-October. 6 miles N of Hartford; L. K. Magrath 975.
8. P. prolificum (Small) Robins Annual; flowers white; waste and disturbed areas, roadsides; July-November. 2 miles S and 1 W of New Strawn; L. K. Magrath 1384.
9. P. punctatum Ell. Water Smartweed. Perennial; flowers white; marshy areas, sloughs, roadsides, waste areas; July-October. 1 mile S of Burlington; J. S. Wilson 6902 (KSTC).
10. P. ramosissimum Michx. Bushy Knotweed. Annual; flowers white; pastures, marshy areas, roadsides; July-October. 1 mile S of Burlington; L. K. Magrath 1339.
11. P. scandens L. False Buckwheat. Perennial; flowers green; fence rows, roadsides, waste areas, fields; July-November. 1 mile S of Burlington; J. S. Wilson 6901 (KSTC).
12. P. tenue Michx. Annual; flowers white; disturbed areas, roadsides; June-October. 1 mile S of Burlington; L. K. Magrath 1337.
13. P. virginianum L. Virginia Knotweed. Perennial; flowers white; wooded areas, shaded areas; July-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1204.

2. Rumex L. Dock

1. R. altissimus Wood Pale Dock. Perennial; flowers green; pastures, roadsides, waste areas; April-May. 1 mile S of Burlington; L. K. Magrath 1661.
2. R. crispus L. Sour Dock. Perennial; flowers green; overgrazed pastures, waste areas, roadsides; April-May. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 469.
3. R. mexicanus Meisn. Perennial; flowers green; pastures, marshy areas, roadsides; April-May. 1 mile S of Burlington; L. K. Magrath 918.

4. R. Patientia L. Patience Dock. Perennial; flowers green; waste ground, roadsides, pastures; April-June. 6 miles N of Hartford; L. K. Magrath 1926.

Fam. 27 CHENOPODIACEAE (Goosefoot Family)

1. Chenopodium L. Goosefoot

1. C. album L. Lamb's Quarters. Annual; flowers green; waste and disturbed areas, roadsides; May-October. 6 miles N of Hartford; L. K. Magrath 944.
2. C. Bushianum Aellen Annual; flowers green; waste areas, roadsides, pastures; August-October. 1 mile S of Burlington; L. K. Magrath 1321.
3. C. hybridum L. Maple-leaved Goosefoot. Annual; flowers green; wooded or shaded areas, roadsides; July-October. 7 miles N and 1 1/2 W of Westphalia; L. K. Magrath 441.
4. C. incanum (S. Wats.) Heller Annual; flowers green; waste areas, roadsides, fields; June-October. 6 miles N of Hartford; L. K. Magrath 958.
5. C. Standleyanum Aellen Annual; flowers green; waste areas, fields; June-October. 3 1/2 miles S and 2 E of Halls Summit; L. K. Magrath 1113.

2. Kochia Roth Summer Cypress

1. K. scoparia (L.) Schrad. Fire Bush. Annual; waste ground, roadsides, fields, pastures; July-October. 6 miles N of Hartford; L. K. Magrath 977.

Fam. 28 AMARANTHACEAE (Amaranth Family)

1. Amaranthus L. Amaranth, Pigweed

1. A. retroflexus L. Rough Green Amaranth. Annual; flowers green; waste and disturbed areas, fields, roadsides; July-October. 7 miles N and 2 W of Westphalia; L. K. Magrath 1037.
2. A. tamariscinus Nutt. Water Hemp. Annual; flowers green; cultivated fields, waste and disturbed areas, roadsides; July-October. 2 miles N of Hartford; L. K. Magrath 1410.

Fam. 29 NYCTAGINACEAE (Four-o'clock Family)

1. Mirabilis L. Four-o'clock

1. M. albida (Walt.) Heimerl Pale Four-o'clock. Perennial; flowers lavender to cream; prairies, roadsides; uncommon; May-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1118.

2. M. linearis (Pursh) Heimerl Narrow-leaved Four-o'clock. Perennial; flowers red-violet to lavender; prairies, roadsides; uncommon; May-October. 6 miles N of Hartford; L. K. Magrath 952.
3. M. nyctaginea (Michx.) MacM. Wild Four-o'clock. Perennial; flowers red-violet; prairies, waste areas, roadsides; May-October. 1 3/4 miles E of Burlington; L. K. Magrath 36.

Fam. 30 PHYTOLACCACEAE (Pokeweed Family)

1. Phytolacca L. Pokeweed

1. P. americana L. Pokeweed. Perennial; flowers pinkish-white; wooded or shaded areas, waste areas, fence rows, roadsides; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 63.

Fam. 31 AIZOACEAE (Carpet-weed Family)

1. Mollugo L. Carpet-weed

1. M. verticillata L. Carpet-weed. Annual; flowers white; cultivated and waste ground, roadsides; May-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 481.

Fam. 32 PORTULACACEAE (Purslane Family)

1. Claytonia L. Spring Beauty

1. C. virginica L. Spring Beauty. Perennial; flowers pink-white; prairies, pastures, yards, wooded areas; February-May. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 283.

2. Portulaca L. Purslane

1. P. oleracea L. Purslane. Annual; flowers yellow; cultivated and waste areas; June-November. G. L. Clothier and H. N. Whitford (KSC).

3. Talinum Adans. Rock Pink

1. T. parviflorum Nutt. Rock Pink. Perennial; flowers pink; rocky outcrops in prairies, sloughs or wooded areas; rare; May-August. 5 1/4 miles N of Aliceville; L. K. Magrath 2516.

Fam. 33 CARYOPHYLLACEAE (Pink Family)

1. Arenaria L. Sandwort

1. A. serpyllifolia L. Thyme-leaved Sandwort. Annual; flowers green; fields, yards, roadsides, waste areas; April-August. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 492.

2. Cerastium L. Mouse-ear Chickweed

1. C. brachypodum (Engelm.) Robins Short-stalked Chickweed. Annual; flowers white; pastures, roadsides, disturbed areas; March-June. 1 mile N and 1 E of Waverly on US 50; L. K. Magrath 3839.

3. Dianthus L. Pink

1. D. Armeria L. Deptford Pink. Annual or biennial; flowers rosy-pink; rich moist prairies, roadsides; May-October. 2 miles W of Gridley; W. Porter 153 (KSTC).

4. Holosteum L. Jagged Chickweed

1. H. umbellatum L. Jagged Chickweed. Annual; flowers white; roadsides, pastures, waste areas; March-May. 3 miles N and 1 W of Aliceville; L. K. Magrath 3743.

5. Saponaria L. Bouncing Bet

1. S. officinalis L. Bouncing Bet. Perennial; flowers pale pink; roadsides, fence rows; June-October. E. 7 miles N and 1 1/2 W of Westphalia; L. K. Magrath 443.

6. Silene L. Catchfly

1. S. antirrhina L. Sleepy Catchfly. Annual or biennial; flowers white; prairies, roadsides; May-September. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 996.
2. S. stellata (L.) Ait. Starry Champion. Perennial; flowers white; wooded areas; June-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 416.

7. Stellaria L. Chickweed

1. S. media (L.) Cyrill Chickweed. Annual; flowers greenish; waste areas, roadsides, yards; January-December. 3 miles N of Hartford; L. K. Magrath 1686.

Fam. 34 NYMPHAEACEAE (Water Lily Family)

1. Nelumbo Adans. American Lotus

1. N. lutea (Willd.) Pers. American Lotus. Perennial; flowers greenish-yellow; shallow areas of ponds and lakes; June-September. 1/2 mile E of the city limits of Burlington; D. Zscheile 1 (KSTC).

Fam. 35 ANNONACEAE (Custard Apple Family)

1. Asimina Adans. Pawpaw

1. A. triloba (L.) Dunal Pawpaw. Tree; flowers chocolate brown; wooded areas; March-May. 7 miles N and 2 W of Westphalia; L. K. Magrath 1585.

Fam. 36 RANUNCULACEAE (Crowfoot Family)

1. Anemone L. Anemone

1. A. caroliniana Walt. Prairie Anemone. Perennial; flowers white, blue, or blue and white; prairies; late March-May. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 282.

2. Clematis L. Clematis

1. C. Pitcheri T. & G. Leather Flower. Perennial vine; flowers bluish-purple; roadsides, wooded areas; May-September. 1 mile S of Burlington; L. K. Magrath 909.

3. Delphinium L. Larkspur

1. D. Ajacis L. Rocket Larkspur. Annual; flowers purple, pink or white; waste areas, roadsides; May-September. E. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 418.

2. D. virescens Nutt. Prairie Larkspur. Perennial; flowers white; prairies, pastures, roadsides; May-July. 5 miles E of Burlington; L. K. Magrath 34-4.

4. Isopyrum L. False Rue Anemone

1. I. biternatum (Raf.) T. & G. False Rue Anemone. Perennial; flowers white; wooded areas; March-May. 1 mile E, 1/2 S and 1/4 W of LeRoy; L. K. Magrath 3753.

5. Myosurus L. Mousetail

1. M. minimus L. Mousetail. Annual; flowers green; disturbed and waste areas, roadside ditches; March-May. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 237.

6. Ranunculus L. Buttercup

1. R. abortivus L. Small-flowered Crowfoot. Annual; flowers yellow; edges of ponds and sloughs, marshy areas, wet roadsides; March-June. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 286.

7. Thalictrum L. Meadow Rue

1. T. dasycarpum Fisch. & Lall. Purple Meadow Rue. Perennial; flowers greenish-white; wooded areas; May-July. 7 miles N and 2 W of Westphalia; L. K. Magrath 380.

Fam. 37 BERBERIDACEAE (Barberry Family)

1. Podophyllum L. May Apple

1. P. peltatum L. May Apple. Perennial; flowers white; wooded areas; late March-May. 3 miles N and 1 W of Aliceville; L. K. Magrath 3728.

Fam. 38 MENISPERMACEAE (Moonseed Family)

1. Menispermum L. Moonseed

1. M. canadense L. Moonseed. Perennial; flowers greenish; wooded areas; vine; May-July. 2 miles E and 2 S of LeRoy; L. K. Magrath 3288.

Fam. 39 PAPAVERACEAE (Poppy Family)

1. Papaver L. Poppy

1. P. dubium L. Blind Eyes. Annual; flowers red; roadsides, waste areas; May-July. E. Roadside ditch in Gridley; L. K. Magrath 2303.
2. P. somniferum L. Opium Poppy, Common Poppy. Annual; flowers pink with blue spots; roadsides, waste areas; May-September. E. Roadside ditch in Gridley; L. K. Magrath 2303-1.

Fam. 40 FUMARIACEAE (Fumitory Family)

1. Corydalis Medic. Corydalis

1. C. micrantha (Engelm.) Gray Small-flowered Corydalis. Annual; flowers yellow; disturbed and waste ground, roadsides, fields; April-June. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 265.

2. Dicentra Bernh. Bleeding Heart

1. D. Cucullaria (L.) Bernh. Dutchman's Breeches. Perennial; flowers pink; wooded areas; March-May. 7 miles N and 2 W of Westphalia; L. K. Magrath 255.

Fam. 41 CRUCIFERAE (Mustard Family)

1. Arabis L. Rock Cress

1. A. canadensis L. Sickle-pod. Biennial or perennial; flowers white; wooded areas; uncommon; April-June. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3866.
2. A. Shortii (Fern.) Gl. Rock Cress. Biennial; flowers white; wooded areas; April-June. 3 miles N and 1 W of Aliceville; L. K. Magrath 1713.

2. Barbarea R. Br. Winter Cress

1. B. vulgaris R. Br. Yellow Rocket. Biennial; flowers yellow; disturbed and waste areas; April-June. E. 5 miles N and 3 1/4 W of Westphalia; L. K. Magrath 1707.

3. Brassica L. Mustard

1. B. hirta Moench White Mustard. Annual; flowers yellow; railroad right-of-ways, waste areas; April-July. E. 6 miles N of Hartford; L. K. Magrath 972.
2. B. juncea (L.) Coss. Leaf Mustard. Annual; flowers yellow; waste areas; April-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 271.
3. B. Kaber (DC.) L. C. Wheeler Charlock. Annual; flowers yellow; waste and disturbed areas, roadsides; April-July. 4 miles N of Woodson County line on US 75; W. T. Barker and J. L. Carter 411 (KSTC).
4. B. nigra (L.) Kock Black Mustard. Annual or biennial; flowers yellow; waste areas, roadsides; April-November. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1545.

4. Camelina Crantz False Flax

1. C. sativa (L.) Crantz False Flax. Annual; flowers yellow; roadsides, waste areas, pastures; April-August. 5 miles N of Burlington on US 75; J. S. Wilson and G. Tucker 5730 (KSTC).

5. Capsella Medic. Shepard's Purse.

1. C. Bursa-pastoris (L.) Medic. Shepard's Purse. Winter annual; flowers white; waste areas, lawns, pastures, roadsides; March-May. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath D264.

6. Cardamine L. Bitter Cress

1. C. parviflora L. Small Bitter-flowered Cress. Annual or biennial; flowers white; disturbed and waste areas; March-July. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 419.
2. C. pennsylvanica Muhl. Bitter Cress. Perennial; flowers white; waste areas, roadsides; March-July. 6 miles N of Hartford; L. K. Magrath 1699.

7. Dentaria L. Toothwort

1. D. laciniata Muhl. Toothwort. Perennial; flowers white to pink; March-May. 7 miles N and 2 W of Westphalia; L. K. Magrath 275.

8. Descurainia Webb. & Berth. Tansy Mustard

1. D. pinnata (Walt.) Britt. Tansy Mustard. Annual or biennial; flowers yellow; waste areas, roadsides; March-May. 3.7 miles N of Jct. of US 75 and K 57; J. S. Wilson 2154 (KSTC).

9. Draba L. Whitlow Grass

1. D. brachycarpa Nutt. Whitlow Grass. Annual or biennial; flowers white; pastures, waste areas, roadsides, lawns; March-April. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1953.
2. D. cuneifolia Nutt. Winter annual; flowers white; waste areas, roadsides; February-May. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 252.
3. D. reptans (Lam.) Fern. Annual or biennial; flowers white; waste areas, roadsides, fields; February-May. 6 miles N of Hartford; L. K. Magrath 1692.
4. D. verna L. Vernal Whitlow Grass. Winter annual; flowers white; waste areas, roadsides, pastures; 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1561.

10. Erysimum L. Wall-flower

1. E. inconspicuum (S. Wats.) MacM. Wall-flower. Biennial; flowers yellow; waste areas, roadsides; May-June. 3.7 miles N of Jct. of US 75 and K 57 on US 75; J. S. Wilson 2161 (KSTC).
2. E. repandum L. Treacle Mustard. Biennial; flowers yellow; roadsides, waste areas; April-June. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 270.

11. Hesperis L. Dame's Rocket

1. H. matronalis L. Dame's Rocket. Biennial; flowers lavender; waste areas, roadsides; May-June. E. 1 1/2 miles N and 1 W of Waverly; L. K. Magrath 2380.

12. Lepidium L. Pepper Grass

1. L. oblongum Small Pepper Grass. Annual or biennial; flowers white; roadsides, waste areas, pastures; April-May. 1 mile N and 1 E of Waverly; L. K. Magrath 3852.
2. L. virginicum L. Pepper Grass. Annual or biennial; flowers white; yards, waste areas, roadsides; March-November. 1 mile S of US 50 on Lyon-Coffey county line; D. Bosanko 212 (KSTC).

13. Raphanus L. Radish

1. R. sativus L. Radish. Annual or biennial; flowers white to pink; waste areas; May-August. E. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 402.

14. Rorippa Scop. Yellow Cress

1. R. islandica (Oeder.) Borbas Marsh Yellow Cress. Annual or biennial; flowers yellow; disturbed or waste areas, roadsides; May-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 289.
2. R. sessiliflora (Nutt.) Hitchc. Sessile-flowered Cress. Annual or biennial; flowers yellow; waste areas, roadsides; April-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 290.

15. Sibara Greene

1. S. virginica (L.) Rollins Annual or biennial; flowers white; disturbed and waste areas, roadsides; March-May. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 253.

16. Sisymbrium L. Hedge Mustard

1. S. officinale (L.) Scop. Hedge Mustard. Annual or biennial; flowers white; waste areas, roadsides; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 295.

17. Thlaspi L. Penny Cress

1. T. arvense L. Field Penny Cress. Annual; flowers white; roadsides, waste and disturbed areas; April-June. 3.7 miles N of Jct. of US 75 and K 57 on US 75; J. S. Wilson 2157 (KSTC).
2. T. perfoliatum L. Perfoliate Penny Cress. Annual; flowers white; roadsides, waste areas; March-May. 3 miles N and 1/2 W of Aliceville; L. K. Magrath 3744.

Fam. 42 SAXIFRAGACEAE (Saxifrage Family)

1. Penthorum L. Ditch Stonecrop

1. P. sedoides L. Ditch Stonecrop. Perennial; flowers orange; marshy areas, sloughs, roadsides; July-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1487.

2. Ribes L. Current

1. R. missouriense Nutt. Missouri Gooseberry. Shrub; flowers greenish; wooded areas, cut-over areas; April-May. 3 1/4 miles N of Gridley; L. K. Magrath 1618.
2. R. odoratum Wendland Golden Current. Shrub; flowers yellow; fence rows, roadsides; April-June. E. 3 miles W of Burlington; L. K. Magrath 1573.

Fam. 43 PLATANACEAE (Plane Tree Family)

1. Platanus L. Sycamore

1. P. occidentalis L. Sycamore. Tree; river bottoms, lowlands, wooded areas; April-June. 5 miles N and 1 E of Aliceville; R. Engel 6 (KSTC).

Fam. 44 ROSACEAE (Rose Family)

1. Agrimonia L. Agrimony

1. A. pubescens Wallr. Agrimony. Perennial; flowers yellow; wooded and waste areas; July-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 119.

2. Crataegus L. Hawthorn

1. C. mollis (T. & G.) Scheele Summer Haw. Tree; flowers white; wooded areas; April. 7 miles N and 1 1/4 W of Westphalia; L. K. Magrath 3168.

3. Fragaria L. Strawberry

1. F. virginiana Duchesne Wild Strawberry. Perennial; flowers white; prairies, roadsides; April-May. 3 1/4 miles N of Gridley; L. K. Magrath 1619.

4. Geum L. Avens

1. G. canadense Jacq. White Avens. Perennial; flowers white; wooded areas, roadsides; May-October. 2 miles W and 1/2 S of Gridley; W. Porter 148 (KSTC).

5. Potentilla L. Cinquefoil

1. P. recta L. Rough-fruited Cinquefoil. Perennial; flowers yellow; roadsides, prairies, waste areas; May-August. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 236.
2. P. simplex Michx. Cinquefoil. Perennial; flowers yellow; prairies, open wooded areas, roadsides; April-June. 8 miles NE of Burlington; D. Bell 9 (KSTC).

6. Prunus L. Plum

1. P. americana Marsh Wild Plum. Shrub; flowers white; wooded areas, roadsides, pastures; April-May. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 279.
2. P. Cerasus L. Sour Cherry. Tree; flowers white; fence rows, roadsides; April-May. E. 7 miles N and 1 1/2 W of Westphalia; L. K. Magrath 3172.
3. P. hortulana Baily Wild Goose Plum. Tree or shrub; flowers white; wooded areas; March-May. 7 miles N and 1 1/2 W of Westphalia; L. K. Magrath 3170.

4. P. Munsoniana Wight & Hedrick Wild Goose Plum. Tree; flowers white; wooded areas; March-May. 1 mile S of Burlington; L. K. Magrath 2306.
5. P. Persica (L.) Batsch Peach. Tree; flowers pink; fence rows, roadsides; March-April. E. 3 miles N of Hartford; L. K. Magrath 1676.
6. P. serotina Ehrh. Black Cherry. Tree; flowers white; wooded areas, roadsides; April-May. 5 1/4 miles N of Aliceville; L. K. Magrath 3044.

7. Rosa L. Rose

1. R. arkansana Porter var. suffulta (Greene) Cockerell Wild Rose. Shrub; flowers pink; prairies, fence rows, roadsides; May-July. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1988.
2. R. carolina L. Pasture Rose. Shrub; flowers pink; prairies, pastures, fence rows; May-June. 2 miles W and 3/4 S of Gridley; L. K. Magrath 843.
3. R. setigera Michx. Prairie Rose. Shrub; flowers pink; prairies, fence rows, roadsides; May-July. 5 1/4 miles N and 3 W of Westphalia; L. K. Magrath 2496.

8. Rubus L. Bramble

1. R. Enslenii Tratt. Pasture Berry. Shrub; flowers white; prairies, roadsides, fence rows; April-June. 6 miles N of Hartford; L. K. Magrath 1873.
2. R. occidentalis L. f. occidentalis Black Raspberry. Shrub; flowers white; wooded areas; April-June. E. 7 miles N and 1 1/2 W of Westphalia; L. K. Magrath 3169.
3. R. pensilvanicus Poir. High-bush Blackberry. Shrub; flowers white; wooded areas; prairies; April-June. 6 miles E of Lebo S of US 50; W. L. Romary 62 (KSTC).

Fam. 45 LEGUMINOSAE (Pea Family)

1. Amorpha L. Lead Bush

1. A. canescens Pursh Lead Plant. Low Shrub; flowers purple and gold; prairies, roadsides; May-August. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 1003.
2. A. fruticosa L. False Indigo. Shrub; flowers purple and gold; roadsides, marshy areas, edges of ponds and sloughs; May-June. 6 miles E of Lebo S of US 50; W. L. Romary 61 (KSTC).

2. Amphicarpa Ell. Hog Peanut

1. A. bracteata (L.) Fern. Hog Peanut. Perennial; flowers white to pale lavender; wooded areas; August-September. 3 1/4 miles N of Gridley; L. K. Magrath 1520.

3. Apios Medic. Groundnut

1. A. americana Medic. Groundnut. Perennial; flowers maroon and pink; fence rows, edges of wooded areas, prairies; June-September. 5 miles S and 4 E of Waverly; L. K. Magrath 3212.

4. Astragalus L. Milk Vetch

1. A. canadensis L. Rattleweed. Perennial; flowers white; prairies, roadsides; May-August. 3 miles N of Hartford; L. K. Magrath 984.
2. A. caryocarpus Ker. Ground Plum. Perennial; flowers red-violet; prairies, pastures; April-May. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 284.

5. Baptisia Vent. False Indigo

1. B. australis (L.) R. Br. var. minor (Lehm.) Fern. Blue False Indigo. Perennial; flowers blue; prairies, pastures, roadsides; May-June. 2 miles W and 3/4 S of Gridley; L. K. Magrath 840.
2. B. leucantha T. & G. White Wild Indigo. Perennial; flowers white; prairies, pastures, roadsides; May-July. 3 miles N of Hartford; L. K. Magrath 985.
3. B. leucophaea Nutt. Long-bracted Wild Indigo, Cow Pea. Perennial; flowers pale yellow; prairies, pastures, roadsides; April-June. 5 1/4 miles N of Aliceville; L. K. Magrath 1760.

6. Cassia L. Senna

1. C. fasciculata Michx. Partridge Pea. Annual; flowers yellow; prairies, waste areas, roadsides; June-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 252.
2. C. marilandica L. Wild Senna. Perennial; flowers pale yellow; wooded areas, wet roadsides; July-August. 3 miles S and 1/2 W of Waverly; L. K. Magrath 1053.

7. Cercis L. Redbud

1. C. canadensis L. Eastern Redbud. Tree; flowers pale pink to rose; wooded areas; March-May. 3 1/4 miles N of Gridley; L. K. Magrath 1620.

8. Desmanthus Willd. Prairie Mimosa

1. D. illincensis (Michx.) MacM. Prairie Mimosa. Shrub; flowers white; prairies, roadsides; June-August. 10 miles NW of Burlington; D. Bell 57 (KSTC).

9. Desmodium Desv. Tick Trefoil

1. D. canadense (L.) DC. Tick Trefoil. Perennial; flowers lavender-pink; prairies, wooded areas; July-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 524.
2. D. canescens (L.) DC. Beggar's Lice. Perennial; flowers lavender-pink; prairies, roadsides; July-September. 4 miles S and 1/4 E of Lebo; L. K. Magrath 1404.
3. D. glutinosum (Muhl.) Wood. Tick Trefoil. Perennial; flowers lavender; wooded areas; uncommon; June-August. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3880.
4. D. illinoense Gray Tick Trefoil. Perennial; flowers lavender; prairies, roadsides; June-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 822.
5. D. paniculatum (L.) DC. Tick Trefoil. Perennial; flowers lavender; wooded areas; July-September. 2 miles E and 2 S of LeRoy; L. K. Magrath 3293.
6. D. sessiliflorum (Torr.) T. & G. Tick Trefoil. Perennial; flowers pink-lavender; prairies, roadsides; July-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1483.

10. Gleditsia L. Honey Locust

1. G. triacanthos L. Honey Locust. Tree; flowers green; wooded areas, fence rows, pastures; May-June. S. Irwin (KSTC).

11. Glycyrrhiza L. Licorice

1. G. lepidota (Nutt.) Pursh Wild Licorice. Perennial; flowers white; prairies, pastures, roadsides; May-August. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 406.

12. Gymnocladus Lam. Kentucky Coffee Tree

1. G. dioica (L.) K. Koch Kentucky Coffee Tree. Tree; flowers green; wooded areas; May-June. 1 mile N of Beto Jct. on US 75; L. K. Magrath 2438.

13. Lathyrus L. Vetchling

1. L. latifolius L. Everlasting Pea. Perennial; flowers lavender-pink; roadsides; May-September. E. Yard in Burlington; V. Robrahn 29 (KSTC).

14. Lespedeza Michx. Bush Clover

1. L. capitata Michx. Bush Clover. Perennial; flowers creamy yellow; roadsides, prairies; July-October. 6 miles N of Hartford; L. K. Magrath 940.

2. L. cuneata (Dumont) G. Don Sericea Lespedeza. Short-lived perennial; flowers cream; prairies, waste areas, roadsides; uncommon; August-October. E. 3 miles N and 1 W of Aliceville; L. K. Magrath 1423.
3. L. stipulacea Maxim Korean Lespedeza. Annual; flowers pink and cream; prairies, waste areas, roadsides; July-October. E. 3 miles N of Hartford; L. K. Magrath 1368.
4. L. violacea (L.) Pers. Perennial; flowers violet to purple; prairies, wooded areas; July-September. 6 miles N and 2 W of Westphalia; L. K. Magrath 184.

15. Lotus L. Trefoil

1. L. corniculatus L. Bird's-foot Trefoil. Perennial; flowers bright yellow; prairies, pastures, roadsides; June-August. E. 6 1/2 miles N and 2 1/2 W of Westphalia; L. K. Magrath 429.

16. Medicago L. Medick

1. M. lupulina L. Black Medick. Annual or weak perennial; flowers yellow; roadsides, waste areas, pastures; March-September. 13 miles NW of Burlington; D. Bell 45 (KSTC).
2. M. sativa L. Alfalfa. Perennial; flowers lavender to purple; fields, pastures, roadsides; April-October. E. 10 miles NW of Burlington; D. Bell 43 (KSTC).

17. Mellilotus Mill. Sweet Clover

1. M. albus Desr. White Sweet Clover. Annual or biennial; flowers white; roadsides, pastures, waste areas; May-October. E. 6 miles N and 1 W of Westphalia; L. K. Magrath 79.
2. M. officinalis (L.) Lam. Yellow Sweet Clover. Annual or biennial; flowers yellow; roadsides, pastures, waste areas; May-October. E. 8 miles NW of Burlington; D. Bell 42 (KSTC).

18. Petalostemon Michx. Prairie Clover

1. P. candidum (Willd.) Michx. White Prairie Clover. Perennial; flowers white; prairies, pastures; May-July. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 471.
2. P. multiflorum Nutt. White Prairie Clover. Perennial; flowers white; prairies, roadsides; June-September. 1/2 miles E of Waverly on US 50; N. C. Henderson 66-677 (KANU).
3. P. purpureum (Vent.) Rydb. Purple Prairie Clover. Perennial; flowers red-violet to purple; prairies, pastures; May-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 473.

19. Psoralea L. Scurf-pea

1. P. esculenta Pursh Prairie Turnip. Perennial; flowers lavender; prairies, pastures; April-July. 5 miles S and 4 E of Waverly; L. K. Magrath 1955.
2. P. tenuiflora Pursh Scurfy Pea. Perennial; flowers lavender to pale purple; prairies, pastures, roadsides; May-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 384.

20. Pueraria DC. Kudzu Vine

1. P. lobata (Willd.) Ohwi Kudzu Vine. Perennial; flowers lavender; roadsides; August-September. E. Alley in Burlington; L. K. Magrath 1418-1.

21. Robinia L. Locust

1. R. hispida L. Bristly Locust. Low shrub; flowers rose; roadsides; May-June. E. Roadside ditch in Gridley city limits; L. K. Magrath 2302.
2. R. pseudo-acacia L. Black Locust. Tree; flowers white; sloughs, waste areas, fence rows; May-June. 6 miles N and 1 W of Westphalia; L. K. Magrath 3865.

22. Schrankia Willd. Sensitive Brier

1. S. uncinata Willd. Sensitive Brier. Perennial; flowers pink; prairies, roadsides; May-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 818.

23. Strophostyles Ell. Wild Bean

1. S. leioperma (T. & G.) Piper Wild Bean. Annual; flowers white to pink; fields, waste areas, roadsides, prairies; June-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 225.

24. Tephrosia Pers. Hoary Pea

1. T. virginiana (L.) Pers. Goat's Rue. Perennial; flowers yellow and pink; prairies, roadsides; May-August. 5 1/4 miles N of Aliceville; L. K. Magrath 2534.

25. Trifolium L. Clover

1. T. campestre Schreb. Large Hop Clover. Annual; flowers pale yellow; prairies, pastures; May-September. 1 mile N and 3/4 W of Waverly; L. K. Magrath 2465.
2. T. hybridum L. Alsike Clover. Perennial; flowers white; prairies, roadsides, pastures; May-October. E. 3 miles W of Burlington; L. K. Magrath 802.

3. T. pratense L. Red Clover. Perennial; flowers rose; prairies, waste areas, pastures, roadsides; May-September. E. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 25.
4. T. reflexum L. Buffalo Clover. Annual or biennial; flowers white; prairies, pastures; May-August. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 2041.
5. T. repens L. White Clover. Perennial; flowers white; prairies, lawns, pastures, roadsides; May-October. 13 miles NW of Burlington; D. Bell 44 (KSTC).

Fam. 46 LINACEAE (Flax family)

1. Linum L. Flax

1. L. sulcatum Riddell Yellow Flax. Annual; flowers yellow; prairies, pastures; May-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 829.

Fam. 47 OXALIDACEAE (Wood Sorrel Family)

1. Oxalis L. Wood Sorrel, Sheep Sorrel

1. O. Dillenii Jacq. Yellow Wood Sorrel. Annual; flowers yellow; prairies, pastures, roadsides, waste areas; May-November. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 453.
2. O. stricta L. Yellow Wood Sorrel. Perennial; flowers yellow; wooded or shaded areas; May-October. Kelly Park in Burlington; L. K. Magrath 886.
3. O. violacea L. Violet Wood Sorrel. Perennial; flowers lavender; roadsides, prairies, pastures, open woods; April-July. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 9.

Fam. 48 GERANIACEAE (Geranium Family)

1. Geranium L. Cranesbill

1. G. carolinianum L. Cranesbill. Annual or biennial; flowers lavender to white; waste areas, roadsides, fields; May-July. 5 miles E of Burlington; L. K. Magrath 30.

Fam. 49 ZYGOPHYLLACEAE (Caltrop Family)

1. Tribulus L. Puncture Vine

1. T. terrestris L. Puncture Vine. Annual; flowers yellow; waste and disturbed areas, roadsides; June-September. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3228.

Fam. 50 RUTACEAE (Rue Family)

1. Zanthoxylum L. Prickly Ash

1. Z. americanum Mill. Prickly Ash. Shrub; flowers greenish; wooded areas; April-May. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3870.

Fam. 51[^] POLYGALACEAE (Milkwort Family)1. Polygala L. Milkwort

1. P. incarnata L. Pink Milkwort. Annual; flowers rose-purple; prairies; May-November. 4 miles NW of Gridley; H. A. Stephens (KSTC).
2. P. sanguinea L. f. albiflora (Wheelock) Millsp. Annual; flowers greenish-white; prairies; May-October. 1 mile N and 2 E of Aliceville; L. K. Magrath 2554.
- 2a. P. sanguinea L. f. sanguinea Purple Milkwort. Annual; flowers rose-lavender; prairies; May-November. 1 mile N and 2 E of Aliceville; L. K. Magrath 2557.
3. P. verticillata L. Whorled Milkwort. Annual; flowers greenish-white; prairies, pastures; May-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1145.

Fam. 52 EUPHORBIACEAE (Spurge Family)

1. Acalypha L. Three-seeded Mercury

1. A. gracilens Gray Slender Three-seeded Mercury. Annual; flowers green; prairies, waste areas, roadsides; May-October. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 1266.
2. A. rhomboidea Raf. Three-seeded Mercury. Annual; flowers green; wooded areas, prairies; July-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1188.
3. A. virginica L. Virginia Three-seeded Mercury. Annual; flowers green; wooded and prairie areas; July-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1231.

2. Croton L. Croton

1. C. capitatus Michx. Hogwort. Annual; flowers greenish-tan; prairies, pastures, waste areas, roadsides; June-October. 1 mile E and 1 1/2 N of Waverly Jct.; Rogers (KSTC).
2. C. monanthogynus Michx. Prairie Tea. Annual; flowers greenish-tan; prairies, roadsides, pastures, waste areas; May-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 163.

3. Euphorbia L. Spurge

1. E. corollata L. var. corollata Flowering Spurge. Perennial; flowers white; prairies, waste and disturbed areas, roadsides; May-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 2271.
2. E. dentata Michx. Toothed Spurge. Annual; flowers green; roadsides, waste areas, wooded areas, pastures; July-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 489.
3. E. cyathophora Murr. (E. heterophylla L.) Painted Leaf. Annual; flowers green; wooded and shaded areas; July-October. 5 miles S and 4 E of Waverly; L. K. Magrath 3207.
4. E. maculata L. Nodding Spurge. Annual; flowers green; disturbed and waste areas, roadsides, pastures; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 499.
5. E. marginata Pursh Snow-on-the-Mountain. Annual; flowers green-white; waste and disturbed areas, overgrazed pastures, roadsides; June-October. 1 mile S of Burlington; L. K. Magrath 1283.
6. E. serpens HBK. Round-leaved Spreading Spurge. Annual; flowers green; roadsides, disturbed areas, fields; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 500.
7. E. spathulata Lam. Leafy Spurge. Annual, rarely biennial; flowers green; disturbed and wooded areas, roadsides; May-July. 2 miles E of Burlington; L. K. Magrath 853.
8. E. stictospora Engelm. Narrow-seeded Spurge. Annual; flowers green; disturbed and waste areas, roadsides; July-October. 2 miles E of Burlington; L. K. Magrath 857.
9. E. supina Raf. Milk Purslane. Annual; flowers green; disturbed areas, roadsides; May-October. 7 miles N and 1 3/4 W of Westphalia; L. K. Magrath 509.

4. Tragia L. Tragia

1. T. cordata Michx. Twining Tragia. Annual; flowers green; pastures, roadsides; July-September. 1 mile N and 3/4 W of Waverly; L. K. Magrath 2466.

Fam. 53 CALLITRACHACEAE (Water Starwort Family)

1. Callitriche L. Water Starwort

1. C. heterophylla Pursh Water Starwort. Perennial; flowers green; shallow pools of water; uncommon; April-December. 3 miles N of Hartford; L. K. Magrath 3676-1.

Fam. 54 ANACARDIACEAE (Cashew Family)

1. Rhus L. Sumac

1. R. aromatica Ait. Fragrant Sumac. Shrub; flowers pale yellow; rocky hillsides, fence rows; March-April. 2 miles W and 3/4 S of Gridley; L. K. Magrath 842.
2. R. glabra L. Smooth Sumac. Shrub. flowers green; prairies, edges of wooded areas, roadsides; May-July. 2 miles E of Burlington; L. K. Magrath 868.
3. R. radicans L. Poison Ivy. Woody vine to low shrub; flowers yellowish-green; wooded areas, roadsides, fence rows, waste areas; May-July. 7 miles N and 2 W of Westphalia; L. K. Magrath 368.

Fam. 55 CELASTRACEAE (Staff-tree Family)

1. Celastrus L. Bittersweet

1. C. scandens L. American Bittersweet. Woody vine; flowers greenish; wooded areas, fence rows; May-June. 3 miles S and 1 E of Burlington; L. K. Magrath 1541.

2. Euonymus L. Spindle Tree

1. E. americanus L. Strawberry Bush. Low shrub or woody vine; flowers greenish; wooded areas; uncommon; May-June. Near LeRoy (KSC).
2. E. atropurpureus Jacq. Wahoo. Shrub; flowers maroon-purple; wooded areas; late April-June. 2 miles E and 2 S of LeRoy; L. K. Magrath 3298.

Fam. 56 STAPHYLEACEAE (Bladder-nut Family)

1. Staphylea L. Bladder-nut

1. S. trifolia L. American Bladder-nut. Shrub; flowers white; wooded areas; April-May. 6 miles N and 1 1/2 W of Westphalia; L. K. Magrath 3675.

Fam. 57 ACERACEAE (Maple Family)

1. Acer L. Maple

1. A. Negundo L. Box Elder. Shrub to small tree; wooded areas, roadsides; April-May. 5 miles N of Burlington; R. Leonard 465 (KSTC).
2. A. saccharinum L. Silver Maple. Tree; flowers reddish; wooded areas, fence rows, roadsides; February-April. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1551.

Fam. 58 HIPPOCASTANACEAE (Horse Chestnut Family)

1. Aesculus L. Buckeye

1. A. glabra Willd. var. arguta Buckl. Ohio Buckeye. Shrub; flowers greenish-yellow; wooded areas; April-May. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3232.

Fam. 59 RHAMNACEAE (Buckthorn Family)

1. Ceanothus L. New Jersey Tea

1. C. americanus L. New Jersey Tea. Low shrub; flowers white; prairies; May-November. 7 miles N and 4 W of Westphalia; L. K. Magrath 425.
2. C. ovatus Desf. Redroot. Low shrub; flowers white; prairies; April-June. 5 1/4 miles N and 3 W of Westphalia; L. K. Magrath 1776.

2. Rhamnus L. Buckthorn

1. R. lanceolata Pursh Buckthorn. Shrub; flowers greenish-yellow; April-June. 1 mile W of Aliceville; R. Engel 22 (KSTC).

Fam. 60 VITACEAE (Grape Family)

1. Ampelopsis Michx. Raccoon Grape

1. A. cordata Michx. Raccoon Grape. Woody vine; flowers green; wooded areas; May-July. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3237.

2. Parthenocissus Planch. Virginia Creeper

1. P. quinquefolia (L.) Planch. Virginia Creeper. Woody vine; flowers green; wooded areas, fence rows, sides of buildings; May-August. 6 1/2 miles N and 1 1/2 W of Westphalia; L. K. Magrath 482.

3. Vitis L. Grape

1. V. cinerea Engelm. Grayback Grape. Woody vine; flowers green; wooded areas; May-July. 1 mile N and 1 1/2 W of Aliceville; L. K. Magrath 2581.
2. V. vulpina L. Winter Grape. Woody vine; flowers green; wooded areas, fence rows; May-June. 7 miles N and 4 W of Westphalia; L. K. Magrath 430.

Fam. 61 MALVACEAE (Mallow Family)

1. Abutilon Mill. Indian Mallow

1. A. Theophrasti Medic. Indian Mallow. Annual; flowers pale orange; fields, waste and disturbed areas, roadsides; June-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 458.

2. Callirhoe Nutt. Poppy Mallow

1. C. alcaeoides (Michx.) Gray Poppy Mallow. Perennial; flowers white to pale pink; prairies, pastures, roadsides; May-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 408.

3. Hibiscus L. Hibiscus

1. H. Trionum L. Susan Weed. Annual; flowers pale yellow to white; waste and disturbed areas, roadsides, fields; June-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 76.

4. Malva L. Mallow

1. M. neglecta Wallr. Common Mallow. Biennial; flowers white to pale pink; waste and disturbed areas, roadsides, barnyards; April-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 392.

5. Sida L. Sida

1. S. spinosa L. Prickly Sida. Annual; flowers orange; waste and disturbed areas, roadsides, fields; June-October. 1/2 mile W and 1/2 S of Burlington; V. Robrahn 30 (KSTC).

6. Sphaeralcea St. Hil. False Mallow

1. S. angusta (Gray) Fern. Yellow False Mallow. Annual; flowers yellow; prairies, roadsides; July-September. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 1259.

Fam. 62 HYPERICACEAE (St. John's-wort Family)

1. Hypericum L. St. John's-wort

1. H. perforatum L. Common St. John's-wort. Perennial; flowers yellow; prairies, pastures; May-September. 5 miles S and 4 E of Waverly; L. K. Magrath 1080.
2. H. punctatum L. Perennial; flowers yellow; prairies, open woods; June-September. 5 1/4 miles N of Aliceville; L. K. Magrath 770.
3. H. sphaerocarpum Michx. Perennial; flowers yellow; upland prairies; May-September. 2 miles E of Burlington; L. K. Magrath 876.

Fam. 63 CISTACEAE (Rockrose Family)

1. Lechea L. Pinweed

1. L. tenuifolia Michx. Pinweed. Perennial; flowers reddish; rocky areas; June-November. 1 mile N of Beto Jct. on US 75; L. K. Magrath 2437.

Fam. 64 VIOLACEAE (Violet Family)

1. Viola L. Violet

1. V. cucullata Ait. Marsh Blue Violet. Perennial; flowers bluish-violet; wet meadows, roadsides, prairies; April-June. Yard in Burlington; D. Bell 1 (KSTC).
2. V. Kitaibeliana R. & S. var. Rafinesquii (Greene) Fern. Field Pansy. Winter annual; flowers violet; prairies, yards, pastures, roadsides, fields; March-May. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 1658.
3. V. missouriensis Greene Missouri Violet. Perennial; flowers violet; prairies, pastures, roadsides; March-May. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1637.
4. V. papilionacea Pursh Common Violet. Perennial; flowers purple to lavender; prairies, pastures, roadsides; March-June. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1595.
5. V. pedatifida G. Don Prairie Violet. Perennial; flowers purple; prairies; April-May. 5 miles S of Burlington; D. Bell 13 (KSTC).
6. V. pennsylvanica Michx. Smooth Yellow Violet. Perennial; flowers yellow; wooded areas; March-May. 6 1/2 miles N and 2 W of Westphalia; L. K. Magrath 256.

Fam. 65 LOASACEAE (Loasa Family)

1. Mentzelia L. Stick Leaf

1. M. oligosperma Nutt. Stick Leaf. Perennial; flowers orange; waste and disturbed areas, roadsides; May-August. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 1255.

Fam. 66 CACTACEAE (Cactus Family)

1. Opuntia Mill. Prickly Pear

1. O. compressa (Salisb.) Macbr. Prickly Pear. Perennial; flowers yellow; rocky areas in prairies, pastures, roadsides; May-June. 1 mile S of Burlington; L. K. Magrath 2304.

Fam. 67 LYTHRACEAE (Loosestrife Family)

1. Ammannia L. Ammannia

1. A. coccinea Rothb. Tooth-cup. Annual; flowers purplish; wet roadsides, pastures; June-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1488.

2. Lythrum L. Loosestrife

1. L. alatum Pursh Winged Loosestrife. Perennial; flowers lavender to purple; wet marshy areas, roadsides, sloughs; June-September. 2 miles E of Burlington; L. K. Magrath 40.

Fam. 68 ONAGRACEAE (Evening Primrose Family)

1. Gaura L. Gaura

1. G. filiformis Small subsp. crassa Raven & Gregory Biennial Gaura. Biennial or winter annual; flowers white becoming pink; prairies, pastures, roadsides, edges of woods; June-October. 5 miles S of Burlington; R. L. McGregor 12735 (KANU).

2. Jussiaea L. Primrose Willow

1. J. repens L. Floating Primrose Willow. Perennial; flowers yellow; ponds, lakes, marshy areas, sloughs; June-October. 1 mile S of Burlington; L. K. Magrath 922.

3. Oenothera L. Evening Primrose

1. O. biennis L. Evening Primrose. Biennial; flowers yellow; prairies, pastures, roadsides; June-October. 1 mile S of Burlington; L. K. Magrath 1528.
2. O. laciniata Hill Annual; flowers pale yellow; roadsides, prairies, fields; May-October. 1 mile N and 1 1/4 E of Aliceville; L. K. Magrath 1826.
3. O. linifolia Nutt. Sundrops. Annual; flowers yellow; rocky acid soil; uncommon; May-July. 5 1/4 miles N of Aliceville; L. K. Magrath 2524.
4. O. missouriensis Sims Missouri Primrose. Perennial; flowers yellow; rocky areas in prairies, roadsides; May-August. 2 miles E of Burlington; L. K. Magrath 37.
5. O. serrulata Nutt. Perennial; flowers yellow; prairies, pastures, roadsides; May-September. 2 miles W and 1/2 S of Gridley; W. Porter 146 (KSTC).
6. O. speciosa Nutt. White Evening Primrose. Perennial; flowers white becoming pink; roadsides, prairies; May-July. 2 miles E of Burlington; L. K. Magrath 877.

Fam. 69 UMBELLIFERAE (Parsley Family)

1. Bupleurum L. Thoroughwax

1. B. rotundifolium L. Thoroughwax. Annual; flowers yellow; roadsides, waste and disturbed areas; rare; May-July. 2 1/2 miles W of Lebo on US 50; L. K. Magrath 4150.

2. Chaerophyllum L. Chervil

1. C. procumbens (L.) Crantz Wild Chervil. Annual; flowers white; wooded areas, roadsides; April-June. 3 1/2 miles N of Jct. of US 75 and K 57; J. S. Wilson 2150 (KSTC).
2. C. Tainturieri Hook. Tainturier's Chervil. Annual; flowers white; wooded areas, roadsides; March-May. 3 1/4 miles N of Gridley; L. K. Magrath 2116.

3. Cicuta L. Water Hemlock

1. C. maculata L. Spotted Cowbane. Biennial; flowers white; wet marshy areas, sloughs, edges of ponds; May-September. 3 miles S and 1/2 W of Waverly; L. K. Magrath 1068.

4. Conium L. Poison Hemlock

1. C. maculatum L. Poison Hemlock. Biennial; flowers white; pastures, roadsides, waste areas, fence rows; May-August. 1 1/2 miles N and 1 W of Waverly; L. K. Magrath 2371.

5. Cryptotaenia DC. Honewort

1. C. canadensis (L.) DC. Wild Chervil. Perennial; flowers white; wooded areas; May-August. 1 mile N of Beto Jct. on US 75; L. K. Magrath 2428.

6. Daucus L. Carrot

- 1a. D. Carota L. f. Carota Wild Carrot. Annual or biennial; flowers white; roadsides, waste areas, pastures; May-October. 3 miles N and 1 W of Aliceville; L. K. Magrath 783.
- 1b. D. Carota L. f. epurpuratus Farw. Wild Carrot. Annual or biennial; flowers white; roadsides, waste areas, pastures; May-October. 1/2 mile E of Agricola on US 50; N. C. Henderson 65-526 (KANU).

7. Eryngium L. Eryngo

1. E. leavenworthii T. & G. Leavenworth's Eryngo. Perennial; flowers lavender; rocky prairies, roadsides; July-September. 1 1/2 miles N and 1 W of Gridley; L. K. Magrath 1523.
2. E. yuccifolium Michx. Rattlesnake Master. Perennial; flowers white; prairies, pastures, roadsides; July-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 150.

8. Lomatium Raf. Hairy Parsley

1. L. foeniculaceum (Nutt.) C. & R. Hairy Parsley. Perennial; flowers yellow; prairies, rocky slopes, roadsides; April-June. 6 miles N of Hartford; L. K. Magrath 1694.

9. Petroselinum Hoffm. Parsley

1. P. crispum (Mill.) Mansfeld Parsley. Biennial; flowers yellow or greenish; roadsides; June-August. E. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 454.

10. Polytaenia DC. Prairie Parsley

1. P. Nuttallii DC. Prairie Parsley. Perennial; flowers yellow; prairies, pastures; April-June. 2 miles W of Waverly on US 50; F. Dryden 68 (KSTC).

11. Sanicula L. Black Snakeroot

1. S. canadensis L. Biennial; flowers greenish; wooded areas; May-July. 2 miles S and 1 W of New Strawn; L. K. Magrath 2020.
2. S. gregaria Bicknell. Biennial; flowers greenish; wooded areas; April-June. 2 miles S and 1 W of New Strawn; L. K. Magrath 1205.

12. Sium L. Water Parsnip

1. S. suave Walt. Water Parsnip. Perennial; flowers white; wet marshy areas, sloughs, edges of ponds; uncommon; July-September. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 1372.

13. Spermolepis Raf. Spermolepis

1. S. inermis (Nutt.) Math. & Const. Spermolepis. Annual; flowers white; prairies, roadsides; May-June. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 2051.

14. Torilis Adans. Hedge Parsley

1. T. japonica (Houtt.) DC. Hedge Parsley. Annual; flowers white; roadsides, waste areas; June-August. 1 mile N of Beto Jct. on US 75; W. Porter 161 (KSTC).

15. Zizia Koch Golden Alexanders

1. Z. aurea (L.) Koch Golden Alexanders. Perennial; flowers yellow; moist prairies, roadsides, open woods; April-June. 5 miles N and 2 W of Westphalia; L. K. Magrath 301.

Fam. 70 CORNACEAE (Dogwood Family)

1. Cornus L. Dogwood

1. C. amomum Mill. subsp. obliqua (Raf.) J. S. Wilson Swamp Dogwood. Shrub; wooded areas; May-July. 5 miles S and 4 E of Waverly; L. K. Magrath 3215.

2. C. Drummondii Meyer Rough-leaved Dogwood. Shrub; flowers white; roadsides, fence rows, pastures, prairies; May-June. 1 mile N of Beto Jct. on US 75; W. Porter 160 (KSTC).

Fam. 71 PYROLACEAE (Wintergreen Family)

1. Monotropa L. Indian Pipe

1. M. uniflora L. Ghost Flower, Indian Pipe. Perennial; flowers white; rich wooded areas; saprophyte; rare; August-October. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3521.

Fam. 72 PRIMULACEAE (Primrose Family)

1. Androsace L. Androsace

1. A. occidentalis Pursh. Androsace. Annual; flowers white; fields, waste and disturbed areas, prairies, rocky areas; March-May. 3 miles N of Hartford; L. K. Magrath 1563.

2. Lysimachia L. Loosestrife

1. L. ciliata L. Fringed Loosestrife. Perennial; flowers yellow; moist prairies, sloughs, roadsides, marshy areas; May-July. 7 miles N and 3 W of Westphalia; L. K. Magrath 495.

Fam. 73 EBENACEAE (Ebony Family)

1. Diospyros L. Persimmon

1. D. virginiana L. Persimmon. Tree; wooded areas, rocky hillsides; May-June. 1 mile E and 2 N of LeRoy; L. K. Magrath 3672.

Fam. 74 OLEACEAE (Olive Family)

1. Fraxinus L. Ash

1. F. americana L. White Ash. Tree; wooded areas; April-May. 7 miles N and 2 W of Westphalia; L. K. Magrath 3181.
2. F. pennsylvanica Marsh. var. subintegerrima (Vahl) Fern. Green Ash. Tree; wooded areas, flood plains, roadsides; April-May. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 2074.

Fam. 75 GENTIANACEAE (Gentian Family)

1. Gentiana L. Gentian

1. G. puberula Michx. Downy Gentian. Perennial; flowers dark blue; prairies; September-November. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 246.

Fam. 76 APOCYNACEAE (Dogbane Family)

1. Apocynum L. Dogbane

1. A. cannabinum L. Indian Hemp. Perennial; flowers greenish-white; waste areas, fields, pastures, roadsides; May-August. 6 3/4 miles N and 1 W of Westphalia; L. K. Magrath 505.

Fam. 77 ASCLEPIADACEAE (Milkweed Family)

1. Asclepias L. Milkweed

1. A. incarnata L. Swamp Milkweed. Perennial; flowers rose-purple; marshy areas, roadsides, sloughs; June-August. 2 miles W of Gridley on K 57; L. K. Magrath 1244.
2. A. stenophylla Gray Perennial; flowers greenish; prairies, roadsides; June-July. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 51.
3. A. Sullivantii Engelm. Milkweed. Perennial; flowers lavender to white; prairies, pastures, roadsides; June-July. 6 miles N of Hartford; L. K. Magrath 946.
4. A. syriaca L. Common Milkweed. Perennial; flowers lavender; prairies, roadsides; May-August. 3 miles W of Burlington; L. K. Magrath 2298.
5. A. tuberosa L. Butterfly Weed. Perennial; flowers golden-orange to red-orange; prairies, roadsides; May-September. 2 miles E of Burlington; L. K. Magrath 39.
6. A. verticillata L. Whorled Milkweed. Perennial; flowers greenish-white; prairies, roadsides; May-September. 7 miles N and 2 1/2 W of Westphalia; L. K. Magrath D128.
7. A. viridiflora Raf. Green Milkweed. Perennial; flowers green; prairies, roadsides; May-August. 1 mile W of Jct. of US 50 and US 75; L. K. Magrath 1116.
8. A. viridis Walt. Green-flowered Milkweed. Perennial; flowers greenish; waste areas, pastures, roadsides; May-June. 7 miles N and 1 3/4 W of Westphalia; L. K. Magrath 510.

2. Cynanchum L. Angle-pod

1. C. laeve (Michx.) Pers. Angle-pod. Perennial herbaceous vine; flowers greenish; fence rows, roadsides, wooded areas; July-September. 2 miles S and 1 W of New Strawn; L. K. Magrath 1195.

Fam. 78 CONVULVULACEAE (Morning Glory Family)

1. Convolvulus L. Bindweed

1. C. arvensis L. Field Bindweed. Perennial herbaceous vine; flowers white; waste and disturbed areas, roadsides, fields; May-September. 3 miles W of Burlington; L. K. Magrath 799.
2. C. sepium L. var. sepium Hedge Bindweed. Perennial herbaceous vine; flowers white; roadsides, fence rows, fields, waste areas; May-September. 3 miles W of Burlington; L. K. Magrath 796.
3. C. spithameus L. Low Bindweed. Perennial herbaceous vine; flowers white; roadsides, waste areas, fields; May-July. 6 1/2 miles E of Lebo; W. Romary 60 (KSTC).

2. Cuscuta L. Dodder

1. C. cuspidata Engelm. Annual herbaceous vine; flowers straw-coloured; parasite; fence rows, roadsides, pastures, fields; July-October. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3230.
2. C. glomerata Choisy Annual herbaceous vine; flowers straw-coloured; parasite; pastures, roadsides, fields, fence rows; July-September. 4 miles S and 1 1/4 E of Lebo; L. K. Magrath 1333.
3. C. Gronovii Willd. Love Vine. Annual herbaceous vine; flowers straw-coloured; parasite; fields, roadsides, pastures, fence rows; July-October. 5 miles S and 4 E of Waverly; L. K. Magrath 1094.
4. C. pentagona Engelm. Annual herbaceous vine; flowers straw-coloured; parasite; fence rows, fields, pastures, roadsides; June-October. 4 miles S and 1 1/4 E of Lebo; L. K. Magrath 1405.

3. Ipomoea L. Morning Glory

1. I. hederacea (L.) Jacq. Blue Morning Glory. Annual herbaceous vine; flowers blue; fields, roadsides, fence rows, pastures; July-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 137.
2. I. lacunosa L. f. lacunosa Small White Morning Glory. Annual herbaceous vine; flowers white; fields, roadsides, waste areas; July-October. 7 miles N and 2 W of Westphalia; L. K. Magrath 3175.
3. I. pandurata (L.) G. F. Y. Mey. Wild Potato Vine. Perennial herbaceous vine; flowers white; fields, roadsides, waste areas; July-October. 1.2 mile W and 1/2 S of Burlington; V. Robrahn 40 (KSTC).

Fam. 79 POLEMONIACEAE (Phlox Family)

1. Phlox L. Phlox

1. P. divaricata L. var laphamii Wood Blue Phlox. Perennial; flowers blue to bluish-white; wooded areas; April-June. 4 miles S and 3/4 W of Lebo; L. K. Magrath 1648.

Fam. 80 HYDROPHYLLACEAE (Waterleaf Family)

1. Ellisia L. Nyctelea

1. E. Nyctelea L. Aunt Lucy. Annual; flowers light lavender; waste areas, wooded areas, roadsides; April-June. 1 mile N and 1 1/2 W of Aliceville; L. K. Magrath 1835.

2. Hydrophyllum L. Waterleaf

1. H. virginianum L. Waterleaf. Perennial; flowers lavender; wooded areas; uncommon; April-July. 7 miles N and 2.2 W of Westphalia; L. K. Magrath 3867.

Fam. 81 BORAGINACEAE (Borage Family)

1. Hackelia Opiz Stickseed

1. H. virginiana (L.) I. M. Johnston Beggar's Lice. Biennial; flowers white to pale blue; wooded areas; June-September. 2 miles S and 1 W of New Strawn; L. K. Magrath 1200.

2. Heliotropium L. Heliotrope

1. H. tenellum (Nutt.) Torr. Heliotrope. Annual; flowers white to pale blue; prairies, roadsides, waste areas; June-August. 4 miles S and 1 3/4 W of Lebo; L. K. Magrath 1248.

3. Lithospermum L. Gromwell

1. L. arvense L. Corn Gromwell. Annual; flowers white; roadsides, waste areas; April-June. 3 miles W of Burlington; L. K. Magrath 1662.
2. L. incisum Lehm. Yellow Puccoon. Perennial; flowers yellow; prairies, pastures, roadsides; April-June. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1588.

4. Myosotis L. Forget-me-not

1. M. virginica (L.) BSP. Scorpion Grass. Annual; flowers white to pale blue; roadsides, waste areas; April-May. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 2014.

Fam. 82 VERBENACEAE (Vervain Family)

1. Lippia L. Fog Fruit

1. L. lanceolata Michx. Perennial; flowers white to whitish-pink; marshy areas, sloughs, ponds, roadsides; May-September. 1 mile S of Burlington; L. K. Magrath 927.

2. Verbena L. Vervain

1. V. bracteata Lag. & Rodr. Annual or biennial; flowers lavender; waste areas, roadsides, pastures; April-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 388.
2. V. canadensis (L.) Britt. Rose Verbena. Perennial; flowers pink to rose; pastures, prairies, roadsides; March-November. 6 miles N and 1 W of Westphalia; L. K. Magrath 82.
3. V. hastata L. Blue Vervain. Perennial; flowers blue to blue-lavender; prairies, pastures, roadsides; June-October. 4 miles NW of Gridley; H. A. Stephens (KSTC).
4. V. X moechina Moldenke. Perennial; flowers blue; pastures; May-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1019.
5. V. simplex Lehm. Perennial; flowers pale to dark blue; prairies, pastures, roadsides; May-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 849.
6. V. stricta Vent. Perennial; flowers blue to lavender; prairies, waste areas, roadsides; May-September. 2 miles E of Burlington; L. K. Magrath 861.
7. V. urticifolia L. White Vervain. Perennial; flowers white; wooded areas, roadsides, waste areas, pastures; June-October. 7 miles N and 2 W of Westphalia; L. K. Magrath 529.

Fam. 83 LABIATAE (Mint Family)

1. Agastache Clayton Giant Hyssop

1. A. nepetoides (L.) Ktze. Yellow Giant Hyssop. Perennial; flowers yellow; wooded areas; July-September. 5 miles S and 4 E of Waverly; L. K. Magrath 1496.
2. A. scrophulariaefolia (Willd.) Ktze. Purple Giant Hyssop. Perennial; flowers lavender; wooded areas; July-September. 3 miles N and 2 E of Waverly; Baldwin 35 (KSTC).

2. Hedeoma Pers. Mock Pennyroyal

1. H. hispida Pursh Mock Pennyroyal. Annual; flowers blue; prairies, roadsides, waste areas; May-July. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 440.

3. Isanthus Michx. False Pennyroyal

1. I. brachiatus (L.) BSP. False Pennyroyal. Annual; flowers blue; waste areas, roadsides; July-October. 1/2 mile E of Waverly on US 50; N. C. Henderson 66-674 (KANU).

4. Lamium L. Dead Nettle

1. L. amplexicaule L. Henbit. Winter annual; flowers red-violet; waste and disturbed areas, roadsides, fields; February-November. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 254.

5. Leonurus L. Motherwort

1. L. Cardiaca L. Motherwort. Perennial; pinkish-white; pastures, wooded and waste areas; May-August. 1 mile E and 1 1/3 N of Waverly Jct.; Rogers (KSTC).

6. Lycopus L. Water Horehound

1. L. americanus Muhl. Water Horehound. Annual; flowers white; edges of ponds and streams, sloughs, marshy areas, roadsides; June-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1026.

7. Marrubium L. Horehound

1. M. vulgare L. Horehound. Perennial; flowers white; open wooded areas, pastures; May-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 4151.

8. Mentha L. Mint

1. M. arvensis L. Field Mint. Perennial; flowers white to pale lavender; wooded areas, prairies, sloughs; July-September. 5 miles S and 4 E of Waverly; L. K. Magrath 3216.

9. Monarda L. Wild Bergamot

1. M. citriodora Cerv. Lemon Mint. Annual; flowers lavender; roadsides, prairies; June-October. 7 miles N and 1 W of Westphalia; L. K. Magrath 232.
2. M. fistulosa L. Wild Bergamot. Perennial; flowers lavender; prairies, pastures, roadsides; May-August. 2 miles E of Burlington; L. K. Magrath 867.

10. Nepeta L. Catnip

1. N. cataria L. Catnip. Perennial; flowers white; waste areas, pastures, wooded areas; June-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 488.

11. Prunella L. Heal-all

1. P. vulgaris L. Heal-all. Perennial; flowers lavender; wooded areas, wet roadsides and prairies; May-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 534.

12. Pycnanthemum Michx. Mountain Mint

1. P. tenuifolium Schrad. Slender Mountain Mint. Perennial; flowers white to pale lavender; prairies, roadsides; June-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 475.

13. Salvia L. Sage

1. S. azurea Lam. var. grandiflora Benth. Blue Sage. Perennial; flowers blue, rarely white; prairies, pastures, roadsides; July-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 249.
2. S. reflexa Hornem. Sage. Annual; flowers pale blue to dark blue; roadsides, pastures, waste areas, prairies; May-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1186.

14. Scutellaria L. Skullcap

1. S. parvula Michx. Skullcap. Perennial; flowers blue; rocky areas, prairies, open woods; May-July. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath D427.

15. Stachys L. Hedge Nettle

1. S. tenuifolia Willd. Smooth Hedge Nettle. Perennial; flowers lavender; moist wooded areas; June-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 3190.

16. Teucrium L. Germander

1. T. canadense L. Wood Sage. Perennial; flowers lavender; prairies, roadsides, woods; June-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 484.
- 1a. T. canadense L. var. virginicum (L.) Eat. Wood Sage. Perennial; flowers lavender; prairies, roadsides, woods; June-September. 1 mile S of Burlington; L. K. Magrath 926.

Fam. 84 SOLANACEAE (Nightshade Family)

1. Datura L. Jimson Weed

1. D. Stramonium L. var. Stramonium f. Stramonium Jimson Weed. Annual; flowers white; barnyards, feedlots, fields, waste areas; May-October. 6 miles N and 1 1/2 W of Westphalia; L. K. Magrath 178.
- 1a. D. Stramonium L. var. Tatula (L.) Torr. Jimson Weed. Annual; flowers lavender; disturbed and waste areas, fields, barnyards; May-October. 6 miles N and 1 1/2 W of Westphalia; L. K. Magrath 177.

2. Lycium L. Matrimony Vine

1. L. halimifolium Mills Matrimony Vine. Woody vine; flowers lavender; roadsides; May-September. E. 6 miles N and 2 W of Westphalia; L. K. Magrath 3307.

3. Physalis L. Ground Cherry

1. P. angulata L. var. pendula (Rydb.) Waterfall Cut-leaved Ground Cherry. Annual; flowers pale yellow; waste and disturbed areas, roadsides, fields, pastures; May-September. 7 miles N and 1 3/4 W of Westphalia; L. K. Magrath D513.
2. P. lanceolata Michx. Prairie Ground Cherry. Perennial; flowers dull yellow with brown centers; roadsides, waste areas, prairies; July-September. 1/2 mile E of Burlington; V. Robrahn 64 (KSTC).
3. P. longifolia Nutt. Long-leaved Ground Cherry. Perennial; flowers pale yellow; disturbed and waste areas, prairies, roadsides; May-September. 1 mile S of Burlington; L. K. Magrath 906.
4. P. pumila Nutt. Low Ground Cherry. Perennial; flowers pale yellow with brown centers; roadsides, waste areas, pastures; May-August. 7 miles N and 2 W of Westphalia; L. K. Magrath 235.
5. P. virginiana Mill. Virginia Ground Cherry. Perennial; flowers pale yellow; prairies, pastures, roadsides; May-September. 7 miles N and 3 1/4 W of Westphalia; L. K. Magrath 2501.

4. Solanum L. Nightshade

1. S. americanum Mill. Black Nightshade. Annual; flowers white; pastures, wooded areas, roadsides; May-November. 7 miles N and 2 W of Westphalia; L. K. Magrath 1042.
2. S. carolinense L. f. albiflorum Benke Horse Nettle. Perennial; flowers white; disturbed and waste areas, roadsides, fields, pastures; May-October. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 2054.
- 2a. S. carolinense L. f. carolinense Horse Nettle. Perennial; flowers lavender; disturbed and waste areas, roadsides, fields, pastures; May-October. 1 mile S of Burlington; L. K. Magrath 901.
3. S. rostratum Dunal Buffalo Bur. Annual; flowers yellow; pastures, roadsides, waste and disturbed areas, fields; May-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 844.

Fam. 85 SCROPHULARIACEAE (Figwort Family)

1. Buchnera L. Blue Hearts

1. B. americana L. Blue Hearts. Biennial or perennial; flowers lavender; prairies; June-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1012.

2. Conobea Aubl. Conobea

1. C. multifida (Michx.) Benth. Conobea. Annual; flowers white to lavender; fields, pastures, prairies, roadsides, waste areas; June-October. 5 miles S and 4 E of Waverly; L. K. Magrath 1095.

3. Gerardia L. Gerardia

1. G. aspera Dougl. Rough Purple Gerardia. Annual; flowers lavender to purple; prairies, pastures, sloughs; August-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 539.
2. G. tenuiflora Vahl Slender Gerardia. Annual; flowers lavender; moist prairies, pastures, sloughs; August-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 540.

4. Lindernia All. False Pimpernel

1. L. anagallidea (Michx.) Pennell False Pimpernel. Annual; flowers lavender; waste and disturbed areas, sloughs, roadsides; June-October. 7 miles N and 1 3/4 W of Westphalia; L. K. Magrath 501.
2. L. dubia (L.) Pennell False Pimpernel. Annual; flowers lavender; waste and disturbed areas, marshy areas, roadsides; June-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 3016.

5. Mimulus L. Monkey Flower

1. M. alatus Ait. Monkey Flower. Perennial; flowers lavender; marshy areas, moist open woods, prairies; June-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 3189.

6. Penstemon Mitchell Beard-tongue

1. P. Cobaea Nutt. Cobaea Beard-tongue. Perennial; flowers white-lavender; prairies, roadsides; April-June. 2 1/2 miles N and 1 W of Ottumwa; L. K. Magrath 2030.
2. P. tubaeformis Nutt. Funnel-form Beard-tongue. Perennial; flowers white; prairies, roadsides; May-June. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 228.

7. Scrophularia L. Figwort

1. S. marilandica L. Figwort. Perennial; flowers greenish-brown; wooded areas; July-October. Kelly Park in Burlington; L. K. Magrath 1525.

8. Seymeria Pursh False Foxglove

1. S. macrophylla Nutt. Mullein Foxglove. Annual; flowers yellow; wooded areas; rare; June-September. 3 1/2 miles S and 2 E of Halls Summit; L. K. Magrath 1109.

9. Verbascum L. Mullein

1. V. Blattaria L. f. Blattaria Moth Mullein. Biennial; flowers yellow; roadsides, prairies; May-September. 1 mile N of Beto Jct. on US 75; W. Porter 158 (KSTC).
- 1a. V. Blattaria L. f. erubescens Bugger Moth Mullein. Biennial; flowers white; prairies, roadsides; May-September. 1 mile S of Burlington; L. K. Magrath 912.
2. V. Thapsus L. Mullein. Biennial; flowers yellow; roadsides, pastures, prairies; May-September. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 1373.

10. Veronica L. Speedwell

1. V. arvensis L. Corn Speedwell. Annual; flowers blue; waste and disturbed areas, yards, roadsides; March-May. 5 1/2 miles N and 2 W of Westphalia; L. K. Magrath 1797-1.
2. V. peregrina L. Neckweed. Annual; flowers white; fields, waste and disturbed areas, roadsides; April-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 291-2.
3. V. serpyllifolia L. Thyme-leaved Speedwell. Perennial; flowers blue or white; prairies, roadsides; April-July. 1 mile S of Burlington; L. K. Magrath 2337.

Fam. 86 BIGNONIACEAE (Trumpet Creeper Family)

1. Campsis Lour. Trumpet Creeper

1. C. radicans (L.) Seem. Trumpet Creeper. Perennial woody vine; flowers red-orange; roadsides, woods; May-August. E. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 86.

2. Catalpa Scop. Catalpa

1. C. bignonioides Walt. Catalpa. Tree; flowers white; wooded areas, fence rows, pastures; May-June. E. 1 mile N and 3/4 W of Waverly; L. K. Magrath 2467.
2. C. speciosa Warder Catalpa. Tree; flowers white; pastures, fence rows, wooded areas; May-June. E. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3225.

Fam. 87 ACANTHACEAE (Acanthus Family)

1. Justicia L. Water Willow

1. J. americana (L.) Vahl Water Willow. Perennial; flowers white to lavender; marshy areas, sloughs, edges of ponds, roadside ditches; May-October. 3 miles S and 1/2 W of Waverly; L. K. Magrath 1073.

2. Ruellia L. Ruellia, Wild Petunia

1. R. humilis Nutt. Wild Petunia. Perennial; flowers lavender, rarely pink; prairies, roadsides, yards, pastures; May-October. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 26.
2. R. strepens L. Wild Petunia. Perennial; flowers lavender; wooded areas; May-October. 2 miles S and 1 W of New Strawn; L. K. Magrath 1206.

Fam. 88 PHRYMACEAE (Lopseed Family)

1. Phryma L. Lopseed

1. P. leptostachya L. Lopseed. Perennial; flowers lavender; wooded areas; June-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 528.

Fam. 89 PLANTAGINACEAE (Plantain Family)

1. Plantago L. Plantain

1. P. aristata Michx. Bracted Plantain. Annual; pastures, prairies, roadsides, waste and disturbed areas; May-November. 2 miles E of Burlington; L. K. Magrath 854.
2. P. lanceolata L. English Plantain. Biennial or perennial; prairies, pastures, roadsides, waste areas; April-October. Kelly Park in Burlington; L. K. Magrath 894.
3. P. major L. Common Plantain. Perennial; barnyards, pastures, waste and disturbed areas, roadsides; May-October. Kelly Park in Burlington; L. K. Magrath 898.
4. P. purshii R. & S. Salt-and-Pepper Plant. Annual or short-lived perennial; prairies, pastures, roadsides, waste areas; May-August. 1 mile N of Beto Jct. on US 75; W. Porter 143 (KSTC).
5. P. rhodosperma Dcne. Red-seeded Plantain. Annual or biennial; waste and disturbed areas, roadsides; uncommon; May-June. 1 mile E of Beto Jct. on US 50; L. K. Magrath 1935.
6. P. rugelii Dcne. Rugel Plantain. Perennial; barnyards, pastures, roadsides, waste and disturbed areas; May-October. 3 miles S and 1/2 W of Waverly; L. K. Magrath 1060.

Fam. 90 RUBIACEAE (Madder Family)

1. Cephalanthus L. Buttonbush

1. C. occidentalis L. Buttonbush. Shrub; flowers white; sloughs, marshy areas, edges of ponds and streams, roadsides; June-August. 1/2 mile S of Burlington; H. A. Stephens (KSTC).

2. Diodia L. Buttonweed

1. D. teres Walt. Rough Buttonweed. Annual; flowers lavender; waste and disturbed areas, roadsides; June-October. 4 miles NW of Gridley; H. A. Stephens (KSTC).

3. Galium L. Bedstraw

1. G. Aparine L. Cleavers. Annual; flowers white; wooded areas, fence rows, waste and disturbed areas, roadsides; May-July. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath D403.
2. G. circaezans Michx. Wild Licorice. Perennial; flowers white; wooded areas; May-July. 7 miles N and 2 W of Westphalia; L. K. Magrath 428.

4. Houstonia L. Bluets

1. H. minima Beck Bluets. Annual; flowers blue; prairies, pastures; March-April. 3 miles N of Hartford; L. K. Magrath 1564.
2. H. nigricans (Lam.) Fern. Narrow-leaved Houstonia. Perennial; flowers white to pale lavender; prairies, pastures, roadsides; May-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1144.

Fam. 91 CAPRIFOLIACEAE (Honeysuckle Family)

1. Sambucus L. Elderberry

1. S. canadensis L. Common Elderberry. Shrub; flowers white; fence rows, wooded areas, roadsides, sloughs; May-July. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 64.

2. Symphoricarpos Duham. Snowberry

1. S. orbiculatus Moench. Coral Berry. Shrub; flowers green; wooded areas, roadsides, pastures, fence rows, waste areas; July-August. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1544.

3. Triosteum L. Horse Gentain

1. T. aurantiacum Bickn. Scarlet-fruited Horse Gentain. Perennial; flowers reddish; wooded areas; May-July. 3 1/2 miles S and 2 E of Halls Summit; L. K. Magrath 1111.

Fam. 92 VALERIANACEAE (Valerian Family)

1. Valerianella Mill. Corn Salad

1. V. radiata (L.) Dufur. Beaked Corn Salad. Annual; flowers white; prairies, pastures, roadsides; April-May. 8 miles SW of Burlington; D. Bell 15 (KSTC).

Fam. 93 DIPSACACEAE (Teasel Family)

1. Dipsacus L. Teasel

1. D. sylvestris Huds. Teasel. Biennial; flowers lavender; low moist waste areas, roadsides; uncommon; June-October. 1 mile S of Burlington; L. K. Magrath 911.

Fam. 94 CUCURBITACEAE (Gourd Family)

1. Cucurbita L. Gourd

1. C. foetidissima HBK. Missouri Gourd. Perennial; flowers yellow; roadsides, railroad right-of-ways; June-July. 1 mile S of Burlington; L. K. Magrath 1294.

2. Echinocystis T. & G. Wild Balsam Apple

1. E. lobata (Michx.) T. & G. Wild Balsam Apple. Annual; flowers greenish-white; wooded areas, roadsides; uncommon; June-October. 3 1/4 miles N of Gridley; L. K. Magrath 1504.

3. Sicyos L. Bur Cucumber

1. S. angulatus L. Bur Cucumber. Annual; flowers greenish; wooded areas; July-October. 3 1/4 miles N of Gridley; L. K. Magrath 1514.

Fam. 95 CAMPANULACEAE (Bellflower Family)

1. Campanula L. Bellflower

1. C. americana L. Tall Bellflower. Annual or biennial; flowers blue; wooded areas, roadsides; June-October. 7 miles N and 2 W of Westphalia; L. K. Magrath 527.
2. C. rapunculoides L. Creeping Bellflower. Perennial; flowers blue; shaded or wooded areas, waste areas; uncommon; May-September. E. 5 1/4 miles N and 6 W of Westphalia; L. K. Magrath 493.

2. Lobelia L. Lobelia

1. L. cardinalis L. Cardinal Flower. Perennial; flowers bright red; edges of streams and sloughs in wooded areas; July-October. 3 miles N and 1 W of Aliceville; L. K. Magrath 1419.

2. L. siphilitica L. Blue Cardinal Flower. Perennial; flowers blue; marshy areas, sloughs, roadside ditches; August-October. E of Waverly; J. S. Wilson and H. A. Stephens (KSTC).
3. L. spicata Lam. Pale Spiked Lobelia. Perennial or biennial; flowers pale blue; prairies, pastures, roadsides; May-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 383.

3. Triodanis Raf. (Specularia Fabr.) Venus' Looking Glass

1. T. biflora (R. & P.) Greene Small Venus' Looking Glass. Annual; flowers purple; roadsides, prairies, pastures; uncommon; April-June. 5 1/4 miles N of Aliceville; L. K. Magrath 2528-1.
2. T. leptocarpa (Nutt.) Nieuwl. Western Venus' Looking Glass. Annual; flowers purple; pastures, prairies, roadsides; May-August. 7 miles N and 2 W of Westphalia; L. K. Magrath 234.
3. T. perfoliata (L.) Nieuwl. Venus' Looking Glass. Annual; flowers purple; prairies, pastures, roadsides, open woods; April-August. 7 miles N and 2 W of Westphalia; L. K. Magrath 364.

Fam. 96 COMPOSITAE (Composite Family)

1. Achillea L. Yarrow

1. A. Millefolium L. Common Milfoil. Perennial; flowers white (occasionally pink in f. roseum); prairies, roadsides, pastures; May-November. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 21.

2. Ambrosia L. Ragweed

1. A. artemisiifolia L. Common Ragweed. Annual; flowers green; roadsides, pastures, waste and disturbed areas; July-November. 1 mile S of Burlington; L. K. Magrath 1313.
2. A. psilostachya DC. Western Ragweed. Perennial; flowers green; roadsides, pastures, waste and disturbed areas; June-September. 1 mile S of Burlington; L. K. Magrath 1347.
3. A. trifida L. Giant Ragweed. Annual; flowers green; roadsides, fields, waste and disturbed areas; June-September. 1 mile S of Burlington; L. K. Magrath 1290.

3. Antennaria Gaertn. Pussy's Toes

1. A. neglecta Greene Pussy's Toes. Perennial; flowers white; prairies, pastures; April-June. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 287.
2. A. plantaginifolia (L.) Hook. Pussy's Toes. Perennial; flowers white; sandstone outcrops in open wooded areas; uncommon; April-June. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3822.

4. Arctium L. Burdock

1. A. minus (Hill) Bernh. Common Burdock. Perennial; flowers white; roadsides, waste areas, pastures; July-October. Kelly Park in Burlington; L. K. Magrath 897.

5. Artemisia L. Sage

1. A. ludoviciana Nutt. White Sage. Perennial; flowers yellow; roadsides, prairies, pastures; June-September. 1 mile S of Burlington; L. K. Magrath 1338.

6. Aster L. Aster

1. A. Drummondii Lindl. Drummond Aster. Perennial; flowers lavender to blue (rays), yellow (disks); wooded areas, roadsides; August-October. 3 1/4 miles N of Gridley; L. K. Magrath 1518.
2. A. ericoides L. Wreath Aster. Perennial; flowers white to pale lavender (rays), yellow (disks); roadsides, prairies, pastures; July-October. 1 mile S of Burlington; L. K. Magrath 1539.
3. A. parviceps (Burgess) Mack. & Bush Small-headed Aster. Perennial; flowers white to lavender (rays), yellow (disks); prairies, pastures, roadsides; August-September. 6 miles N and 2 W of Westphalia; L. K. Magrath 183.
4. A. pilosus Willd. White Heath Aster. Perennial; flowers white (rays), yellow (disks); prairies, pastures, roadsides; August-November. 1 mile S of Burlington; L. K. Magrath 1295.
5. A. sericeus Vent. Silky Aster. Perennial; flowers lavender to purple (rays), yellow (disks); limestone soils, prairies; August-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1143.

7. Bidens L. Beggar Ticks

1. B. bipinnata L. Spanish Needles. Annual; flowers yellow; roadsides, marshy areas, sloughs, waste areas; August-October. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 1375.
2. B. connata Muhl. var. petiolata (Nutt.) Farw. Beggar Ticks. Annual; flowers yellow; edges of streams and ponds, sloughs, marshy areas, roadsides; June-October. s. l.; G. L. Clothier and H. N. Whitford (KSC).
3. B. frondosa L. var. frondosa Beggar Ticks. Annual; flowers yellow; waste areas, sloughs, edges of ponds and streams, roadside ditches; August-October. 3 miles N and 1 W of Aliceville; L. K. Magrath 1432.

4. B. polylepis Blake var. polylepis Tickseed Sunflower. Annual; flowers yellow; waste areas, sloughs, edges of ponds and streams, roadsides; August-October. John Redmond Dam and Reservoir; R. R. Weedon 5216 (KANU).
- 4a. B. polylepis Blake var. retrorsa Sherff Tickseed Sunflower. Annual; flowers yellow; sloughs, edges of ponds and streams, roadsides, waste areas, marshy areas; August-October. John Redmond Dam and Reservoir; R. R. Weedon 5220 (KANU).
5. B. vulgata Greene var. puberula (Wieg.) Greene Sticktight. Annual or short-lived perennial; flowers yellow; marshy areas, sloughs, roadsides; August-October. 5 miles S and 3 1/2 E of Waverly; L. K. Magrath 3196.

8. Boltonia L'Her Boltonia

1. B. asteroides (L.) L'Her Boltonia. Perennial; flowers white to pale pink (rays), yellow (disks); marshy areas, sloughs, roadsides; July-October. 3 miles N of Hartford; L. K. Magrath 1364.

9. Cacalia L. Indian Plantain

1. C. atriplicifolia L. Pale Indian Plantain. Perennial; flowers white; open wooded areas; June-October. 5 miles S and 4 E of Waverly; L. K. Magrath 3210.
2. C. tuberosa Nutt. Indian Plantain. Perennial; flowers white; prairies, pastures, roadsides; May-August. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 464.

10. Carduus L. Plumless Thistle

1. C. nutans L. Musk Thistle. Biennial; flowers lavender; waste and disturbed areas, pastures, roadsides; June-October. 4 1/2 miles W of Burlington; L. K. Magrath 2299.

11. Chrysanthemum L. Chrysanthemum

1. C. Leucanthemum L. Ox-eye Daisy. Perennial; flowers white (rays), yellow (disks); prairies, pastures, roadsides; May-August. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 449.

12. Cichorium L. Chickory

1. C. Intybus L. Common Chickory. Perennial; flowers blue; roadsides, waste areas; May-October. E. 7 miles N and 1 3/4 W of Westphalia; L. K. Magrath 444.

13. Cirsium Mill. Thistle

1. C. altissimum (L.) Spreng. Tall Thistle. Biennial or perennial; flowers lavender; pastures, roadsides, waste areas; July-October. 6 miles N and 2 W of Westphalia; L. K. Magrath 189.
2. C. undulatum (Nutt.) Spreng. Common Thistle. Biennial or perennial; flowers lavender, rarely white; roadsides, pastures, waste areas; June-October. 5 miles N and 2 1/2 W of Westphalia; L. K. Magrath 129.
3. C. vulgare (Savi) Tenore Bull Thistle. Biennial or perennial; flowers lavender; roadsides, pastures, waste areas; June-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1147.

14. Coreopsis L. Tickseed

1. C. grandiflora Hogg Large-flowered Tickseed. Perennial; flowers yellow; prairies, roadsides; May-July. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 385.
2. C. palmata Nutt. Stiff Tickseed. Perennial; flowers yellow; roadsides, prairies; May-July. 1 mile N and 1 1/4 E of Aliceville; L. K. Magrath 2578.
3. C. tinctoria Nutt. Tickseed. Annual; flowers yellow (rays), reddish (disks); upland prairies, roadsides; uncommon; July-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1148.

15. Dyssodia Cav. Fetid Marigold

1. D. papposa (Vent.) Hitchc. Fetid Marigold. Annual or biennial; flowers yellow; roadsides, waste areas, pastures; July-October. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3231.

16. Echinacea Moench Purple Coneflower

1. E. angustifolia DC. Purple Coneflower. Perennial; flowers rosy-purple to pink; prairies, roadsides; May-August. 4 miles N of Woodson Co. line on US 75; W. Barker 407 (KSTC).
2. E. atrorubens Nutt. Purple Coneflower. Perennial; flowers pink to rosy-purple; prairies, roadsides; May-August. 8 miles N of Burlington on US 75; D. E. Dallas 727 (KANU).
3. E. pallida Nutt. Purple Coneflower. Perennial; flowers pink to rosy-purple; prairies, roadsides; May-July. 2 miles W and 3/4 S of Gridley; L. K. Magrath 850.

17. Erigeron L. Fleabane

1. E. annuus (L.) Pers. Daisy Fleabane. Annual or biennial; flowers white (rays), yellow (disks); pastures, prairies, roadsides, waste areas; June-October. 3 1/4 miles N of Gridley; L. K. Magrath 2120.

2. E. canadensis L. Horse Weed. Annual; flowers white (rays), yellow (disks); waste and disturbed areas, fields, roadsides; June-November. 2 miles S and 1 W of New Strawn; L. K. Magrath 1202.
3. E. divaricatus Michx. Dwarf Fleabane. Annual; flowers white (rays), yellow (disks); waste areas, pastures, roadsides; May-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1794.
4. E. philadelphicus L. Philadelphia Fleabane. Perennial; flowers white to pinkish-lavender (rays), yellow (disks); wooded areas, prairies near woods; April-June. 1 mile N and 1 E of Waverly on US 50; L. K. Magrath 3845.
5. E. strigosus Muhl. Daisy Fleabane. Annual or short-lived perennial; flowers white (rays), yellow (disks); prairies, pastures, roadsides; May-September. 1 mile N and 2 E of Aliceville; L. K. Magrath 2564.

18. Eupatorium L. Thoroughwort

1. E. altissimum L. Tall Thoroughwort. Perennial; flowers white; waste areas, prairies, roadsides; August-October. 5 miles S and 4 E of Waverly; L. K. Magrath 1493.
2. E. rugosum Houtt. White Snakeroot. Perennial; flowers white; wooded areas; July-October. 7 miles N and 2 W of Westphalia; L. K. Magrath 523.

19. Gnaphalium L. Everlasting

1. G. obtusifolium L. Sweet Everlasting. Annual; flowers yellowish-white; prairies, pastures, roadsides; July-November. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 247.

20. Gutierrezia Lag. Broomweed

1. G. dracunculoides (DC.) Blake Broomweed. Annual; flowers yellow; waste and disturbed areas, overgrazed pastures; July-October. 1 mile S of Burlington; L. K. Magrath 1289.

21. Helenium L. Sneezeweed

1. H. autumnale L. Sneezeweed. Perennial; flowers yellow; roadsides, wet low prairies, marshy areas; August-November. 5 miles S and 4 E of Waverly; L. K. Magrath 1495.

22. Helianthus L. Sunflower

1. H. annuus L. Common Sunflower. Annual; flowers yellow (rays), reddish (disks); waste and disturbed areas, fields, roadsides; July-November. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 134.

2. H. grosseserratus Martens Saw-tooth Sunflower. Perennial; flowers yellow; prairies, roadsides, sloughs; July-October. 1/2 mile E of LeRoy; R. R. Weedon 5215 (KANU).
3. H. laetiflorus Pers. Prairie Sunflower. Perennial; flowers yellow (rays), reddish-purple (disks); prairies, roadsides; August-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1141.
4. H. Maximiliani Schrad. Maximilian Sunflower. Perennial; flowers yellow; prairies, pastures, roadsides; July-October. 1 mile S of Burlington; L. K. Magrath 1335.
5. H. petiolaris Nutt. Prairie Sunflower. Annual; flowers yellow (rays), brown (disks); waste and disturbed areas, fields, roadsides, pastures; May-October. 4 miles S and 4 3/4 miles W of Lebo; L. K. Magrath 1272.
6. H. salicifolius A. Dietr. Linear-leaved Sunflower. Perennial; flowers yellow (rays), brown (disks); moist areas in prairies, pastures, roadsides; August-October. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 1379.
7. H. tuberosus L. Jerusalem Artichoke. Perennial; flowers yellow; roadsides, wooded areas, waste areas; August-October. 5 miles S and 4 E of Waverly; L. K. Magrath 1497.

23. Heliopsis Pers. Ox-eye

1. H. helianthoides (L.) Sweet Ox-eye. Perennial; flowers yellow; prairies, roadsides, open woods; May-September. 2 1/4 miles N and 1 W of Ottumwa; L. K. Magrath 1377.

24. Hieracium L. Hawkweed

1. H. longipilum Torr. Long-bearded Hawkweed. Perennial; flowers yellow; prairies, open woods, roadsides; July-September. 6 3/4 miles N and 1 1/4 W of Westphalia; L. K. Magrath 147.

25. Iva L. Marsh Elder

1. I. annua L. Marsh Elder. Annual; flowers greenish; overgrazed pastures, fields, disturbed and waste areas; July-October. 1/2 mile E of Waverly along US 50; N. C. Henderson 66-783 (KANU).

26. Kuhnia L. False Boneset

1. K. eupatorioides L. False Boneset. Perennial; flowers white; roadsides, prairies, pastures; July-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 245.

27. Lactuca L. Lettuce

1. L. canadensis L. Wild Lettuce. Biennial or annual; flowers yellow; wooded areas, prairies; July-September. 1/4 mile N of Beto Jct. on US 75; G. Tucker 1074 (KSTC).
2. L. floridana (L.) Gaertn. Florida Lettuce. Annual or biennial; flowers blue; wooded areas, roadsides, waste areas; August-October. 3 1/4 miles N of Gridley; L. K. Magrath 1509.
3. L. ludoviciana (Nutt.) Riddell Western Lettuce. Biennial or annual; flowers yellow; roadsides, waste and disturbed areas; June-August. 1 mile NE of Agricola on US 50; G. Tucker 785 (KSTC).
4. L. saligna L. Willow-leaved Lettuce. Biennial; flowers yellow; prairies, open woods, roadsides; July-October. 3 miles W of Burlington; L. K. Magrath 1472.
5. L. Scariola L. Prickly Lettuce. Annual or biennial; flowers yellow; roadsides, waste areas, pastures; June-October. 1/4 mile N of Beto Jct. on US 50; G. Tucker 1073 (KSTC).

28. Liatris Schreb. Gay Feather

1. L. aspera Michx. Large Button-Snakeroot. Perennial; flowers purplish; prairies, roadsides; August-November. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 241.
2. L. mucronata DC. Slender Button-Snakeroot. Perennial; flowers purple; prairies, roadsides; July-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 240.
3. L. punctata Hook Gaiser Snakeroot. Perennial; flowers lavender; prairies, pastures; August-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 238.
4. L. pycnostachya Michx. Button Snakeroot. Perennial; flowers purple to lavender; prairies, pastures; July-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1119.

29. Prenanthes L. White Lettuce

1. P. aspera Michx. Rough White Lettuce. Perennial; flowers yellow; prairies, pastures; August-September. 6 miles N and 2 W of Westphalia; L. K. Magrath 186.

30. Pyrrhopappus DC. False Dandelion

1. P. carolinianus (Walt.) DC. False Dandelion. Annual or biennial; flowers yellow; roadsides, pastures, waste areas; May-October. 1 mile S and 1 3/4 W of Burlington; L. K. Magrath 2154.

31. Ratibida Raf. Prairie Coneflower

1. R. columnifera (Nutt.) Woot. & Standl. Long-head Coneflower. Perennial; flowers yellow (rays), brownish-gray (disks); prairies, pastures, roadsides; June-September. 2 miles W and 3/4 S of Gridley; L. K. Magrath 816.
2. R. pinnata (Vent.) Barhn. Gray-head Coneflower. Perennial; flowers yellow (rays), gray (disks); prairies, roadsides, pastures; May-September. 2 miles E of Burlington; L. K. Magrath 874.

32. Rudbeckia L. Coneflower

1. R. hirta L. Black-eye Susan. Perennial; flowers yellow (rays), brown (disks); prairies, pastures, roadsides; May-October. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 447.
- 1a. R. hirta L. var. pulcherrima Farwell Black-eye Susan. Perennial; flowers yellow (rays), brown (disks); prairies, pastures, roadsides; May-October. 1 mile NE of Agricola on US 50; L. K. Magrath 2399.
2. R. laciniata L. Wild Goldenglow. Perennial; flowers yellow (rays), greenish-yellow (disks); wooded areas, moist roadsides; July-September. 7 miles N and 2 W of Westphalia; L. K. Magrath 3183.

33. Senecio L. Ragwort

1. S. plattensis Nutt. Prairie Ragwort. Perennial; flowers yellow; prairies, pastures, roadsides; May-June. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 8.

34. Serinia Raf. Serinia

1. S. oppositifolia (Raf.) Ktze. Serinia. Annual; flowers yellow; roadsides, prairies, pastures, waste areas; April-June. 5 1/2 miles N and 2 W of Westphalia; L. K. Magrath 1796.

35. Silphium L. Rosin-weed

1. S. integrifolium Michx. Rosin-weed. Perennial; flowers yellow; prairies, roadsides; July-September. 3 miles W of Burlington; L. K. Magrath 3094.
2. S. laciniatum L. Compass Plant. Perennial; flowers yellow; prairies, pastures, roadsides; July-September. 6 1/2 miles N and 1 1/4 W of Westphalia; L. K. Magrath 151.
3. S. perfoliatum L. Cup Plant. Perennial; flowers yellow; wooded areas; July-September. 1 mile N of Beto Jct. on US 75; L. K. Magrath 3236.

36. Solidago L. Goldenrod

1. S. altissima L. Tall Goldenrod. Perennial; flowers yellow; prairies, pastures, roadsides; August-November. 3 miles W of Burlington; L. K. Magrath 1476.
2. S. missouriensis Nutt. Missouri Goldenrod. Perennial; flowers yellow; prairies, pastures, roadsides; July-September. 6 3/4 miles N and 1 1/4 W of Westphalia; L. K. Magrath 148.
3. S. rigida L. Stiff Goldenrod. Perennial; flowers yellow; prairies, pastures, roadsides; August-October. 2 miles W and 3/4 S of Gridley; L. K. Magrath 1133.
4. S. ulmifolia Muhl. Elm-leaf Goldenrod. Perennial; flowers yellow; wooded areas; August-November. 3 1/2 miles S and 2 E of Halls Summit; L. K. Magrath 1112.

37. Sonchus L. Sow Thistle

1. S. asper (L.) Hill Spiny-leaved Sow Thistle. Annual; flowers yellow; waste areas, roadsides, pastures, barnyards; May-October. 3 miles W of Burlington; L. K. Magrath 798.

38. Taraxacum Zinn. Dandelion

1. T. officinale Wiggers Common Dandelion. Perennial or biennial; flowers yellow; roadsides, pastures, waste and disturbed areas; March-September. 6 1/2 miles N and 1 W of Westphalia; L. K. Magrath 1596.

39. Tragopogon L. Goat's Beard

1. T. dubius Scop. Goat's Beard. Perennial; flowers yellow; prairies, pastures, waste areas, roadsides; May-July. 2 miles W and 3/4 S of Gridley; L. K. Magrath 817.

40. Verbesina L. Crown-beard

1. V. alternifolia (L.) Britt. Yellow Ironweed. Perennial; flowers yellow; wooded areas, meadows, shaded roadsides; August-October. 2 miles N of Hartford; L. K. Magrath 1416.

41. Vernonia Schreb. Ironweed

1. V. altissima Nutt. Tall Ironweed. Perennial; flowers red-violet; over-grazed pastures, roadsides, waste areas; August-October. 1/2 mile E of Waverly on US 50; N. C. Henderson 66-671 (KANU).

2. V. Baldwini Torr. Baldwin's Ironweed. Perennial; flowers red-violet; overgrazed pastures, roadsides, waste areas; May-September. 2 miles S and 1 W of New Strawn; L. K. Magrath 1190.

42. Xanthium L. Cocklebur

1. X. italicum Moretti Cocklebur. Annual; flowers green; fields, waste and disturbed areas; August-October. 1 mile S of Burlington; L. K. Magrath 1362.
2. X. pensylvanicum Wallr. Cocklebur. Annual; flowers green; fields, waste and disturbed areas; August-October. 6 miles N and 1 1/2 W of Westphalia; L. K. Magrath 181.

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Appendix A

Appendix A

Plants listed by Stephens (1969), but not collected or seen by the author.

Family	Scientific Name
ANACARDIACEAE	<u>Rhus copallina</u> L. var. <u>latifolia</u> Engler
FAGACEAE	<u>Quercus stellata</u> Wang.
JUGLANDACEAE	<u>Carya laciniosa</u> (Michx.) Loud.
ROSACEAE	<u>Rubus flagellaris</u> Willd.
ROSACEAE	<u>Rubus ostryifolius</u> Rydb.
SIMAROUBACEAE	<u>Ailanthus altissima</u> (Mill.) Swingle
VITACEAE	<u>Vitis riparia</u> Michx.

Appendix B

Appendix B

Addenda list of new species for Coffey County.

Family	Scientific Name	Collector
CONVOLVULACEAE	<u>Ipomoea purpurea</u> (L.) Roth	V. Robrahn 40 (KSTC)
LABIATAE	<u>Physostegia virginiana</u> (L.) Benth.	L. K. Magrath 4252
ORCHIDACEAE	<u>Habenaria leucophaea</u> (Nutt.) Gray	L. K. Magrath 4168
NAJADACEAE	<u>Potamogeton diversifolius</u> Raf.	R. R. Weedon and L. K. Magrath 4185
TYPHACEAE	<u>Typha angustifolia</u> L.	R. R. Weedon and L. K. Magrath 4180

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