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The Vascular Flora of Cherokee County

JACK L. CARTER¹

Abstract. This survey brings together the available information on the vascular flora of Cherokee County, Iowa, taking into consideration such things as: which species of vascular plants occur in the area, their relative frequencies, and the habitats in which these species exist. A general description of the area is included.

INTRODUCTION

This study of the vascular flora of Cherokee County is part of a comprehensive study of the plants of northwestern Iowa and will provide a portion of the information necessary for a flora of Iowa, to be published by Dr. R. F. Thorne at a later date.

The purpose of this study is to bring together all the available information on the vascular flora of Cherokee County, including such things as: which species of vascular plants occur in the area, their relative frequencies, and the habitats in which these species exist.

The major collecting was done throughout the growing seasons of 1956 and 1957, with additional trips being made in 1959 and 1960. The majority of the specimens were collected at eleven stations in the county, but there were occasional visits to other areas. In locating the various collecting stations the author utilized available soil, topographic and geologic maps.

LOCATION AND AREA

Cherokee County is located in the northwest corner of Iowa, in the third tier of counties from the Minnesota border and in the second tier of counties from the South Dakota border and the Big Sioux River. The county is bounded on the north by O'Brien County, on the south by Ida County, on the west by

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Plymouth County, and on the east by Buena Vista County.

The total area of Cherokee County is 573 square miles, or 366,720 acres, with sixteen townships. Approximately 98.2 per cent of the county is in farm land.

GEOLOGY, TOPOGRAPHY AND DRAINAGE

The soils of Cherokee County are not derived from the underlying native bedrock material, but have been formed from the glacial deposits and wind blown loess of more recent times (Stevenson and Brown, 1929).

At least three ice sheets have passed over the county. The first ice sheet to cover this area was the Nebraskan glacier, the second was the Kansan glacier which covered the entire county and completely obliterated many earlier topographic features, and the third was the Wisconsin ice sheet, which upon its retreat left behind thick deposits of glacial till.

Sometime later in the geological history, a layer of wind-blown loess was deposited from the west and covered the entire area (MacBride, 1901).

Due to the general erosion and weathering of the loess by the Little Sioux River and some of its tributaries, the county may be divided into three major habitats. The major portion of the county may be considered a dry loess soil type, supporting a western or prairie flora. The bottomland soils in the eroded areas cover only a very small percentage of the total area, but are the areas in which we find the rich woods and ravines of a more eastern flora. These follow the Little Sioux River and its tributaries. The third major habitat type has been formed in areas where the loess has been eroded away and left the exposed gravel. Stream terraces which follow the Little Sioux River and seem to be the result of melting ice have left the river valley marked with gravel terraces far above the flood plain of the present stream (Beyer and Wright, 1913). These gravel hills form one of the most interesting habitats and their flora is quite distinctive from those of adjacent areas.

CLIMATE

The climate of Cherokee County is essentially that of midcontinental United States, tending toward a western dryness. During the normal growing season the prevailing winds are usually from the south and southwest.

The growing season, or the number of days between the last spring minimum temperature of 32°F and the first autumn minimum temperature of 32°F usually ranges between 130 and

160 days in Cherokee County. The number of days between these dates were 137 in 1956 and 157 in 1957.

All of the weather data was based on the *Climatological Data*, United States Department of Commerce for 1956 and 1957.

THE ANNOTATED CATALOGUE

The major categories of phylum, class, and subclass have been arranged in the currently accepted sequence with taxa below the rank of subclass arranged alphabetically. The arrangement is not only for convenience, but it also follows the arrangement in both major state herbaria.

Nomenclature, in general, follows that employed in either *Gray's Manual of Botany, 8th Edition*, or the *New Britton and Brown Illustrated Flora*. Introduced and adventive species are indicated by an asterisk before the binomial.

A brief description of the habitat and the relative frequency of each species is given. The terms denoting relative frequency are based on the following scale:

Common	7 or more stations
Frequent	4 to 6 stations
Infrequent	2 or 3 stations
Rare	1 station

Taking into consideration the author's field of experience and the impracticability of collecting every common species at each station in such a large area, the frequency scale is based on both collections and observations.

FLORA OF CHEROKEE COUNTY

Equisetaceae (Horsetail Family)

Equisetum laevigatum A. Br. (*E. Kansanum* Schaffner) Prairie Scouring-rush. Roadside and railroad prairie, and gravel hills; common.

Ophioglossaceae (Adder's-tongue Family)

Botrychium virginianum (L.) Sw. Rattlesnake Fern. Rich woods; frequent.

Aspidiaceae

Cystopteris fragilis (L.) Bernh. Bladder Fern. Upland woods; frequent.

Cupressaceae (Cypress Family)

Juniperus virginiana L. Red Cedar. Wooded slopes and bluffs; infrequent.

Amaryllidaceae (Amaryllis Family)

Allium canadense L. Wild-onion. Railroad and roadside prairie; infrequent.

Allium stellatum Ker. Wild-onion. Gravel hilts and prairie; frequent.

Allium tricoccum Ait. Wild Leek. Rich woods; infrequent.

Araceae (Arum Family)

Arisaema triphyllum (L.) Schott Jack-in-the-pulpit. Rich woods; common.

Commelinaceae (Spiderwort Family)

Tradescantia bracteata Small Spiderwort. Railroad and roadside prairie; common.

Cyperaceae (Sedge Family)

Carex albursina Sheldon Rich woods; rare.

Carex annectens (Bickn.) Bickn. (incl. *C. xanthocarpa* Bickn.; *C. brachyglossa* Mackenz.) Margins of streams and ponds; rare.

Carex bebbii Olney Meadows and moist woods; infrequent.

Carex bicknellii Britt. Prairie; frequent.

Carex blanda Dew. Woods; common.

Carex brevior (Dew.) Mack. Roadside prairie and gravel hills; common.

- Carex davisii* Schwein. & Torr. Moist woods; rare.
Carex eleocharis Bailey Dry woods, prairie and gravel hills; common.
Carex gravida Bailey Dry woods and prairie; common.
Carex grisea Wahl. Moist woods; infrequent.
Carex hystericina Muhl. Marshy areas; infrequent.
Carex oligocarpa Schkuhr Moist, rich woods; rare.
Carex pennsylvanica Lam. Dry woods; infrequent.
Carex rosea Schkuhr Rich woods; frequent.
Carex sparganioides Muhl. Rich woods; infrequent.
Carex spregelii Dewey Rich woods; infrequent.
Cyperus odoratus L. (incl. *C. ferruginescens* Boeckl.) Moist sand and muddy soil; common.
Scirpus atrovirens Willd. Bulrush. Moist prairie and marshes, frequent.
Scirpus validus Vahl (incl. *S. acutus* Muhl.) Soft-stem Bulrush. Moist sand and muddy soil; frequent.

Gramineae (Grass Family)

- Agropyron repens* (L.) Beauv. Quack Grass. Waste ground and disturbed prairie; common.
Agropyron smithii Rydb. Wheat-grass. Roadside and railroad prairie; common.
Agropyron trachycaulum (Link.) Steud. Gravel hills and prairie; infrequent.
 **Agrostis alpa* L. Redtop. Margins of ponds, sloughs and rivers; frequent.
Andropogon gerardi Vitman (*A. furcatus* Muhl.) Tall Bluestem. Roadside and railroad prairie; common.
Andropogon scoparius Michx. Little Bluestem. Gravel hills and open prairie; common.
Aristida basiramea Engelm. Dry gravel hills; rare.
 **Avena sativa* L. Oats. Escaped from cultivation; common.
Bouteloua curtipendula (Michx.) Torr. Side-oats Grama. Gravel hills and prairie; common.
Bouteloua gracilis (HBK.) Lag. Blue Grama. Gravel hills and dry prairie; frequent.
Bouteloua hirsuta Lag. Hairy Grama. Gravel hills and prairie; frequent.
Brachyleytrum erectum (Schreb.) Beauv. Rich woods; infrequent.
 **Bromus inermis* Leys. Hungarian Brome. Roadside and railroad prairie and waste places; common.
 **Bromus japonicus* Thumb. Japanese Chess. Roadsides, railroads, and waste places; common.
 **Bromus tectorum* L. Downey Chess. Roadsides, railroads, and waste places; common.
Calamovilfa longifolia (Hook.) Scribn. Gravel hills; infrequent.
Cenchrus pauciflorus Benth. Field Sandbur. Gravel hills and sandy soil; frequent.
Cinna arundinacea L. Woodreed. Rich woods; rare.
 **Dactylis glomerata* L. Orchard Grass. Fields and waste places; infrequent.
Diarrhena americana Beauv. Rich woods; rare.
 **Digitaria ischaemum* (Schreb.) Muhl. (*D. humifusa* Pers.) Smooth Crab Grass. Roadsides, fields and waste ground; common.
 **Digitaria sanguinalis* (L.) Scop. Common Crab Grass. Roadsides, fields and lawns; common.
 **Echinochloa crus-gali* (L.) Beauv. Barnyard Grass. Gravel hills and sandy soils; frequent.
Echinochloa pungens (Poir.) Rydb. Weedy woods and prairie; frequent.
Elymus canadensis L. (*E. robustus* Scribn. & Smith) Wild Rye. Gravel hills and open prairie; common.
Elymus villosus Muhl. (*E. striatus* Willd.) Wild Rye. Gravel hills and open prairie; common.
Elymus virginicus L. Virginia Wild Rye. Moist ground and alluvial soil; common.
 **Eragrostis cilianensis* (All.) Link (incl. *E. megastachya* (Koel.) Link) Stink Grass. Prairie and gravel hills; common.
Eragrostis pectinacea (Michx.) Nees Roadside and railroad prairie and sandy margins of ponds; infrequent.
Eragrostis spectabilis (Pursh) Steud. (*E. pectinacea* var. *spectabilis* (Pursh) Gray) Tumble Grass. Dry prairie and gravel hills; infrequent.
Festuca obtusa Biehler Nodding Fescue. Gravel hills and wooded slopes; common.
Festuca octoflora Walt. Slender Fescue. Gravel hills; infrequent.
Glyceria grandis S. Wats. Reed Meadow Grass. Margins of stream and ponds; infrequent.
Glyceria striata (Lam.) Hitchc. (*G. nervata* Trin.) Fowl Nanna Grass. Wet woods and sand pits; infrequent.
Hordeum jubatum L. Squirreltail Grass. Roadside and railroad prairie weed; common.
Hystrix patula Moench. Bottle-brush Grass. Moist woodlands; infrequent.
Koeleria cristata (L.) Pers. June Grass. Dry prairie and gravel hills; common.
Leersia virginica Willd. White Grass. Alluvial woods; infrequent.
Muhlenbergia cuspidata (Torr.) Rydb. Dryprairie and gravel hills; frequent.
Muhlenbergia mexicana (L.) Trin. Rock Twp., Heddle, 1908; rare.
Muhlenbergia sylvatica Torr. Floodplain of Little Sioux River, Hayden, 1937; rare.
Oryzopsis racemosa (Sm.) Ricker Mountain Rice. Sandy and rocky woods; infrequent.
Panicum capillare L. Witch Grass. Open prairie, gravel hills and waste places; common.
Panicum leibergii (Vasey) Scribn. Gravel hills; frequent.
Panicum scribnerianum Nash (incl. *P. oligosanthes* var. *scribnerianum* (Nash) Fern.) Gravel hills and dry prairie; common.
Panicum virgatum L. Switchgrass. Prairie and gravel hills; common.
Panicum wilcoxianum Vasey Dry prairie; rare.
 **Phleum pratense* L. Timothy. Weed of railroad and roadside prairie; common.
Poa palustris L. Fowl Blue Grass. Moist prairie; infrequent.
 **Poa pratensis* L. Kentucky Blue Grass. Very common.

- **Setaria lutescens* (Weigel) Hubb. Yellow Foxtail. Prairies and waste ground; common.
Setaria viridis (L.) Beauv. Green Foxtail. Weed of disturbed soil; common.
Sorghastrum nutans (L.) Nash Indian Grass. Prairie and gravel hills; common.
 **Sorghum vulgare* Pers. Sorghum escaping cultivation; rare.
Spartina pectinata Link (*S. michauxiana* Hitchc.) Slough Grass. Low prairies and wet places; frequent.
Sporobolus cryptandrus (Torr.) Gray Sand Dropseed. Gravel hills and prairie; frequent.
Sporobolus heterolepis Gray Prairie Dropseed. Dry prairie and gravel hills; infrequent.
Stipa spartea Trin. Porcupine Grass. Dry prairie and gravel hills; common.

Hypoxidaceae (Star-grass Family)

- Hypoxis hirsuta* (L.) Coville. Star-grass. Prairie remnants; infrequent.

Iridaceae (Iris Family)

- Iris virginica* L. Blue Flag. Pond margin; rare.
Sisyrinchium campestre Bickn. Prairie remnants; common.

Juncaceae (Rush Family)

- Juncus torreyi* Coville Margins of lakes and ponds; infrequent.

Lemnaceae (Duckweed Family)

- Lemna minor* L. Duckweed. Sand pits and ponds; frequent.

Liliaceae (Lily Family)

- **Asparagus officinalis* L. Asparagus. Roadsides and disturbed ground; infrequent.
Erythronium albidum Nutt. Dog's Tooth Violet. Rich woods; frequent.
Lilium philadelphicum L. (*L. umbellatum* Pursh) Wood Lily. Moist prairie; rare.
Polygonatum canaliculatum (Muhl.) Pursh Solomon's Seal. Wooded areas; common.
Smilacina stellata (L.) Desf. Moist wooded area; common.
Uvularia grandiflora Sm. Bellwort. Rich woods; rare.

Najadaceae (Naiad Family)

- Najas guadalupensis* (Spreng.) Magnus Shallow water; rare.

Potamogetonaceae (Pondweed Family)

- Potamogeton foliosus* Raf. Small ponds; infrequent.
Potamogeton pectinatus L. Small ponds; infrequent.

Smilacaceae (Greenbrier Family)

- Smilax ecirrhata* (Engelm.) S. Wats. Rich woods; frequent.
Smilax herbacea L. Carrion Flower. Rich woods; frequent.
Smilax hispida Muhl. Greenbrier. Rich woods; infrequent.

Trilliaceae (Trillium Family)

- Trillium nivale* Riddell Snow Trillium. Rich woods; infrequent.

Typhaceae (Cattail Family)

- Typha latifolia* L. Cattail. Margins of ponds; infrequent.

Aceraceae (Maple Family)

- Acer negundo* L. Box-elder. Woods and low ground; common.
Acer saccharinum L. Soft Maple. Woods and low ground; common.
Acer saccharum Marsh. (Incl. *A. nigrum* Michx. f.) Sugar or Hard Maple. Occasionally cultivated; rare.

Amaranthaceae (Amaranth Family)

- Amaranthus tamariscinus* Nutt. (*Acnida tamariscina* (Nutt.) Wood) Water-hemp. Moist sandy soil; infrequent.

Anacardiaceae (Cashew Family)

- Rhus glabra* L. Smooth Sumac. Borders of wooded areas; common.
Rhus radicans L. Poison-ivy. Woods and thickets; common.

Apocynaceae (Dogbane Family)

- Apocynum cannabinum* L. Indian Hemp. Roadside ditches, grazed woods and gravel hills; common.

Araliaceae (Ginseng Family)

- Panax quinquefolium* L. Ginseng. Rich woods; rare.

Asclepiadaceae (Milkweed Family)

- Asclepias incarnata* L. Swamp Milkweed. Sloughs and lake margins; infrequent.
Asclepias nuttalliana Torr. Western prairie species; rare.
Asclepias syriaca L. Milkweed. Roadside and railroad prairie; common.
Asclepias tuberosa L. Butterfly-weed. Gravel hills and roadside prairie; frequent.
Asclepias verticillata L. Whorled Milkweed. Railroad and roadside prairie; common.
Asclepias viridiflora Raf. (*Acerates vividiflora* (Raf.) Eaton) Green Milkweed. Roadside prairie and gravel hills; common.

Balsaminaceae (Touch-me-not Family)

- Impatiens pallida* Nutt. Pale Touch-me-not. Rich woods; infrequent.

Berberidaceae (Barberry Family)

Caulophyllum thalictroides (L.) Michx. Blue Cohosh. Rich woods; infrequent.

Betulaceae (Birch Family)

Corylus americana Walt. Hazel. Woods and thickets; infrequent.

Ostrya virginiana (Mill.) K. Koch. Hop-born bean. Wooded areas; frequent.

Boraginaceae (Borage Family)

Hackelia virginiana (L.) I. M. Johnston (*Lappula virginiana* (L.) Greene) Beggar's Lice. Weedy and grazed woods; infrequent.

Lappula echinata Gilib. Dry railroad and roadside prairie; common.

Lithospermum canescens (Michx.) Lehm. Puccoon. Prairie areas; common.

Lithospermum incisum Lehm. (*L. angustifolium* Michx., not Forsk.) Gravel hills and dry prairies; common.

Onosmodium occidentale Mack. False Gromwell. Gravel hills and dry prairie; common.

Campanulaceae (Bluebell Family)

Campanula americana L. Tall Bellflower. Woods and thickets; infrequent.

Lobelia spicata Lam. Moist prairie and low ground; infrequent.

Capparidaceae (Caper Family)

Polanisia graveolens Raf. (*P. trachysperma* T. & G.) Clammy-weed. Gravel hills and sandy soil; frequent.

Caprifoliaceae (Honeysuckle Family)

Sambucus canadensis L. Elder. Woods and thickets; common.

Symphoricarpos occidentalis Hook Wolfberry. Margins of woods and prairie; common.

Viburnum rafinesquianum Schultes (incl. *V. pubescens* of authors, not (Ait.) Pursh, *V. molle* of authors, not Michx.) Wooded slopes; rare.

Caryophyllaceae (Pink Family)

**Lynchis alba* Mill. White Campion. Prairie weed; infrequent.

**Saponaria officinalis* L. Bouncing Bet. Escaping to roadside and railroad prairie and waste places; frequent.

Silene stellata (L.) Ait. f. Starry Campion. Upland woods and moist prairie; common.

Celastraceae (Bittersweet Family)

Euonymus atropurpureus Jacq. Wahoo. Woods and thickets; infrequent.

Chenopodiaceae (Goosefoot Family)

**Chenopodium album* L. Lambs-quarters. Weed of roadsides; common.

Chenopodium gigantospermum Aellen (*C. hybridum* of authors, not L.) Maple-leaved Goosefoot. Disturbed woods and waste places; frequent.

Chenopodium leptophyllum Nutt. (incl. *C. pratericola* Rybd.) Weed of gravel hills and open ground; infrequent.

Chenopodium standeyanum Aellen (incl. *C. boscianum* Mog.) Rich woods; frequent.

Compositae (Composite Family)

Achillea millefolium L. (Incl. *A. lanulosa* Nutt.) Yarrow. Roadside and railroad prairie; common.

Agoseris cuspidata (Pursh) Raf. Dry prairie and gravel hills; frequent.

Ambrosia artemisiifolia L. Small Ragweed. Dry disturbed ground, prairie, and gravel hills; common.

Ambrosia psilostachya DC. (incl. *A. cornifolia* T. & G.) Perennial Ragweed. Dry prairie and gravel hills; infrequent.

Ambrosia trifida L. Giant Ragweed. River banks, roadside prairie, and waste places; common.

**Anthemis cotula* L. Dog-fennel Weed of grazed woods and waste places; frequent.

**Arcetium minus* (Hill) Bernh. Burdock. Weedy woods and waste places; infrequent.

Artemisia ludoviciana Nutt. Dry prairie and gravel hills; frequent.

Aster drummondii Lindl. Wooded slope; rare.

Aster ericoides L. (*A. multiflorus* (Ait.) Frost Weed. Prairie areas and gravel hills; common.

Aster laevis L. Smooth Aster. Gravel hills and dry prairie; frequent.

Aster novae-angliae L. New England Aster. Upland prairie and gravel hills; infrequent.

Aster oblongifolius Nutt. Prairie and gravel hills; frequent.

Aster sericeus Vent. Silky Aster. Dry prairie and gravel hills; common.

Aster simplex Willd. (*A. paniculatus* Lam.; *A. interior* Wieg.) Wooded slope; rare.

Bidens cernua L. Margin of Mill Creek; rare.

Caecalia tuberosa Nutt. Upland prairie; rare.

**Carduus acanthoides* L. Roadside ditches and gravel hills; infrequent.

**Carduus nutans* L. Nodding Thistle. Weedy woods; infrequent.

Cirsium altissimum (L.) Spreng. Tall Thistle. Prairie remnants; infrequent.

Cirsium discolor (Muhl.) Spreng. Dry prairie; infrequent.

Cirsium flodmani (Rydb.) Arthur. Dry prairie and gravel hills; common.

Conyza canadensis (L.) Cron. (*Erigeron canadensis* L.) Horseweed. Weedy disturbed soil; common.

Coreopsis palmata Nutt. Tickseed. Prairie areas and gravel hills; frequent.

Dyssodia papposa (Vent.) Hitchc. Fetid Marigold. Gravel hills; infrequent.

Echinacea pallida Nutt. (incl. *E. angustifolia* DC.) Dry prairie and gravel hills; common.

- Erigeron annuus* (L.) Pers. Oaisy Fleabante. Dry woods; infrequent.
Erigeron philadelphicus L. Fleabane. Wooded areas; infrequent.
Erigeron strigosus Muhl. (*E. ramosus* of authors not Raf.) Fleabane. Railroad and roadside prairies and gravel hills; common.
Eupatorium altissimum L. Tall Thoroughwort. Dry prairie; rare.
Eupatorium perfoliatum L. Boneset. Margin of streams and rivers; infrequent.
Eupatorium purpureum L. Joe-Pye Weed. Moist woods; infrequent.
Eupatorium rugosum Houtt. White Snakeroot. Rich woods; infrequent.
Haplopappus spinulosus (Pursh) DC. Gravel hills; frequent.
⁶*Helianthus annuus* L. Common Sunflower. Dry prairie and gravel hills; common.
Helianthus grosseserratus Martens. Moist prairie and low ground; infrequent.
Helianthus laetiflorus Pers. (incl. *H. rigidus* (Cass.) Desf.) Open prairie and gravel hills; frequent.
Helianthus maximiliani Schrad. Dry prairie and gravel hills; infrequent.
Helianthus strumosus L. Woods species; rare.
Helianthus helianthoides (L.) Sweet Ox-eye. Prairie remnants; common.
Kuhnia eupatorioides L. False-boneset. Dry prairie; frequent.
Lactuca canadensis L. Wild Lettuce. Fields. open woods, and waste places; infrequent.
Lactuca floridana (L.) Gaertn. Blue Lettuce. Woods; infrequent.
Lactuca ludoviciana (Nutt.) Riddell Prairie Lettuce. Dry prairie and gravel hills; infrequent.
Lactuca pulchella (Pursh) DC. Fields, roadsides and waste areas; common.
⁷*Lactuca scariola* L. Prickly Lettuce. Weedy woods and waste places; infrequent.
Liatris aspera Rom. (*L. spherioidea* Michx. of authors) Blazing Star. Upland prairie; frequent.
Liatris punctata Hook. Prairie and gravel hills; frequent.
Liatris squarrosa (L.) Michx. Open prairie; infrequent.
Prenanthes aspera Michx. Open prairie; rare.
Prenanthes racemosa Michx. Prairie, R. F. Thorne, 1954; rare.
Ratibida columnifera (Nutt.) Wooton & Standl. Lion-headed Coneflower. Dry prairie and grazed woods; infrequent.
Ratibida pinnata (Vent.) Barnh. Coneflower. Prairie and grazed woods; infrequent.
Rudbeckia laciniata L. Tall Coneflower. Alluvial woods; rare.
Senecio plattensis Nutt. Prairie Ragweed. Prairie remnants and weedy woods; common.
Silphium laciniatum L. Compass Plant. Prairies; common.
Solidago altissima L. (incl. *S. canadensis* of authors) Tall Goldenrod. Dry prairie; frequent.
Solidago missouriensis Nutt. Dry prairie and gravel hills; common.
Solidago nemoralis Ait. Dry prairie and gravel hills; infrequent.
Solidago rigida L. Stiff Goldenrod. Dry prairie and gravel hills; infrequent.
⁸*Taraxacum erythrospermum* Andr. Red-seeded Dandelion. Yards nad open woods; infrequent.
⁹*Taraxacum officinale* Weber Common Dandelion; common weed.
¹⁰*Tragopogon dubius* Scop. (*T. major* Jacq.) Goat's-beard. Weed of roadsides and disturbed soil; common.
Vernonia fasciculata Michx. Ironweed. Low prairie and slough margins; infrequent.
Xanthium strumarium L. Cocklebur. Gravel hills and waste places; infrequent.

Convolvulaceae (Morning Glory Family)

- ¹¹*Convolvulus sepium* L. Bindweed. Fields and waste places; common.
Cuscuta cuspidata Engelm. Dodder. Alluvial woods; rare.
Cuscuta polygonorum Engelm. Dodder. Gravel hills; rare.

Cornaceae (Dogwood Family)

- Cornus drummondii* Meyer. Rough-eaved Dogwood. Woods; frequent.
Cornus racemosa Lam. Gray Dogwood. Woods; rare.

Cruciferae (Mustard Family)

- Arabis perstellata* E. L. Br. (incl. *A. dentata* (Torr.) T. & G. and *A. shortii* (Fern.) Gl.) Moist woods; infrequent.
¹²*Brassica kaber* (DC) L. C. Wheeler Charlock. Weed of railroad and roadside prairie; common.
¹³*Camelina microcarpa* Andr. False-flax. Gravel hills; rare.
¹⁴*Capsella bursa-pastoris* (L.) Medic. Shepherd's Purse. Common weed of yards and waste places.
Descurainia pinnata (Walt.) Britt. (*Sisymbrium canescens* of authors, not Nutt.) Prairie remnants and gravel hills; common.
Descurainia sophia (L.) Wedd. Dry prairie, waste places, and gravel hills; frequent.
Draba reptans (Lam.) Fern. Gravel hills; rare.
¹⁵*Erysimum cheiranthoides* L. Wormseed Mustard. Thickets and waste places; infrequent.
¹⁶*Erysimum inconspicuum* (Wats.) MacMill. Weedy roadside woods; rare.
¹⁷*Lepidium densiflorum* Schrad. (*L. apetalum* of authors, not Rich.)
Rorippa islandica (Oeder) Borbas. Marsh Cress. Sandy moist soil; common.
¹⁸*Sisymbrium altissimum* L. Tumbling Mustard. Roadside and railroad prairie and gravel hills; infrequent.
¹⁹*Sisymbrium officinale* (L.) Scop. Hedge Mustard. Waste places and weedy woods; infrequent.
²⁰*Thlaspi arvense* L. Pennycress. Prairie and waste places; common.

Cucurbitaceae (Gourd Family)

- Echinocystis lobata* (Michx.) T. & G. Wild Cucumber. Gravel hills and grazed woods; infrequent.

Elaeagnaceae (Oleaster Family)

**Elaeagnus angustifolia* L. Russian Olive. Escaping cultivation; infrequent.

Euphorbiaceae (Spurge Family)

Acalypha rhomboides Raf. Three-seeded Mercury. Weedy woods; infrequent.

Euphorbia corollata L. Flowering Spurge. Open prairie; infrequent.

Euphorbia dentata Michx. Gravel hills and prairie; frequent.

**Euphorbia esula* L. Weedy woods and gravel hills; infrequent.

Euphorbia glyptosperma Engelm. Dry soil and gravel hills; common.

Euphorbia heterophylla L. Wild Poinsettia. Margins of woods and thickets; infrequent.

Euphorbia maculata L. Spotted Spurge. Dry prairie and gravel hills; common.

Euphorbia marginata Pursh Snow-on-the-mountain. Waste places; prairies and gravel hills; common.

Euphorbia serpyllifolia Pers. Moist open prairie; infrequent.

Fagaceae (Beech Family)

Quercus macrocarpa Michx. Bur Oak. Woods; common.

Gentianaceae (Gentian Family)

Gentiana puberula Michx. Downy Gentian. Dry prairie and gravel hills; rare.

Guttiferae (St. John's wort Family)

**Hypericum perforatum* L. Dry woods, gravel hills and prairies; infrequent.

Hydrophyllaceae (Waterleaf Family)

Ellisia nyctelea L. Roadside ditches and waste places; common.

Hydrophyllum virginianum L. Waterleaf. Woods; common.

Juglandaceae (Walnut Family)

Carya cordiformis (Wang.) K. Koch Bitternut. Woods; infrequent.

Juglans nigra L. Black Walnut. Woods; common.

Labiatae (Mint Family)

Agastache nepetoides (L.) Ktze. Margins of woods and thickets; infrequent.

Agastache scrophulariaefolia (Willd.) Ktze. Shimek, 1929; rare.

Hedeoma hispida Pursh Rough Pennyroyal. Dry prairie and gravel hills; frequent.

**Leonurus cardiaca* L. Motherwort. Weed of waste places; rare.

Monarda fistulosa L. Wild Bergamot. Prairie remnants and waste places; infrequent.

**Nepeta cataria* L. Catnip. Roadsides and waste places; common.

Pycnanthemum virginianum (L.) Durand and Jackson. Mountain Mint. Moist soil; rare.

Scutellaria parvula Michx. (incl. *S. leonardii* Epl.) Prairie and gravel hills; infrequent.

Teucrium canadense L. (incl. *T. occidentale* Gray) Grazed weedy woods; infrequent.

Leguminosae (Legume Family)

Amorpha canescens Pursh Leadplant. Prairie and gravel hills; common.

Amphicarpa bracteata (L.) Fern. Hog-peanut. Woods, thickets and waste ground common.

Astragalus canadensis L. Milk-vetch. Prairies, thickets, and gravel hills; common.

Astragalus crasicarpus Nutt. (*A. caryocarpus* Ker.) Ground Plum. Prairies and gravel hills; common.

Astragalus lotiflorus Hook. Prairies and gravel hills; common.

Baptisia leucantha T. & G. False Indigo. Low prairie, Fox, 1941; Thorne, 1954; rare.

Chamaechrista fasciculata (Michx.) Greene Partridge-pea. Open prairie, sandy soil and gravel hills; common.

Desmodium canadense (L.) DC. Tick Trefoil. Open prairie and thickets; common.

Desmodium glutinosum (Muhl.) Wood (*D. acuminatum* (Michx.) DC.) Woods; frequent.

Desmodium illinoense Gray Moist prairie and gravel hills; rare.

Gleditsia triacanthos L. Honey Locust. Upland woods; rare.

Glycyrrhiza lepidota (Nutt.) Pursh Wild licorice. Prairies; Fox, 1941; rare.

Gymnocladus dioica (L.) Koch Kentucky Coffee Tree. Wooded slopes; rare.

Lathyrus venosus Muhl. Roadside and railroad prairies and waste places; common.

Lespedeza capitata (Michx.) Bush-clover. Prairies; infrequent.

**Medicago lupulina* L. Black Medic. Weed of prairies and waste places; common.

**Medicago sativa* L. Alfalfa. Weed of prairies and waste places; common.

**Melilotus alba* Desr. White Sweet-clover. Weed of prairies and waste places; common.

**Melilotus officinalis* (L.) Lam. Yellow Sweet-clover. Weed of prairies and waste places; common.

Petalostemum candidum (Willd.) Michx. White Prairie-clover. Railroad and roadside prairies; common.

Petalostemum purpureum (Vent.) Rydb. Purple Prairie-clover. Prairies and gravel hills; common.

Psoralea argophylla Pursh Dry prairie; infrequent.

Psoralea esculenta Pursh Breadroot. Dry prairie and gravel hills; infrequent.

**Trifolium pratense* L. Red Clover. Roadside and railroad prairie and waste places; common.

**Trifolium repens* L. White Clover. Roadsides, lawns, and fields; common.

Vicia americana Muhl. American Vetch. Railroad and roadside ditches; frequent.

Linaceae (Flax Family)

Linum sulcatum Riddell Open prairies; infrequent.

Malvaceae (Mallow Family)

- **Hibiscus trionum* L. Flower-of-an-hour. Prairie; Pammel, 1924; rare.
 **Malva neglecta* Wallr. (*M. rotundifolia* not L.) Cheeses. Weed of lawns and waste places; frequent.

Menispermaceae (Moonseed Family)

- Menispermum canadense* L. Moonseed. Woods; common.

Moraceae (Mulberry Family)

- **Cannabis sativa* L. Hemp. Weed of roadsides and gravel hills; common.
 **Humulus lupulus* L. Common Hop. Woods, thickets, and sandy soil; infrequent.
 **Morus alba* L. White Mulberry. Woods and waste places; common.

Nyctaginaceae (Four-o'clock Family)

- Mirabilis albida* (Walt.) Heimerl Gravel hills; rare.
Mirabilis hirsuta (Pursh) Mac M. Dry prairie and gravel hills; frequent.
Mirabilis nyctaginea (Michx.) Mac M. Roadside and railroad prairie and waste places; common.

Oleaceae (Olive Family)

- Fraxinus pennsylvanica* Marsh (incl. *F. lanceolata* Berkh.) Green Ash. Margins of rivers, woods and thickets; common.

Onagraceae (Evening-primrose Family)

- Circaea quadrifida* (Maxim.) Franch. & Sav. Enchanter's-nightshade. Rich woods; common.
Oenothera biennis L. Evening-primrose. Weed of roadsides and waste places; frequent.
Oenothera serrulata Nutt. Dry prairie and gravel hills; common.

Oxalidaceae (Wood-sorrel Family)

- Oxalis europaea* Jord. Lady's-sorrel. Weed of roadsides and waste places; common.
Oxalis violacea L. Violet Wood-sorrel. Prairie; frequent.

Papaveraceae (Poppy Family)

- **Chelidonium majus* L. Swallowwort. Rich woods; rare.
Corydalis micrantha (Engelm.) Gray Roadside ditches and gravel hills; infrequent.
Dicentra cucullaria (L.) Bernh. Dutchman's breeches. Rich woods slopes; frequent.
Sanguinaria canadensis L. Bloodroot. Rich woods; infrequent.

Plantaginaceae (Plantain Family)

- **Plantago major* L. Common Plantain. Weed of lawns and waste places; frequent.
Plantago rugelii R. & S. Gravel hills and dry prairie; frequent.
Plantago rugelii Dene. Plantain. Weed of roadsides and woods; common.

Polemoniaceae (Phlox Family)

- Phlox divaricata* L. Blue Phlox. Rich woods; infrequent.
Phlox pilosa L. Prairie Phlox. Railroad and roadside prairie; common.
Polemonium reptans L. Jacob's Ladder. Rich woods; frequent.

Polygonaceae (Buckwheat Family)

- **Polygonum convolvulus* L. Black Bindweed. Gravel hills and roadside prairie; infrequent.
Polygonum lapathifolium L. Pae Smartweed. Margins of ponds and waste places; frequent.
Polygonum pensylvanicum L. Pinkweed. Margins of streams and ponds; frequent.
 **Polygonum persicaria* L. Lady's Thumb. Weed of gravel hills and wet prairie; common.
Polygonum ramosissimum Michx. Bushy Knotweed. Dry prairie and gravel hills; infrequent.
Polygonum virginianum L. Jumpseed. Rich woods; infrequent.
Rumex altissimus Wood Pale Dock. Moist prairie and weedy woods; common.
 **Rumex crispus* L. Curly Dock. Weed of roadsides and sandy soil; common.

Portulacaceae (Purslane Family)

- Claytonia virginica* L. Spring Beauty. Rich woods; infrequent.
 **Portulaca oleracea* L. Common Purslane. Weed of lawns and gardens; infrequent.

Primulaceae (Primrose Family)

- Androsace occidentalis* Pursh Sandy soil and gravel hills; infrequent.
Lysimachia ciliata L. Fringed Loosetrife. Weedy woods, roadsides, and waste places; frequent.

Ranunculaceae (Buttercup Family)

- Actaea rubra* (Ait.) Willd. Red Baneberry. Rich woods; frequent.
Anemone canadensis L. Meadow Anemone. Prairie and sandy soil; common.
Anemone cylindrica Gray Thimbleweed. Dry prairie and gravel hills; common.
Anemone patens L. Pasque-flower. Dry prairie and gravel hills; common.
Anemone virginiana L. (incl. *A. riparia* Fern.) Woods and thickets; infrequent.
Aquilegia canadensis L. Columbine. Alluvial woods and slopes; common.
Delphinium virescens Nutt. Prairie Larkspur. Dry prairie and gravel hills; common.
Hepatica acutiloba DC. Liverleaf. Moist wooded slopes; rare.

- Isopyrum biternatum* (Raf.) T. & G. False Rue-anemone. Alluvial woods; rare.
Ranunculus abortivus L. Small-flowered Crowfoot. Rich woods and moist ground; common.
Ranunculus septentrionalis Poir. Swamp Buttercup. Moist prairie and open places; rare.
Thalictrum dasycarpum Fisch. & Lall. Meadow-rue. Moist soil, low ground and woods; common.

Rhamnaceae (Buckthorn Family)

- Ceanothus americanus* L. New Jersey Tea. Moist prairie and gravel hills; frequent.
Ceanothus ovatus Desf. Prairie and gravel hills; common.

Rosaceae (Rose Family)

- Agrimonia gryposepala* Wallr. Agrimony. Woods and thickets; rare.
Agrimonia pubescens Wallr. Woods; infrequent.
Crataegus mollis (T. & G.) Scheele Woods; frequent.
Crataegus punctata Jacq. Moist wooded slopes; rare.
Crataegus succulenta Link Woods and thickets; infrequent.
Fragaria vesca L. Woodland Strawberry. Woods and thickets; infrequent.
Fragaria virginiana Duch. Prairie remnants; common.
Geum oadense Jacq. White Avens. Woods; common.
Geum laciniatum Murr. Rough Avens. Alluvial woods; rare.
Potentilla arguta Pursh Prairie Cinquefoil. Dry prairie and gravel hills; infrequent.
Potentilla norvegica L. (incl. *P. monopetala* L.) Rough Cinquefoil. Moist prairie and wooded slopes; common.
Potentilla recta L. Sulfur Cinquefoil. Moist prairie; rare.
Prunus americana Marsh. Wild Plum. Woods and waste places; common.
Prunus virginiana L. Choke Cherry, thickets and waste places; common.
 **Pyrus malus* L. Escaping cultivation; rare.
Rosa blanda Ait. Wood Rose. Wooded slopes, prairie remnants, and waste places; common.
Rosa suffulta Greene (*R. arkansana* of authors, not Hill) Prairie Rose. Roadside and railroad prairies; common.
Rubus occidentalis L. Black Raspberry. Woods and thickets; common.

Rubiaceae (Madder Family)

- Galium aparine* L. Cleavers. Moist woods; common.
Galium boreale L. Northern Bedstraw. Moist rich soil; infrequent.
Galium concinnum Torr. & Gray Woods; infrequent.
Galium triflorum Michx. Sweet-scented Bedstraw. Moist woods; frequent.

Rutaceae (Rue Family)

- Xanthoxylum americanum* Mill. Prickly-ash. Woods; common.

Salicaceae (Willow Family)

- Populus deltoides* Marsh. Cottonwood. Woods, roadsides and waste places; common.
Salix amygdaloides Anderss. Peach-leaved Willow. Alluvial soil and wet places; common.
Salix interior Rowlee. Sandbar Willow. Margins of ponds and rivers; common.
Salix rigida Muhl. Margins of streams and rivers and moist woods; common.

Santalaceae (Sandalwood Family)

- Comandra umbellata* (L.) Nutt. (incl. *C. richardsoniana* Fern.) Bastard-toad flax. Gravel hills; common.

Saxifragaceae (Saxifrage Family)

- Heuchera richardsonii* R. Br. Alum Root. Dry woods, prairies and gravel hills; common.
Ribes americanum Mill. Wild Black Currant. Moist thickets, and margins of streams and rivers; rare.
Ribes cynosbati L. Prickly Gooseberry. Moist wooded slopes; rare.
Ribes missouriense Nutt. Wild Gooseberry. Woods and thickets; common.

Scrophulariaceae (Figwort Family)

- Castilleja sessiliflora* Pursh Dry prairie and gravel hills; infrequent.
Penstemon grandiflorus Nutt. Dry prairie and gravel hills; common.
Scrophularia lanceolata Pursh. Dry prairie; frequent.
 **Verbascum thapsus* L. Common Mullein. Prairies and waste places; frequent.

Solanaceae (Nightshade Family)

- Physalis heterophylla* Ness Prairies, sandy soil, and waste places; common.
Physalis longifolia Nutt. (incl. *P. subglabrata* M. & B.) Dry prairie, sandy soil and waste places; frequent.
Physalis virginiana Mill. Gravel hills and waste places; common.
 **Solanum nigrum* L. Black Nightshade. Moist woods, sandy soil and waste places; common.
 **Solanum rostratum* Dunal. Buffalo-bur. Weed of waste places; frequent.

Tiliaceae (Basswood Family)

- Tilia americana* L. Basswood, Linden. Woods; common.

Ulmaceae (Elm Family)

- Celtis occidentalis* L. Hackberry. Woods and thickets; common.
Ulmus americana L. Elm. Woods and thickets; common.

Ulmus rubra Muhl. Red or Slippery Elm. Woods; infrequent.
Ulmus thomasi Sarg. Rock Elm. Rich woods; rare.

Umbelliferae (Parsley Family)

Crypttoaenia canadensis (L.) DC. Honeywort. Moist woods; common.
Heracleum lanatum Michx. (*H. maximum* Bartr.) Moist woods and thickets; rare.
Lomatium orientale C. & R. Gravel hills and prairies; infrequent.
Osmorhiza longistylis (Torr.) DC. Woods; common.
**Pastinaca sativa* L. Wild Parsnip. Moist ground nd waste places; frequent.
Sanicula canadensis L. Black Snakeroot. Rich woods; frequent.
Sanicula marilandica L. Thickets and open woods; infrequent.
Thaspium barbinode (Michx.) Nutt. Meadow-parsnip. Wooded slopes; rare.
Zizia aurea (L.) W. D. J. Koch Golden Alexanders. Moist prairie, woods and thickets; common.

Urticaceae (Nettle Family)

Laportea canadensis (L.) Wedd. Wood Nettle. Alluvial woods; frequent.
Parietaria pensylvanica Muhl. Pellitory. Woods, thickets, and waste places; common.
Urtica dioica L. (*U. procera* Muhl.) Stinging Nettle. Alluvial woods and waste places; common.

Verbenaceae (Vervain Family)

Verbena bracteata Lag. & Rodr. Prairie, gravel hills and waste places; common.
Verbena hastata L. Blue Vervain. Moist ground, sandy soil and waste places; common.
Verbena stricta Vent. Hoary Vervain. Gravel hills and waste places; common.
Verbena urticifolia L. White Vervain. Woods; frequent.

Violaceae (Violet Family)

Viola nephrophylla Greene Roadside prairie; infrequent.
Viola pedatifida G. Don. Prairie Violet. Dry prairie; common.
Viola pensylvanica Michx. Stemmed Yellow Violet. Alluvial woods; frequent.
Viola sororia Willd. Alluvial woods; common.

Vitaceae (Grape Family)

Parthenocissus quinquefolia (L.) Planch. Virginia Creeper. Woods; frequent.
Vitis riparia Michx. (*V. vulpina* of authors, not L.) Riverbank Grape. Woods, moist soil nd thickets; common.

STATISTICAL SUMMARY

Components of the flora of Cherokee County, Iowa.

Major Groups of Tracheophyta	Species	Genera	
	Native	Naturalized	
"Pteridophytes"	3	0	3
Conifers	1	0	1
Monocotyledons	86	14	56
Dictotyledons	248	49	185
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	338	63	245

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