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BULLETIN NO. 45.

MARCH, 1900.

AN ANNOTATED CATALOG OF THE FERNS AND
FLOWERING PLANTS OF OKLAHOMA.

E. E. BOGUE.



An Oklahoma Elm.

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STILLWATER, OKLAHOMA.

Oklahoma Agricultural and Mechanical College, Agricultural Experiment Station.

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AN ANNOTATED CATALOG OF THE FERNS AND FLOW-
ERING PLANTS OF OKLAHOMA.

E. E. BOGUE.

INTRODUCTION.

This is the first attempt at a catalog of the plants of this territory; hence it is not expected that it will contain, by a few hundred species, all the plants that grow without cultivation within its borders.

The area of the territory, as at present defined, is approximately that of Ohio, 39,030 square miles. A part of Indian Territory intervenes between Oklahoma and Arkansas and Missouri on the east. Kansas is adjacent to 310 miles on the east end of the northern border and Colorado the remaining forty miles. A strip on the northwest, thirty-five miles north and south by 140 miles east and west, included in Beaver County, is limited on the west by New Mexico, the rest of the territory being hemmed in by Texas and the Indian Territory. Its latitude is approximately that of Tennessee, from a little less than thirty-five degrees to even thirty-seven degrees north, and its longitude is about the same as that of South Dakota, from about ninety-six degrees to 103 degrees west.

The region lying to the northeast of Oklahoma proper, called Osage nation, is included in the distribution of species. Pawhuska is in that portion. It is at present under the jurisdiction of Oklahoma and holds its courts at Pawnee, the county seat of the county of the same name that joins it on the south.

There are few regions of equal extent in our country that have received as little attention from botanists. From this one might expect that several undescribed species would be brought

to light. Many interesting variations have been observed, some of which have been mentioned in the catalog, but none have been found that seemed to warrant the propriety of extending the list of names where there was no other distinction than that which might occur under the peculiar conditions of environment.

The floras of the northeastern United States are only intended to include as far south as Kansas. Chapman's Flora of the Southern United States does not cover this region. Coulter's Flora of Western Texas, while it contains many plants found here, does not aim to include all of them. The Rocky Mountain Flora contains some but not all of the plants. Thus it will be seen that this region has been approached from all sides but no pretense has ever been made to include its flora except those plants belonging to the orders included in the published parts of Gray's Synoptical Flora.

Contributions from the United States National Herbarium Vol. I, No. VI, issued December 6, 1892, contains a list of 300 species and varieties of plants collected by Mr. C. S. Sheldon, whose work was chiefly in what is still Indian Territory lying to the south of Oklahoma, and a list of 480 species and varieties collected by M. A. Carleton during June, July and August in various parts of Oklahoma and adjacent parts of Indian Territory, New Mexico, Kansas and Texas. Notes and remarks on species and regions are presented in the publication.

A three and one-half page paper by Mr. E. W. Olive on Observations upon some Oklahoma Plants, is found in the Bulletin of the Torrey Botanical Club for September, 1895. The occurrence of a number of species and the peculiarities of some regions are mentioned.

The line of some of the early surveys passed across the region and in reports of those surveys may be found more or less information on the plants of Oklahoma. On account of recently established boundary lines the localities there mentioned might not be very helpful to present investigators.

Dr. J. W. Blankinship, of Bozeman, Montana, who has identified a large number of specimens and otherwise helped toward the preparation of the catalog, has a good collection of the plants of the territory but he has published nothing in regard to them.

Therefore the bibliography of the botany of Oklahoma is

confined, as far as the knowledge of the present writer goes, to the above mentioned publications.

The object of this bulletin is to furnish information in regard to the plants of the territory growing without cultivation and to furnish a basis for further work along this line. For the use of those who are not familiar with botanical terms the common or English names are presented. In most cases where a common name could not be found for a species one considered appropriate is submitted. In some cases a name not before published is that most often used by the people living in the region where the plant grows. In a few cases no common name is given. This obtains from the writer not considering himself sufficiently familiar with the plant to give it an English name.

The arrangement and nomenclature is that adopted by Britton and Brown in their Illustrated Flora and by A. A. Heller in his Catalog of the Plants of North America North of Mexico. A few names are used that are not found in either of these publications.

The catalog is based somewhat on observations made by the author in traveling over the territory during the past four years. This must not be interpreted to mean that the catalog here presented is one of observations for nearly every name is supported by a specimen in the herbarium of the Experiment Station, collected and prepared by the author himself or under his immediate supervision.

It has not been considered advisable to attempt to include the plants of the Indian Territory. Information is not at hand that would furnish an intelligent account of the flora of that region.

In some instances the county only is mentioned when the exact locality is known. Many localities are followed by the name of J. W. Blankinship which does not necessarily mean that he collected the species there himself but that he has received from one or more collectors the plants from the regions thus indicated. Brevity with clearness has been the object.

Among the regions that promise to yield rich returns from further investigation may be mentioned that of Little River in the southern part of the territory; regions beyond the Cimarron River in the southwestern part, and certain regions in the extreme eastern and western portions of the territory.

Some of the specimens have been compared by Dr. Blankin-

ship with the Gray Herbarium at Harvard. The present writer regrets exceedingly not having had access to large and authentic collections and extensive literature. Probably several of the names here used are synonyms.

The authorities of the Territorial University at Norman have kindly loaned their collection of plants from the territory for inspection before the publication of this bulletin.

This department is always pleased to make determinations of plants from the territory and to furnish such other information as it may have at hand.

CATALOG

PTERIDOPHYTA.—THE FERNS AND FERN-LIKE PLANTS.

OPHIOGLOSSACEÆ.—ADDER'S-TONGUE FAMILY.

Botrychium Virginianum (L.) Sw. Virginia Grape-fern.
Logan County. G. W. Stevens.

POLYPODIACEÆ.—THE TRUE FERNS.

Adiantum Capillus-Veneris L. Venus-hair Fern. Logan
County. G. W. Stevens.

Asplenium platyneuron (L.) Oakes. Ebony Spleen-wort.
Payne and Lincoln Counties.

Asplenium Trichomanes L. Maidenhair Spleenwort. One
specimen from Pawhuska, C. E. Regnier, collector.

Cheilanthes lanosa (Michx.) Walt. Hairy Lip-fern. One
specimen from Pawhuska.

Cystopteris fragilis (L.) Benth. Brittle Fern. Payne and
Lincoln Counties.

Dryopteris achrostichoides (Michx.) Kuntze. Christmas Fern.
Pawhuska.

Dryopteris marginalis (L.) A. Gray. Evergreen Wood-fern.
At Pawhuska and Tecumseh, Pottawatomie County. Plants
much smaller than the eastern form. Mr. Blankinship sug-
gests that this may be a distinct variety.

Pellea atropurpurea (L.) Link. Purple-stemmed Cliff-fern.
Frequent on rocks long exposed to the sun.

Woodsia obtusa (Spreng.) Torr. Blunt-lobed Woodsia. Com-
mon on rock in shaded situations.

MARSILEACEÆ.—MARSILEA FAMILY.

Marsilea vestita Hook. & Green. Hairy Marsilea. Frequent
in "buffalo wallows" and natural ponds.

EQUISETACEÆ.—SCOURING-RUSH FAMILY.

Equisetum hyemale L. Common Scouring-rush. Frequent
along streams near the water.

Equisetum robustum A. Br. Stout Scouring-rnsh. Occasional along streams near the water.

SPERMATOPHYTA.—SEED-BEARING PLANTS.

GYMNOSPERMÆ.—PLANTS WITH NAKED SEEDS.

PINACEÆ.—PINE FAMILY.

Juniperus Virginiana L. Red Cedar. Frequent along the large streams in the eastern part of the territory.

ANGIOSPERMÆ.—PLANTS WITH COVERED SEEDS.

MONOCOTYLEDONES.—PLANTS WITH ONE SEED LEAF.

TYPHACEÆ.—CAT-TAIL FAMILY.

Typha latifolia L. Broad-leaved Cat-tail. Rare in wet places.

NAIADACEÆ.—THE NAIAD FAMILY.

Naias Guadaloupensis (Spreng.) Morong. Guadeloupe Naias. Osage Nation. J. W. Blankinship.

Patamogeton lonchites Tuck. Long-leaved Pondweed. In a natural pond near Perkins, Payne County.

ALISMACEÆ.—WATER-PLANTAIN FAMILY.

Alisma tenellum Mart. Dwarf Water Plantain. In natural pond near Perkins, Payne County.

Echinodorus radicans (Nutt.) Engelm. Creeping Bar-head. In natural pond near Perkins, Payne County. J. W. Blankinship.

Lophotocarpus calycinus (Engelm.) J. G. Smith. Lophotocarpus. In natural pond near Perkins, Payne County.

Sagittaria ambigua J. G. Smith. Kansas Sagittaria. In natural pond near Perkins, Payne County.

Sagittaria rigida Pursh. Sessile-fruited Arrow-head. In natural pond near Perkins, Payne County.

GRAMINEÆ.—GRASS FAMILY.

Agropyron repens (L.) Beauv. Couch-grass. One specimen from Norman, Cleveland County.

Agropyron spicatum S. & S. At Stillwater, Payne County.

Agropyron glaucum (Desv.) R. & S. Smooth Couch-grass. Frequent in the eastern and southern parts of the territory.

Agrostis alba L. Red-top. One specimen from Stillwater.

Agrostis hyemalis (Walt.) B. S. P. Rough Hair-grass. One specimen from Fouts, Lincoln County. Laura A. Blankinship, collector.

Alopecurus geniculatus L. Marsh Fox-tail. Frequent in moist places.

Andropogon furcatus Muhl. Forked Beard-grass. A common prairie grass.

Andropogon scoparius Michx. Broom Beard-grass. This with the Forked Beard-grass are the two most important prairie grasses in eastern and southern Oklahoma and are valuable for green and dry forage.

Andropogon Torreyanus Steud. Torrey's Beard-grass. Common on prairies.

Aristida dispersa Trin. & Rupr. Bushy Aristida. Frequent on prairies in Payne County.

Aristida oligantha Michx. Few-flowered Aristida. Payne County. J. W. Blankinship.

Aristida purpurascens Poir. Purplish Aristida. A common prairie grass.

Aristida purpurea Nutt. Purple Aristida. A common prairie grass.

Bouteloua certipendula (Michx.) Torr. Racemed Bouteloua. Frequent on dry prairies.

Bouteloua hirsuta Lag. Hairy Mesquite-grass. A common prairie grass in eastern and southern Oklahoma.

Bouteloua oligostachya (Nutt.) Torr. Grama-grass. Mesquite grass. Often confused with Hairy Mesquite-grass.

Bromus ciliatus purgans A. Gray. Hairy-scaled Bromus. One specimen from Fouts, Lincoln County. Submitted by J. W. Blankinship.

Bromus secalinus L. Cheat or Chess. In Payne County.

Bulbilis dactyloides (Nutt.) Raf. Buffalo-grass. This occurs frequently in eastern Oklahoma, but in the western part of the territory it forms the chief grass of the prairies and affords the chief forage in the "short-grass" country.

Capriola dactylon (L.) Kuntze. Bermuda grass. Escaped from cultivation in a few places in eastern and southern Oklahoma.

Cenchrus tribuloides L. Bur-grass. Common and troublesome in moist soil.

Chloris elegans H. B. K. Tall Chloris. Collected at Stillwater by S. E. Myers.

Chloris verticillata Nutt. Prairie Chloris. Frequent throughout the territory.

Chrysopogon avenaceus (Mx.) Benth. Indian grass. A common and beautiful prairie grass.

Cinna arundinacea L. Wood-Reed-grass. One specimen collected by J. C. Neal, presumably at Stillwater, Payne County.

Dactylis glomerata L. Orchard-grass. Has been introduced and may be expected to occur sparingly.

Dactyloctenium Aegyptiacum (L.) Willd. Egyptian grass. In rich soil near buildings.

Distichlis spicata (L.) Green. Marsh Spike-grass. One specimen collected near the Cimarron river in Payne County.

Eatonia obtusata (Michx.) A. Gray. Blunt-scaled Eatonia. Reported from Fouts, Lincoln County, by J. W. Blankinship.

Elymus Canadensis L. Nodding Wild Rye. One specimen from Kingfisher County, J. W. Blankinship.

Elymus robustus Scribn. & Smith. Large Wild Rye. The more common species in wet places.

Elymus Virginicus L. Virginia Wild Rye. One specimen from Payne County, O. M. Morris.

Eragrostis capillaris (L.) Nees. Capillary Eragrostis. One specimen from near Cimarron river, Payne County.

Eragrostis curtipedicellata Buckley. Short-stalked Eragrostis. One specimen from Kingfisher County, J. W. Blankinship.

Eragrostis hypnoides (Lam.) B. S. P. Creeping Eragrostis. One specimen from White Rock. S. E. Myers, collector.

Eragrostis major Host. Strong-scented Eragrostis. Frequent on prairies.

Eragrostis pectinacea (Michx.) Steud. Frequent in moist places.

Eragrostis pilosa (L.) Beauv. Tufted Eragrostis. One specimen from Payne County.

Eragrostis Purshii Schrad. Pursh's Eragrostis. Rather common in dry soil on roadsides and around buildings.

Eragrostis refracta (Muhl.) Scrib. Meadow Eragrostis. One specimen collected by J. C. Neal, presumably at Stillwater, Payne County.

Eragrostis secundiflora Presl. Clustered Eragrostis. Frequent in eastern and southern Oklahoma.

Eragrostis tenuis (Ell.) A. Gray. Tall Eragrostis. One specimen from Stillwater, Payne County.

Eragrostis tenuis Texensis Vasey. Slender Eragrostis. Baker, Lincoln County, J. W. Blankinship.

Eragrostis trichodes (Nutt.) Nash. Hair-like Eragrostis. Abundant on sand dunes along Cimarron river.

Eriochloa punctata (L.) W. Hamilt. Dotted Millet. Two specimens from Stillwater.

Festuca elatior L. Meadow Fescue-grass. Frequent on prairies in Payne County.

Festuca nutans Willd. Nodding Fescue-grass. Less common than Meadow Fescue-grass in similar habitat.

Festuca octoflora Walt. Slender Fescue-grass. Common. One of the early spring grasses.

Gymnopogon ambiguus (Michx.) B. S. P. Broad-leaved Gymnopogon. Frequent on prairies.

Homalocenchrus Virginica (Willd.) Britt. White grass. Common in moist or shaded situations.

Hordeum jubatum L. Squirrel-tail grass. Frequent on dry prairies.

Hordeum pusillum Nutt. Little Barley. Stillwater, Payne County.

Imperata Hookeri Rupr. Hooker's Imperata. One specimen from Cleveland County. A. B. McReynolds, collector.

Ixophorus viridis (L.) Nash. Green Foxtail-grass. Assumes weedy character in some places.

Korycarpus diandrus (Mx.) Kuntze. One specimen from Perry, Noble County, S. E. Myers, collector.

Leptochloa mucronata (Michx.) Kunth. Northern Leptochloa. One specimen collected by J. C. Neal, presumably at Stillwater, Payne County.

Manisurus cylindrica (Michx.) Kuntze. Rat-tail grass. Common on the prairies.

Melica mutica Walt. Narrow Melic-grass. One specimen collected by J. C. Neal, presumably at Stillwater, Payne County.

Muhlenbergia capillaris (Lam.) Trin. Long-awned Hair-grass. Fouts, Lincoln County, J. W. Blankinship.

Muhlenbergia diffusa Willd. Drop-seed grass. Payne County.

Muhlenbergia Mexicana (L.) Trin. Meadow Muhlenbergia. Common in moist situations.

Muhlenbergia racemosa (Michx.) B. S. P. Marsh Muhlenbergia. Common in moist situations.

Panicularia nervata (Willd.) Kuntze. Nerved Manna-grass.

One specimen collected by J. C. Neal, presumably in Payne County.

Panicum amarum Ell. Sea-beach Panicum. One specimen collected by S. E. Myers at Stillwater. Out of the usual range but seems to be this species. "Needs comparison," J. W. Blankinship.

Panicum autumnale Bosc. Diffuse Panicum. Payne County.

Panicum capillare L. Witch Grass. Frequent in Kingfisher County.

Panicum Crus-galli L. Barnyard Grass. Common in rich soil.

Panicum dichotomum L. Forked Panicum. Common on prairies.

Panicum nitidum pilosum Vasey. Not given in lists at hand and may be synonymous with something else. One specimen submitted by J. W. Blankinship, collected by Laura Blankinship at Fouts, Lincoln County.

Panicum proliferum Lam. Spreading Panicum. Frequent in Payne County.

Panicum pubescens Lam. Hairy Panicum. Common on prairies.

Panicum rostratum Muhl. Beaked Panicum. Occasional on prairies.

Panicum scoparium Lam.

Panicum scoparium S. Watts is synonymous with *Panicum Scribnerianum* Nash. The specimen at hand collected at Stillwater answers very well the description of the latter and would perhaps be considered that species.

Panicum sphærocarpon Ell. Round-fruited Panicum. Fouts, Lincoln County, J. W. Blankinship.

Panicum virgatum L. Tall Smooth Panicum. Common in moist places, often confused with Johnson Grass.

Paspalum Floridanum Michx. Florida Paspalum. Frequent in moist places.

Paspalum glabratum (Engelm.) Mohr. Payne County.

Paspalum leve Michx. Field Paspalum. Occasional in moist places.

Paspalum setaceum Michx. Slender Paspalum. Occasional on prairies.

Paspalum ciliatifolium Michx. Ciliate-leaved Paspalum. Payne County.

Phalaris Caroliniana Walt. Carolina Canary Grass. Along streams in moist shaded places.

Poa arachnifera Torr. Texas Blue Grass. Frequent in rich soil. Probably valuable for this region if cultivated.

Poa arachnifera glabrata Vasey. Smooth Texas Blue Grass. Same habitat as Texas Blue Grass.

Poa arida Vasey. Prairie Spear Grass. One specimen from Lincoln County, collected by Laura A. Blankinship.

Poa compressa L. Wire-grass. Kingfisher County. J. W. Blankinship.

Schedonnardus paniculatus (Nutt.) Trel. Schedonnardus. Frequent on dry prairies.

Sieglingia sesleroides (Michx.) Scribn. Tall Red-Top. Frequent on prairies.

Sieglingia stricta (Nutt.) Kuntze. Narrow Sieglingia. In bunches on low prairies.

Sorghum Halapense (L.) Pers. Johnson-Grass. Introduced from Texas. Considered by many as a most troublesome weed and by others as a most valuable forage plant. It is very tenacious in rich, moist, bottom soil but does not cause much trouble on dry, less fertile prairies.

Sorghum vulgare Durra. Kafir Corn. Extensively cultivated and often volunteer along roadsides, etc.

Spartina cynosuroides (L.) Willd. Tall Marsh Grass. Grows rank in spots where soil has washed in from hills and become deep. The roots often buried a foot or more.

Sporobolus argutus (Nees.) Kunth. Pointed Dropseed Grass. Kingfisher County, J. W. Blankinship.

Sporobolus asperifolius (Nees.) Thurb. One specimen from near the Cimarron river in Kingfisher County.

Sporobolus cryptandrus (Torr.) A. Gray. Sand Dropseed. One specimen from Payne County.

Sporobolus vaginaeflorus (Torr.) Wood. Sheathed Rush Grass. Frequent in Payne County.

Syntherisma sanguinalis (L.) Nash. Crab-grass. One of the worst weeds in cultivated and waste soil. Readily eaten by stock of all kinds.

Tripsacum dactyloides L. Gama Grass. Frequent in wet places.

Uniola latifolia Michx. Broad-leaved Spike Grass. Common in shade along streams.

CYPERACEÆ.—SEDE FAMILY.

Carex Brittoniana Bailey. Britton's Sedge. Lincoln County, J. W. Blankinship.

Carex cephaloides Dewey. Thin-leaved Sedge. One specimen from Lincoln County, J. W. Blankinship.

Carex festucacea Willd. Fescue Sedge. Frequent in moist soil.

Carex Frankii Kunth. Frank's Sedge. Lincoln County, J. W. Blankinship.

Cyperus acuminatus Torr. & Hook. Short-pointed Cyperus. Common in wet soil.

Cyperus filiculmis Vahl. Slender Cyperus. Common in dry soil.

Cyperus Hallii Britton. Hall's Cyperus. Lincoln County, J. W. Blankinship.

Cyperus inflexus Muhl. Awned Cypres. In wet places, Payne County.

Cyperus ovularis (Michx.) Torr. Globose Cyperus. One specimen from near Canadian river, Cleveland County.

Cyperus pseudovegetus Steud. Marsh Cyperus. In wet places in Payne County.

Cyperus rotundus L. Nut-grass. Frequent in moist soil.

Cyperus strigosus L. Straw-colored Cyperus. Grows rank in wet places.

Eleocharis atropurpurea (Retz.) Kunth. Purple Spike-rush. Natural pond near Perkins, Payne County.

Eleocharis Engelmanni Steud. Elgelemann's Spike-rush. Natural pond near Perkins, Payne County.

Eleocharis palustris (L.) R. & S. Creeping Spike-rush. In wet soil, Payne County, O. M. Morris.

Fimbristylis castanea (Michx.) Vahl. Marsh Fimbristylis. Frequent in wet places.

Fimbristylis laxa Vahl. Weak Fimbristylis. Occasional in wet places.

Scirpus Americanus Pers. Three-square. Frequent in wet places.

Scirpus atrovirens Muhl. Dark Green Bulrush. Lincoln County, J. W. Blankinship.

Scirpus lineatus Michx. Reddish Bulrush. Frequent in moist places.

Scleria pauciflora Muhl. Papillose Nut-rush. Lincoln County, J. W. Blankinship.

Stenophyllus capillaris (L.) Britt. Hair-like Stenophyllus. Common in wet places.

ARACEÆ.—ARUM FAMILY.

Arisæma Dracontium (L.) Schott. Green Dragon. Frequent in moist rich soil in shaded situations.

COMMELINACEÆ.—SPIDERWORT FAMILY.

Commelina erecta L. Slender Day-flower. In moist places along streams.

Commelina nudiflora L. Creeping Day-flower. In moist places along streams.

Commelina Virginica angustifolia Clarke. Narrow-leaved Day-flower. Frequent according to collections of J. W. Blankinship.

Tradescantia Virginiana L. Spiderwort. Common on rich prairies.

Tradescantia Virginiana occidentalis Britt. Western Spiderwort. Kingfisher County. J. W. Blankinship. Several forms of this genus are found here. The flowers of some are bright pink and others are blue, while the foliage is variable. The plants of the genus found here deserve careful study.

PONTEDERIACEÆ.—PICKEREL-WEED FAMILY.

Heteranthera limosa (Sw.) Willd. Smaller Mud Plantain. In water; Stillwater, S. E. Myers, collector.

Heteranthera reniformis R. & P. Mud Plantain. In natural pond near Perkins, Payne County.

JUNCACEÆ.—RUSH FAMILY.

Juncus marginatus Rostk. Grass-leaved Rush. Frequent in Payne County,

Juncus Torreyi Coville. Torrey's Rush. Payne County, S. E. Myers, collector.

LILIACEÆ.—LILY FAMILY.

Allium Nuttallii Wats. Wild Onion. Kingfisher County, J. W. Blankinship.

Allium reticulatum Don. Frazier's Wild Onion. Payne County, Miss Jessie Thatcher, collector.

Allium stellatum Ker. Prairie Wild Onion. Near Langston, Logan County, C. E. Regnier, collector.

Androstephium cœruleum (Scheele) Green. Androstephium. Common on hills in early spring; in fruit May 1st. At time of flowering (first or second week in April) both the old and new

corms are about the same size and much flattened. Not properly represented in Britton and Brown.

Erythronium mesachoreum Knerr. Midland Adder's-tongue. Lincoln County, J. W. Blankinship.

Nothoscordum bivalve (L.) Britt. Yellow False Garlic. Common in early spring. Begins to bloom in March.

Yucca glauca Nutt. Bear-grass. Soap-weed. Common in sandy soil and on hills. Roots penetrate to a depth of six feet or more. The fertilizing insect *Pronuba yuccasella* always found in abundance in the flowers.

SMILACEÆ.—SMILAX FAMILY.

Smilax Bona-nox L. Bristly Green-brier. Common along streams where it sometimes assumes a weedy character.

Smilax glauca Walt. Glauous-leaved Greenbrier. Usually in thickets near streams.

Smilax hispida Muhl. Hispid Greenbrier. Common along streams and in moist places.

Smilax Pseudo-China L. Long-stalked Greenbrier. Payne County, J. W. Blankinship.

Smilax rotundifolia L. Greenbrier. Catbrier. The most common species in thickets along streams.

AMARYLLIDACEÆ—AMARILLIS FAMILY.

Cooperia Drummondii Herb. Drummond's Cooperia. Commonly called "Rain Lily" by people of the territory. Is found sparingly in the eastern part of the territory, and is most often seen after a heavy rain. Specimens in the collection are without leaves.

IRIDACEÆ—IRIS FAMILY.

Nemastylis acuta (Bart.) Herb. Northern Nemastylis. Payne County; frequent in spring.

Sisyrinchium graminoides Bicknell. Stout Blue-eyed Grass. Common. White flowered forms are frequent. Other species and varieties doubtless occur here. Worthy of cultivation as a border plant.

ORCHIDACEÆ—ORCHID FAMILY.

Gyrostachys gracilis (Bigel.) Kuntze. Slender Ladies' Tresses. The only orchid of the territory. Occurs occasionally.

DICOTYLEDONES.—PLANTS WITH TWO SEED LEAVES.

JUGLANDACEÆ.—WALNUT FAMILY.

Hicoria glabra (Mill.) Britton. Pig-nut Hickory. At natural pond near Perkins, Payne County.

Hicoria minima (Marsh.) Britt. Bitternut. Stillwater, A. B. McReynolds, collector. Identified as this species by good authority, but absence of fruit leaves the possibility of the specimen being a stunted *H. Pecan*.

Hicoria Pecan (Marsh.) Britt. Pecan. Common along streams and often yields valuable crops of fruit. Promptly takes advantage of protection from prairie fire, stock and imposition of other plants. On the farm of Mr. Thomas Griffin, near Moral, in the southwestern part of Pottawatomic County, is one or more trees that bear fruit one and five-eighths inches long, seven-eighths inch wide and five-eighths inch thick with very thin shells. The writer has seen only fruit and twigs of the tree. The fruit indicates that the specimens are a distinct natural cross between *Hicoria Pecan* and *Hicoria sulcata*. Further knowledge of the specimens is desirable.

Juglans nigra L. Black Walnut. Common along streams, but neither the trees nor fruit are as large as at the north.

SALICACEÆ.--WILLOW FAMILY.

Populus deltoides Marsh. Cottonwood. One of the most common trees along the streams.

Salix amygdaloides Anders. Peach-leaved Willow. Kingfisher County, J. W. Blankinship.

Salix fluviatilis exigua (Nutt.) Sarg. At Pawhuska, J. W. Blankinship.

Salix nigra Marsh. Black Willow. Frequent along streams.

FAGACEÆ--BEECH FAMILY.

Quercus macrocarpa Michx. Bur-oak or Mossy-cup. Common along streams.

Quercus minor (Marsh.) Sarg. Post or Iron Oak. Frequent along streams. Easily confused with White Oak. Small and shrub-like.

Quercus nigra L. Black Jack Oak. One of the most common trees of the territory; grows on dry, sandy hills.

Quercus prinoides Willd. Scrub Chestnut Oak. "Chinquapin." Forms the chief undergrowth of upland tree growth.

Quercus rubra L. Red Oak. One specimen from natural pond near Perkins, Payne County. Doubtless several other southwestern species occur in the territory.

ULMACEÆ. ELM FAMILY.

Celtis Mississipiensis Bosc. Southern Hackberry. Frequent along streams, not usually distinguished from common hack-

berry. This southern form as it occurs here has leaves about one and one-fourth inches long, thick, ovate, usually entire, especially on old trees. The fruit is dull red at maturity. Mr. Blankinship thinks it is not *C. Mississippiensis*, but *C. Berlandieri*.

Celtis occidentalis L. Hackberry. Common along streams.

Ulmus Americana L. American Elm. Common along streams and in low ground.

Ulmus pubescens Walt. Slippery Elm. Frequent along streams.

MORACEÆ--MULBERRY FAMILY.

Morus rubra L. Red Mulberry. Frequent along streams.

URTICACEÆ- NETTLE FAMILY.

Parietaria Pennsylvanica Muhl. Pennsylvania Pellitory. Common in moist, shaded situations.

Urticastrum divaricatum (L.) Kuntze. Wood Nettle. Frequent in tuickets.

LORANTHACEÆ--MISTLETOE FAMILY.

Phoradendron flavescens (Pursh.) Nutt. Mistletoe. Common in the southern part of the territory, but gradually grows less toward the north, scarcely reaching the northern boundary. Usually on American Elm, but said to grow on Cottonwood and Oak. In Texas it grows on apple trees. It is the adopted state plant of Oklahoma. Gathered in large quantities for winter holiday decoration and for that reason is becoming less abundant in some localities.

POLYGONACEÆ--BUCKWHEAT FAMILY.

Eriogonum annuum Nutt. Annual Eriogonum. Frequent on dry prairies.

Eriogonum longifolium Nutt. Long-leaved Eriogonum. Common on dry prairies.

Polygonum aviculare L. Knot-grass. Kingfisher County, J. W. Blankinship.

Polygonum camporum Meisn. Prairie Knotweed. Kingfisher County, J. W. Blankinship.

Polygonum convolvulus L. Black Bindweed. A common weed in cultivated soil.

Polygonum cristatum Engelm. & Gray. Crested False Buckwheat. Payne County, S. E. Myers, collector.

Polygonum emersum (Michx.) Britt. Swamp Persicaria. In natural pond near Perkins, Payne County.

Polygonum erectum Erect Knotweed. Frequent in Payne County.

Polygonum hydropiperoides Michx. Mild Water Pepper. Natural pond near Perkins, Payne County.

Polygonum lapathifolium L. Pale Persicaria. Frequent in Payne County.

Polygonum longistylum Small. Long-styled Persicaria. Lincoln County, "along streams not infrequent," J. W. Blankinship.

Polygonum Mexicanum Small. Mexican Persicaria. Frequent. "This and the preceding species need to be studied in the field," J. W. Blankinship.

Polygonum Pennsylvanicum L. Pennsylvania Persicaria. Lincoln and Oklahoma Counties. J. W. Blankinship.

Polygonum punctatum Ell. Water Smart-weed. In wet places, Payne County.

Polygonum scandens L. Climbing False Buckwheat. Common growing over shrubbery.

Polygonum tenue Michx. Slender Knot-weed. Abundant about Stillwater in rich soil.

Polygonum Virginianum L. Virginia Knot-weed. Frequent in wet, shaded places.

Rumex acetocella L. Sheep Sorrel. Lincoln County, J. W. Blankinship.

Rumex altissimus Wood. Peach-leaved Dock. Frequent in wet soil.

Rumex crispus L. Curled Dock. Frequent in cultivated fields.

Rumex verticillatus L. Swamp Dock. One specimen from a wet place in Garfield County.

CHENOPODIACEÆ.—GOOSEFOOT FAMILY.

Boussingaultia basseloides H. B. K. A climbing, weak vine. Determined by J. W. Blankinship. This is the first record of its appearance north of Mexico. Collected only once by F. M. Greiner at Stillwater. Have not been able to find plants since the first collection.

Chenopodium album L. Lamb's Quarter. Abundant as a weed in rich soil.

Chenopodium Boscianum Moq. Bosc's Goosefoot. Kingfisher and Lincoln Counties, J. W. Blankinship.

Chenopodium hybridum L. Maple-leaved Goosefoot. Cleveland County, A. B. McReynolds, collector.

Chenopodium leptophyllum (Moq.) Nutt. Narrow-leaved Goosefoot. Payne County.

Cycloloma atriplicifolium (Spreng.) Coult. Tumble-weed. A common weed. The whole plant often carried long distances by the wind.

Monolepis Nuttalliana (R. & S.) Green. Monolepis. Growing in sand on bank of Cimarron river, Payne County.

AMARANTHACEÆ.—AMARANTH FAMILY.

Acnida tamariscina (Nutt.) Wood. Western Water Hemp. One male specimen from Pawnee County, J. W. Blankinship.

Amaranthus blitoides S. Watson. Prostrate Amaranth. A low, spreading weed in dry soil.

Amaranthus græcizans L. Tumble-weed. "Not infrequent," J. W. Blankinship.

Amaranthus hybridus L. Slender Pigweed. Common weed.

Amaranthus hybridus paniculatus (L.) Uline & Bray. Red-topped Pigweed. Common weed. This with *A. hybridus* often called Hogweed

Amaranthus spinosus L. Spiny Amaranth. Common though not yet troublesome weed.

Frælichia Floridana (Nutt.) Moq. Florida Frælichia. Common on dry prairies.

Frælichia gracilis Moq. Slender Frælichia. Frequent on dry, stony hillsides.

Iresine paniculata (L.) Kuntze. Bood-leaf. Juba's Bush. Frequent in Payne and Lincoln Counties.

PHYTOLACCACEÆ.—POKEWEED FAMILY.

Phytolacca decandra L. Poke or Scape. Common in rich soil.

NYCTAGINACEÆ.—FOUR-O'CLOCK FAMILY.

Allionia albida Walt. Umbrellawort. Pawnee and Lincoln Counties, J. W. Blankinship.

Allionia hirsuta Pursh. Hairy Umbrellawort. Common on prairies.

Allionia linearis Pursh. Narrow-leaved Umbrellawort. Frequent on dry prairies.

Allionia nyctaginea Michx. Heart-leaved Umbrellawort. Frequent near streams.

AIZOACEÆ.—CARPETWEED FAMILY.

Mollugo verticillata L. Carpet-weed. Common weed in cultivated soil.

PORTULACACEÆ.—PURSLANE FAMILY.

Claytonia Virginica L. Spring Beauty. Common in early spring.

Portulaca pilosa L. Hairy Portulaca. Frequent on sandstone barrens and sometimes in cultivated soil.

Talinum calycinum Engelm. Large-flowered Talinum. "Frequent on sandstone barrens," J. W. Blankinship.

Talinum parviflorum Nutt. Small-flowered Talinum. Often growing with the Large-flowered Talinum.

Talinum teretifolium Pursh. Fame-flower. Collected on level, rich prairie west of Hennessey, Kingfisher County.

CARYOPHYLLACEÆ.—PINK FAMILY.

Agrostemma Githago L. Corn Cockle. In wheat fields, Payne County.

Arenaria patula Michx. Pitcher's Sandwort. In dry soil, Payne County.

Cerastium brachypodum (Engelm.) Robinson. Short-stalked Chickweed. Kingfisher County, J. W. Blankinship.

Cerastium longipedunculatum Muhl. Nodding Chickweed. Common in Payne County.

Paronychia Jamesii T. & G. James' Whitlow-wort. Common on eroded banks.

Silene antirrhina L. Sleepy Catchfly. Common in moist soil.

Silene stellata (L.) Ait. Starry Champion. Pawhuska, C. E. Regnier, collector.

NYMPHÆACEÆ.—WATER LILY FAMILY.

Castalia odorata (Dryand.) Woodv. & Wood. Near Pawhuska, Osage Nation J. W. Blankinship, C. E. Regnier.

Nelumbo lutea (Willd.) Pers. American Nelumbo. In natural pond near, Perkins, Payne County.

CERATOPHYLLACEÆ.—HORNWORT FAMILY.

Ceratophyllum demersum L. Osage Nation, J. W. Blankinship.

RANUNCULACEÆ.—CROWFOOT FAMILY.

Anemone Caroliniana Walt. Carolina Anemone. A common early spring plant.

Aquilegia Canadensis L. Columbine. Near Pawhuska, C. E. Regnier.

Clematis Simsii Sweet. Sims' Clematis. Common in moist thickets.

Delphinium Carolinianum Walt. Carolina Larkspur. Frequent in dry situations in Payne County.

Myosurus minimus L. Mouse-tail. Frequent in moist soil.

Oxygraphis Cymbalaria (Pursh.) Prantl. Seaside Crowfoot. One specimen from Cleveland County.

Thalictrum polygamum Muhl. Tall Meadow Rue. One female specimen from near Chandler, Lincoln County.

MENISPERMACEÆ.—MOONSEED FAMILY.

Cebatha Carolina (L.) Britt. Carolina Moonseed. Common in thickets.

Menispermum Canadensis L. Canada Moonseed. Frequent along streams.

PAPAVERACEÆ.—POPPY FAMILY.

Argemone alba Lestib. Kingfisher County, J. W. Blankinship.

Argemone platyceras Link & Otto. Frequent in sand dunes along Cimarron river.

Capnoides curvisiliquum (Engelm.) Kuntze. Curved-fruited Corydalis. Kingfisher County, J. W. Blankinship.

Capnoides micranthum (Engelm.) Britt. Small-flowered Corydalis.

CRUCIFERÆ.—MUSTARD FAMILY.

Arabis Canadensis L. Sickle-pod. Lincoln County, J. W. Blankinship.

Arabis Virginica (L.) Trelease. Virginia Rock-cress. Frequent in moist, open places.

Barbarea Barbarea (L.) MacM. Yellow Rocket. Frequent in cultivated soil.

Brassica arvensis (L.) B. S. P. Charlock. Frequent in Payne County.

Brassica juncea (L.) Cosson. Indian Mustard. Frequent in Payne County.

Brassica nigra (L.) Koch. Black Mustard. At Stillwater, Payne County.

Draba brachycarpa Nutt. Short-fruited Whitlow-grass. Lincoln County.

Draba Caroliniana Walt. Carolina Whitlow-grass. Common in early spring.

Leavenworthia uniflora (Michx.) Britt. Michaux's Leavenworthia. In dry soil, Payne County.

Lepidium apetalum Willd. Apetalous Pepper-grass. Kingfisher County, J. W. Blankinship.

Lepidium bipinnatifidum Desv. Cut-leaved Pepper-grass. Kingfisher & Lincoln Counties, J. W. Blankinship.

Lepidium Virginicum (L.) Willd. Peppergrass. Frequent in Payne County.

Lesquerella auriculata (Engelm. & Gray.) Watts. Hairy Bladder-pod. Frequent at Stillwater and occurs in Huntville, Kingfisher County.

Lesquerella gracilis (Hook.) S. Wats. Slender Bladder-pod. Common at Stillwater.

Roripa sessiliflora (Nutt.) A. S. Hitchcock. Sessile-flowered Cress. Frequent in Payne County.

Roripa sinuata (Nutt.) A. S. Hitchcock. Frequent in Payne County.

Sisymbrium canescens Nutt. Hairy Hedge Mustard. Kingfisher County, J. W. Blankinship.

Sisymbrium humile Meyer. Northern Rock Cress. At Stillwater, Payne County.

Sophia incisa (Engelm.) Greene. Western Tansy-mustard. Along Stillwater creek, Payne County.

Sophia Sophia (L.) Britt. Herb-Sophia. Payne County.

CAPPARIDACEÆ.—CAPER FAMILY.

Cleome sarrulata Pursh. Pink Cleome. One specimen from Alva. Woods County, Miss Edna B. Smith, collector.

Cleomella angustifolia Torr. Northern Cleomella. Frequent in wet or muddy places.

Cristatella erosa Nutt. Rough-margined Cristatella. One specimen from Tecumseh, Pottawatomie County.

Polanisia graveolens Raf. Clammy-weed. One specimen from Kingfisher County.

Polanisia trachysperma T. & G. Large-flowered Clammy-weed. Frequent in cultivated soil.

CRASSULACEÆ.—ORPINE FAMILY.

Sedum Torreyi Don. Torrey's Stone Crop. On sandstone barrens, Pottawatomie County.

PLATANACEÆ.—PLANE-TREE FAMILY.

Platanus occidentalis L. Sycamore. Along the Cimarron river near Cushing, Payne County. L. C. Miller.

ROSACEÆ.—ROSE FAMILY.

Agrimonia parviflora Soland. Many-flowered Agrimony. Frequent in Payne County.

Agrimonia striata Michx. Woodland Agrimony. Often growing with Many-flowered Agrimony, especially in shade of trees and shrubs.

Geum Canadense Jacq. White Avens. Frequent in Payne County in the shade.

Potentilla arguta Pursh. Tall Cinquefoil. Becoming common as a weed.

Potentilla Monspeliensis L. Rough Cinquefoil. Becoming common as a weed.

Rosa Arkansana Porter. Arkansas Rose. In moist soil, in Payne County.

Rosa humulis Marsh. Pasture Rose. Frequent in moist and dry soil.

Rubus Canadensis L. Low Running Blackberry. Frequent along streams.

POMACEÆ.—APPLE FAMILY.

Crataegus (Species.) This genus is represented here but no specimens are in the collection.

DRUPACEÆ.—PLUM FAMILY.

Prunus Americana Marsh. Wild Plum. Several forms of this species occur here. One has leaves two to three inches long and half as broad, glabrous above, brown-pubescent beneath; fruit five-eighths inch in diameter, yellowish with a bloom, ripe in September and October; stone slightly obovate, thickened and very slightly grooved dorsally, ventral-edge slightly acute.

Prunus gracilis Engelm. & Gray. Low Plum. Frequent in dry, sandy soil. Other species doubtless occur here.

MIMOSACEÆ.—MIMOSA OR SENSITIVE ROSE.

Acacia filiculoides (Cav.) Trelease. Prairie Acacia. Devil's Shoestring. A common weed in cultivated and waste ground.

Acacia Illinoensis (Michx.) Kuntze. Illinois Mimosa or Sensitive Rose. Common in moist prairie soil.

Acacia leptoloba (T. & G.) Kuntze. Prairie Mimosa or Sensitive Rose.

Morongia uncinata (Willd.) Britt. Sensitive-brier. Common in moist prairie soil.

Neptunia lutea Benth. Yellow Creeping Sensitive Rose. Common on eroded banks.

CÆSALPINACEÆ.—SENA FAMILY.

Cassia Chamæcrista L. Large-flowered Sensitive Pea. Common on prairies.

Cassia Marylandica L. Wild or American Senna. Occasional in low ground.

Cassia nictitans L. Sensitive Pea. In dry, sandy soil at natural pond near Perkins, Payne County.

Cercis Canadensis L. Red-bud. Common along streams.

Gleditsia triacanthos L. Honey Locust. Common along streams. Often transplanted for street trees.

Gymnocladus dioica (L.) Koch. Kentucky Coffee-tree. Frequent along streams in the southern part of the Territory.

KRAMERIACEÆ.—KRAMERIA FAMILY.

Krameria secundiflora DC. Linear-leaved Krameria. Common on dry prairies.

PAPILIONACEÆ.—PEA FAMILY.

Amorpha canescens Pursh. Lead Plant. Common on prairies.

Amorpha fruticosa L. False Indigo. Common in moist situations.

Apios Apios (L.) MacM. Ground-nut. Fouts, Lincoln County, J. W. Blankinship.

Astragalus Carolinianus L. Carolina Milk Vetch. Woods County, Edna B. Smith.

Astragalus Missouriensis Nutt. Missouri Milk Vetch. Kingfisher and Lincoln Counties, J. W. Blankinship. Mr. Blankinship says the plants show a new variety or small form.

Astragalus mollissimus Torr. Woolly Loco-weed or Crazy-weed. A common and apparently dangerous weed on the western prairies.

Astragalus Nuttallianus DC. Nuttall's Milch Vetch. Kingfisher County, J. W. Blankinship.

Astragalus Reverchoni A. Gray. Reverchon's Milk Vetch. On prairies in Payne County.

Baptisia australis (L.) R. Br. Blue False Indigo. Common on prairies. A very tall form occurs in Pottawatomie County.

Baptisia bracteata Ell. Large-bracted Wild Indigo. Common on prairies.

Canavalia ensiformis DC. White Sword Bean. By people of the Territory called "Oklahoma Prolific." Volunteer in sandy soil along the Cimarron. Pods eight to fifteen inches long and an inch wide containing numerous large, white seeds. Probably introduced from sub-tropical countries. Mr. L. H. Dewey says: "The roasted seeds are ground and mixed with about one-third of their bulk of good coffee and used as substitute for Coffee at Marathon, Texas, where the plant is called "Kauphy bean." Unless planted early the seeds fail to ripen properly before frost. One man reports having raised ninety-five beans from a single seed in one season.

Clitoria Mariana L. Butterfly Pea. In sandy soil in southern Oklahoma. Has large, fine flowers and seems worthy of cultivation

Cracca Virginiana L. Goats Rue. Frequent in dry prairies.

Crotalaria sagittalis L. Rattle-box. In sandy soil along Cimarron river.

Galactia regularis (L.) B. S. P. Milk Pea. "Near *G. volubilis* (L.) Britt," J. W. Blankinship, Lincoln County.

Galactia volubilis (L.) Britt. Downy Milk Pea. In sandy soil at natural pond near Perkins, Payne County.

Glycyrrhiza lepidota Pursh. Wild Liquorice. A common weed in low ground.

Indigofera leptosepala Nutt. Western Indigo Plant. Frequent in sandy soil.

Kuhnistera candida (Willd.) Kuntze. White Prairie Clover. Common in broken prairie soil.

Kuhnistera multiflorus (Nutt.) Heller. Round-headed Prairie Clover. Frequent in broken prairie soil.

Kuhnistera purpurea (Vent.) MacM. Violet Prairie Clover. Frequent in sandy soil along river courses.

Lathyrus. The genus is represented in the Territory, but specimens are not in the collection.

Lespedeza capitata Michx. Round-headed Bush-clover. A tall conspicuous weed on prairies.

Lespedeza frutescens (L.) Britt. Wand-like Bush-clover. Common on prairies.

Lespedeza procumbens Michx. Trailing Bush-clover. In sandy soil, Payne County.

Lespedeza repens (L.) Pers. Creeping Bush-clover. Occasional in sandy soil.

Lespedeza Stuvei Nutt. Stuve's Bush-clover. Common on prairies.

Lespedeza Stuvei frutescens Reported from Fouts, Lincoln County, by J. W. Blankinship.

Lespedeza violacea (L.) Pers. Bush-clover. Frequent on prairies.

Lotus Americanus (Nutt.) Bisch. Prairie Bird's-foot Trefoil. Common on prairies.

Meibomia Canadensis (L.) Kuntze. Showy Tick-trefoil. Occasional on prairies.

Meibomia Dillenii (Darl.) Kuntze. Dillen's Tick-trefoil. One specimen from near Cimarron river, Payne County.

Meibomia grandiflora (Walt.) Kuntze. Pointed-leaved Tick-trefoil. Frequent in thickets.

Meibomia Illinoensis (Gray.) Kuntze. Illinois Tick-trefoil. Frequent on prairies.

Meibomia obtusa (Muhl.) A. M. Vail. "In dry upland woods," Lincoln County, J. W. Blankinship.

Meibomia sessilifolia (Torr.) Kuntze. Sessile-leaved Tick-trefoil. Common on prairies.

Melilotus alba Lam. Sweet Clover. Sparingly escaped cultivation.

Parosela aurea (Nutt.) Britt. Golden Parosela. Frequent in broken prairie soil.

Parosela enneandra (Nutt.) Britt. Slender Parosela. A conspicuous weed in broken soil.

Parosela lanata (Spreng.) Britt. Woolly Parosela. In sandy soil along Cimarron river.

Psoralea argophylla Pursh. Silver-leaf Psoralea. Frequent on dry prairies.

Psoralea cuspidata Pursh. Large-bracted Psoralea. In clay soil, Pottawatomie County.

Psoralea digitata Nutt. Digitate Psoralea. Hennessey, Kingfisher County.

Psoralea esculenta Pursh. Pomme Blanche, Prairie Turnip. Grows inconspicuously among grasses on prairies.

Psoralea floribunda Nutt. Many-flowered Psoralea. The most common species. The roots are very fibrous and tough and penetrate hard soil to a remarkable extent.

Psoralea tenuiflora Pursh. Few-flowered Psoralea. Kingfisher and Payne Counties, J. W. Blankinship.

Sesban vesicaria Ell. Lincoln County, J. W. Blankinship.

Sophora sericea Nutt. Silky Sophora. Frequent in western Oklahoma.

Spiesia Lamberti (Pursh.) Kuntze. Stemless Loco-weed. On clay hills.

Strophostyles helveola (L.) Britt. Trailing Wild Bean. Frequent in sandy soil. Often assumes weedy character in corn fields.

Strophostyles pauciflora (Benth.) Wats. Small Wild Bean. Frequent in sandy soil.

Strophostyles umbellatus (Muhl.) Britt. Frequent in cultivated and waste soil.

Stylosanthes biflora (L.) B. S. P. Pencil-flower. On dry prairies.

Stylosanthes biflora hispidissima Nutt. Hispid Pencil-flower. As frequent, and in same situations as the species, both often found in sandy soil.

Trifolium hybridum L. Alsike Clover. May be expected out of cultivation.

Trifolium pratense L. Red-clover. Sparingly escaped cultivation.

Trifolium repens L. White-clover. Escaped cultivation in a few places.

Vicia Leavenworthii T. & G. Leavenworth's Vetch. Kingfisher County, J. W. Blankinship.

GERANIACEÆ.—GERANIUM FAMILY.

Geranium Carolinianum L. Carolina Crane's-bill. Common on prairies.

OXALIDACEÆ.—WOOD-SORREL FAMILY.

Oxalis corniculata L. Common Wood Sorrell. Common in prairie soil that has been broken.

Oxalis corniculata Dillenii Trel. Dillen's Wood-sorrel. Kingfisher County, J. W. Blankinship.

Oxalis violacea L. Violet Wood-sorrel. Common in cultivated soil. Worthy of cultivation as a bedding plant like Crocus.

LINACEÆ.—FLAX FAMILY.

Linum rigidum Pursh. Large-flowered Yellow Flax. Frequent on prairies.

Linum sulcatum Riddell. Grooved Yellow Flax. Common on prairies.

RUTACEÆ.—RUE FAMILY.

Ptelea trifoliata L. Three-leaved Hop-tree. Kingfisher County, J. W. Blankinship.

Xanthoxylum Americanum Mill. Prickly Ash. In sandy woods at natural pond near Perkins, Payne County.

POLYGALACEÆ.—MILKWORT FAMILY.

Polygala incarnata L. Pink Milkwort. Inconspicuous though common on prairies.

Polygala verticillata L. Whorled Milkwort. Frequent on prairies.

EUPHORBIACEÆ.—SPURGE FAMILY.

Acalypha gracilens A. Gray. Slender Three-seeded Mercury. Frequent in dry soil.

Croton capitatus Michx. Goat-weed. Bad weed in many places. This species is figured as *Croton Texensis* in bulletin 41 of this station. This correction should be noted.

Croton glandulosus L. Glandular Croton. Frequent in broken prairies.

Croton Lindheimerianus Schreb. Lindheimer's Croton. Kingfisher County, J. W. Blankinship.

Croton Texensis (Klotzsch.) Muel. Kingfisher County, J. W. Blankinship.

Euphorbia corollata L. Flowering Spurge. Common weed in many places.

Euphorbia corollata angustifolia Ell. Narrow-leaved Spurge. Payne and Lincoln Counties, J. W. Blankinship.

Euphorbia dentata Michx. Toothed Spurge. Common in many places.

Euphorbia dictyosperma F. & M. Reticulate-seeded Spurge. Frequent on prairies.

Euphorbia Geyeri Engelm. & Gray. Geyer's Spurge. Payne County.

Euphorbia glyptosperma Engelm. Ridged-seeded Spurge. Kingfisher County J. W. Blankinship

Euphorbia heterophylla L. Various-leaved Spurge. Frequent on prairies.

Euphorbia hexagona Nutt. Angled Spurge. Along Cimarron river.

Euphorbia maculata L. Milk Purslane. Common weed in cultivated soil.

Euphorbia marginata Pursh. Snow-on-the-Mountain. Common; weedy in some places.

Euphorbia nutans Lag. Large-spotted Spurge. Common along streams in broken soil.

Euphorbia Nuttallii (Englem.) Small. Prairie Spurge. "Bottoms along Cimarron river near Perkins," Payne County, J. W. Blankinship.

Euphorbia petaloides ? Engelm. White-flowered Spurge. Hennessey, Kingfisher County, F. M. Greiner, collector. (Species doubtful.)

Euphorbia platyphylla L. Broad-leaved Spurge. One specimen from Norman, Cleveland County, A. B. McReynolds, collector.

Jatropha stimulosa Michx. Tread-softly. In sandy soil among trees. Roots large, furrowed, penetrating to great depth.

Ricinus communis L. Castor-oil Plant. Extensively cultivated and often volunteer in waste places.

Stillingia sylvatica L. Queen's Delight. Frequent in dry prairies near streams.

Tragia ramosa Branching Tragia. Frequent in dry soil.

ANACARDIACEÆ.—RHUS FAMILY.

Rhus copallina L. Upland Sumac. Common on dry prairies.

Rhus glabra L. Scarlet Sumac. Common on dry prairies.

Rhus radicans L. Poison or Three-leaved Ivy. Common in thickets and among trees.

Rhus triloba Nutt. Skunk Bush, Frequent in sandy soil.

CELASTRACEÆ.—STAFF-TREE FAMILY.

Celastrus scandens L. Climbing Bitter-sweet. Common in thickets.

Euonymus atropurpureus Jack. Burning Bush. Frequent along the banks of streams.

ACERACEÆ.—MAPLE FAMILY.

Acer Negundo L. Box Elder. Common along streams.

SAPINDACEÆ.—SOAPBERRY FAMILY.

Sapindus marginatus Willd. Wild China Tree. Frequent along streams.

RHAMNACEÆ.—BUCKTHORN FAMILY.

Ceanothus Americanus L. Red Root. Common on prairies.

VITACEÆ.—GRAPE FAMILY.

Ampelopsis arborea (L.) Rusby. Pepper-vine. Frequent along streams in the southern part of the Territory.

Ampelopsis cordata Michx. Simple-leaved Ampelopsis. Common along streams.

Parthenocissus quinquefolia (L.) Planch. Virginia Creeper. Common in thickets.

Vitis cinerea Engelm. Downy Grape. Common along streams.

Vitis cordifolia Michx. Frost Grape. Common in thickets.

Vitis rotundifolia Michx. Southern Fox-grape. Two plants found along Stillwater creek near the town.

Vitis vulpina L. Sweet-scented Grape. Lincoln County, J. W. Blankinship.

MALVACEÆ.—MALLOW FAMILY.

Callirhæ digitata Nutt. Fringed Poppy Mallow. Indian Bread. Frequent on prairies. Root thick, mucilaginous. Has been used as food by the Indians, hence the common name.

Callirhæ involucrata (T. & G.) A. Gray. Purple Poppy Mallow. Common in low land along streams. Worthy of and takes kindly to cultivation.

Hibiscus Trionum L. Bladder Ketmia. Sparingly introduced. One specimen from Lincoln County, W. H. Crume, collector.

Malvastrum coccineum (Pursh.) A. Gray. Woods County, Miss Enda B. Smith; Kingfisher County, J. W. Blankinship.

Sida spinosa L. Prickly Sida. A common weed at Stillwater.

HYPERICACEÆ.—ST. JOHN'S-WORT FAMILY.

Ascyrum hypericoides L. St. Andrew's Cross. Lincoln County.

Hypericum Drummondii (Grev. & Hook.) T. & G. Frequent on dry prairies in Payne County.

Hypericum gymnanthum Engelm. & Gray. Frequent in Payne County.

Hypericum maculatum Walt. Spotted St. John's-wort. Partridge, Lincoln County, W. H. Crume, collector.

CISTACEÆ.—ROCK-ROSE FAMILY.

Lechea tenuifolia Michx. Narrow-leaved Pin-weed. Frequent in dry soil.

Lechea villosa Ell. Hairy Pin-weed. In dry soil, Kingfisher and Lincoln Counties.

VIOLACEÆ.—VIOLET FAMILY.

Viola obliqua Hill. Meadow Violet. Common in shaded places.

Viola sagittata Ait. Arrow-leaved Violet. Lincoln County, J. W. Blankinship.

Viola tenella Muhl. Field Pansy. Abundant in early spring on moist prairies.

PASSIFLORACEÆ.—PASSION FLOWER FAMILY.

Passiflora incarnata L. Passion Flower. A bad weed in corn fields.

LOASACEÆ.—LOASA FAMILY.

Mentzelia nuda (Pursh.) T. & G. Bractless Mentzelia. Occasional in the western part of the Territory.

Mentzelia oligosperma Nutt. Few-seeded Mentzelia. Cimarron river, Payne County, S. E. Myers, collector.

CACTACEÆ.—CACTUS FAMILY.

Opuntia humifusa Raf. Western Prickly Pear. Common on dry prairies, forming a bad weed in some places. Doubtless other members of the family grow in the western part of the Territory.

LYTHRACEÆ.—LOOSESTRIFE FAMILY.

Ammannia coccinea Rottb. Long-leaved Ammannia. Frequent in wet or muddy places.

Lythrum alatum Pursh. Wing-angled Loosestrife. Frequent in moist places on prairie.

Lythrum lanceolatum Ell. Lance-leaved Loosestrife. Kingfisher County, J. W. Blankinship.

ONAGRACEÆ.—EVENING PRIMROSE FAMILY.

Gaura coccinea Pursh. Scarlet Gaura. Frequent on dry prairies.

Gaura sinuata Nutt. Wavy-leaved Gaura. Kingfisher and Payne Counties.

Gaura villosa Torr. Woolly Gaura. In sandy soil. Kingfisher County.

Hartmannia speciosa (Nutt.) Small. Showy Primrose. Frequent in moist places. Responds readily to cultivation.

Ludwigia alternifolia L. Rattle-box. Occasional in wet places.

Megapterium Missouriensis (Sims.) Spach. Missouri Primrose. On hills where sandstone crops out. Flowers large and attractive.

Meriolix serrulata (Nutt.) Walp. Tooth-leaved Primrose. Common on dry prairies.

Meriolix serrulata spinulosa (T. & G.) Small. Spiny-toothed Primrose. Lincoln County, J. W. Blankinship.

Enothera laciniata Hill. Sinuate-leaved Evening Primrose. Frequent on prairies and in cultivated soil.

Enothera rhombipetala Nutt. Rhombic Evening-Primrose. In sandy soil along the larger streams.

Onagra biennis (L.) Scop. Common Evening Primrose. Frequent on prairies.

Stenosiphon linifolium (Nutt.) Britt. A conspicuous plant frequent on prairies.

UMBELLIFERÆ.—CARROT FAMILY.

Apiastrum patens (Nutt.) Coult. & Rose. Common on prairies in dry and moist soil.

Cherophyllum Teinturieri Hook. Stillwater, S. E. Myers, collector.

Cicuta maculata L. Water Hemlock. Common in wet places.

Cynosciadium pinnatum DC. Pinnate Cynosciadium. One specimen from Payne County.

Daucus pusillus Michx. Native Wild Carrot. Frequent in southern part of the territory.

Eryngium Leavenworthii T. & G. Leavenworth's Eryngo. On limestone barrens at Pauhaska and Alva, Woods County.

Eurytænia Texana T. & G. Texas Eurytænia. Canadian river, Cleveland County.

Peucedanum fœniculaceum Nutt. Fennel-leaved Parsley. Frequent on barren clay hills.

Polytænia Nuttallii DC. Nuttall's Polytænia. A conspicuous plant on dry prairies in the southeastern part of the territory.

Ptilinmium Nuttallii (DC.) Britt. Nuttall's Mock Bishop-weed. Lincoln County, J. W. Blankinship.

Sanicula Canadensis L. Short-styled Snake-root. Frequent in thickets in Payne County.

CORNACEÆ—DOGWOOD FAMILY.

Corymus asperifolia Michx. Rough-leaved Dogwood. Common in thickets.

Cornus canadissima Marsh. Panicked Dogwood. Common in low grounds and thickets.

PRIMULACEÆ—PRIMROSE FAMILY.

Androsace occidentalis Pursh. Androsace. Common on prairies in early spring but inconspicuous.

Samolus ebracteatus H. B. K. Saline River-weed. On wet bottom near the water of the Cimarron river west of Hennessey, Kingfisher County.

Samolus floribundus H. B. K. Water Pimpernel. Cimarron river, Payne County, S. E. Myers, collector; Baker, Lincoln county, Phronia Eckes, collector.

Steironema ciliatum (L.) Raf. Fringed Loosestrife. Pawhuska, C. E. Regnier, collector.

Steironema lanceolatum (Walt.) Gray. Lincoln County, W. H. Crume, collector.

SAPOTACEÆ.—SAPODILLA FAMILY.

Bumelia lanuginosa (Michx.) Pers. Woolly Buckthorn. Shittim or Chittim Wood. Frequent along streams.

Bumelia lanuginosa rigida A. Gray. Spiny Buckthorn. More shrubby in habit in similar situations. Leaves not "densely tomentose-pubescent beneath" but sparsely white tomentose; pedicels much shorter than the petioles, one to two times longer than the calyx, densely dirty white pubescent. Further observation on these is desirable.

EBENACEÆ.—EBONY FAMILY.

Diospyros Virginiana L. Persimmon. Common along streams in the southern and eastern parts of the territory.

OLEACEÆ.—OLIVE FAMILY.

Fraxinus Americana L. White Ash. Frequent along streams.

Fraxinus viridis Michx. Green Ash. Osage Nation, J. W. Blankinship.

LOGANIACEÆ.—LOGANIA FAMILY.

Polypremum procumbens L. Polypremum. Lincoln County, J. W. Blankinship.

GENTIANACEÆ.—GENTAIN FAMILY.

Eustoma Russellianum (Hook.) Griseb. Cimarron river west of Hennessey, Kingfisher County, A. N. Caudell, collector.

Sabbatia angustifolia (L.) Pursh. Rose-Pink. Frequent on prairies in summer.

Sabbatia compestris Nutt. Prairie Sabbatia. Less frequent than the Rose-Pink.

APOCYNACEÆ.—DOGBANE FAMILY.

Apocynum cannabinum Linn. Indian Hemp. Lincoln County, J. W. Blankinship.

Apocynum hypericifolium Ait. Claspig Dogbane. Common in cultivated and moist waste soil. Often occurs abundantly.

Apocynum pubescens R. Br. Velvet Dogbane. Occurs frequently in Payne County.

ASCLEPIDACEÆ.—MILKWEED FAMILY.

Acerates angustifolia (Nutt.) Dec. Narrow-leaved Milkweed. Frequent on dry prairies.

Acerates Floridana (Lam.) Hitchc. Florida Milkweed. Common on dry prairies.

Acerates viridifolia (Raf.) Eaton. Green Milkweed. Common on dry prairies.

Acerates viridifolia Ivesii Britt. Ives' Milkweed. In sandy soil, Kingfisher County.

Ampelanus albidus (Nutt.) Britt. Sand Vine. In thickets along streams in Payne County.

Asclepias arenaria Torr. Sand Milkweed. In sandy soil, Kingfisher County.

Asclepias latifolia Torr. Broad-leaved Milkweed. Rare in Payne County.

Asclepias speciosa Torr. Showy Milkweed. Frequent on dry prairies in Kingfisher and Blaine Counties.

Asclepias tuberosa L. Butterfly-weed. Chigger-weed. Very common among weeds and in thickets.

Asclepias verticillata Linn. Whorled Milkweed. Frequent on prairies.

Asclepias pumila (A. Gray.) Vail. Low Milkweed. Blaine County.

Asclepiodora decumbens (Nutt.) A. Gray. Decumbent Milkweed. Kingfisher County, J. W. Blankinship

Asclepiodora viridis (Walt.) Gray. Oblong-leaved Milkweed. Common on dry prairies.

Gonolobus cynanchoides Engelm. (Probably a synonym.) Pro-cumbent Gonolobus. In sandy soil near Hennessey, Kingfisher County.

CONVOLVULACEÆ.—MORNING-GLORY FAMILY.

Breweria Pickeringii (Curtis.) Gray. Pickering's Breweria. In sandy soil along Cimarron river.

Convolvulus arvensis L. Small Bindweed. Established in several places near Stillwater.

Convolvulus repens L. Trailing Bindweed. A common weed in many cultivated fields.

Convolvulus Sepium L. Great Bindweed. Common in cultivated fields.

Convolvulus spithameus L. Upright Bindweed. Frequent in broken prairie soil.

Evolvulus pilosus Nutt. Evolvulus. In dry prairie soil.

Ipomœa Carletoni Holzinger. Huntville, Kingfisher County, Laura A. Blankinship, collector, July 11, 1896.

Ipomœa hederacea Jacq. Ivy-leaved Morning Glory. Payne County.

Ipomœa lacunosa L. Small-flowered White Morning Glory. Payne County.

Ipomœa leptophylla Torr. Bush Morning Glory. Frequent in dry prairie soil underlaid with sandstone.

Ipomœa pandurata (L.) Meyer. Man-of-the-Earth. In sandy soil along the Cimarron river. Roots four or more feet long, three or more inches thick, rough furrowed.

Ipomœa purpurea (L.) Roth. Morning-glory. Sparingly escaped cultivation in a few places. Volunteer throughout the territory.

CUSCUTACEÆ.—DODDER FAMILY.

Cuscuta cuspidata Engelm. Cuspidate Dodder. On alfalfa in Payne County.

Cuscuta indecora Choisy. Pretty Dodder. Frequent on perennial rag-weed.

Cuscuta gronovii Willd. Love-vine. Frequent on perennial rag-weed.

POLEMONIACEÆ.—PHLOX FAMILY.

Gilia longiflora (Torr.) Don. White-flowered Gilia. Near Cimarron river, near Perkins, Payne County, J. W. Blankinship.

BORAGINACEÆ.—BORAGE FAMILY.

Heliotropium Curassavicum L. Sea-side Heliotrope. Cimarron river in moist sand.

Heliotropium tenellum (Nutt.) Torr. Slender Heliotrope. On dry prairies.

Lappula Virginiana (L.) Greene. Virginia Stick-seed. Payne County.

Lithospermum angustifolium Michx. Narrow-leaved Puccoon.
Frequent in dry prairie soil.

Lithospermum canescens (Michx.) Lehm. Hoary Puccoon,
Frequent in dry soil. Roots stain paper purple.

Lithospermum Gmelini (Michx.) Hitch. Kingfisher County.
F. M. Greiner, collector.

Myosotis Virginica (L.) B. S. P. Early Scorpion-grass. Com-
mon in spring.

Onosmodium Carolinianum (Lam.) DC. Shaggy False Grom-
well. In dry soil near Langston, Logan County, C. E.
Regnier, collector.

VERBENACEÆ.—VERVAIN FAMILY.

Lippia cuneifolia (Torr.) Steud. Wedge-leaved Fog-fruit.
Kingfisher and Lincoln Counties, J. W. Blankinship.

Lippia lanceolata Michx. Fog-fruit. Common in wet places.

Lippia nodiflora (L.) Michx. Spatulate-leaved Fog-fruit.
Fouts, Lincoln County, J. H. Simmons, collector.

Verbena bipinnatifida Nutt. Small-flowered Vervain. Payne
County.

Verbena bracteosa Michx. Large-bracted Vervain. Lincoln
and Pottawatomie Counties.

Verbena Canadensis (L.) Britt. Large-flowered Verbena.
Frequent in sandy soil.

Verbena ciliata Benth. Hairy Verbena. Kingfisher County,
J. W. Blankinship.

Verbena stricta Vent. Hoary Vervain. Frequent on
prairies.

Verbena urticifolia L. White Vervain. Frequent in waste
places.

Verbena xutha Lehm. Curved-seeded Vervain. One speci-
men from Stillwater, Payne County.

LABIATEÆ.—MINT FAMILY.

Glechoma hederacea L. Ground Ivy. Collected at Stillwater.

Hedeoma Drummondii Bent. Drummond's Pennyroyal. Fre-
quent on prairies.

Hedeoma hispida Pursh. Rough Pennyroyal. Frequent on
dry prairies.

Leonurus Cardiaca L. Motherwort. Occasional in moist
rich soil.

Lycopus Americana Muhl. Cut-leaved Water Hoar-hound.
In wet soil, Payne County.

Marrubium vulgare L. White Hoarhound. Occasional in dry soil.

Mentha spicata L. Spearmint. Rare in moist places.

Monarda clinopodioides A. Gray. False Balm. Occasional on dry prairies.

Monarda punctata L. Horse Mint. Kingfisher County, F. M. Greiner, collector.

Monarda scabra Beck. Pale Wild Bergamont. Common along small streams.

Pysostegia Virginiana (L.) Benth. False Dragon Head. Pawhuska, C. E. Regnier, collector.

Prunella vulgaris L. Heal-all. Sparingly introduced.

Salvia lanceolata Willd. Lance-leaved Sage. Frequent on prairies.

Salvia Pitcheri Torr. Pitchers Sage. Common.

Scutellaria cordifolia Muhl. Heart-leaved Skull-cap. One specimen from Pottawatomie County.

Scutellaria parvula Michx. Small Skullcap. One specimen from Pottawatomie County.

Teucrium Canadensis L. Wood Sage. Common in moist soil.

Teucrium laciniatum Torr. Lace-leaved Germander, Kingfisher County, J. W. Blankinship.

SOLANACEÆ.—POTATO FAMILY.

Datura Tatula L. Purple Jimson-weed. Common in rich soil around buildings.

Physalis angulata Linn. Cut-leaved Ground Cherry. Lincoln County, J. W. Blankinship.

Physalis longifolia Nutt. Long-leaved Ground Cherry. Common.

Physalis mollis Nutt. Blunt-leaved Ground Cherry. Kingfisher County, J. W. Blankinship.

Physalis pubescens L. Low, Hairy Ground Cherry. Frequent in sandy soil.

Physalis Virginiana Mill. Virginia Ground Cherry. Payne County.

Physalis Virginiana vulgaris Rydberg. Kingfisher County. Laura A. Blankinship, collector.

Quincula lobata (Torr.) Raf. Purple-flowered Ground Cherry. Frequent on prairies.

Solanum Carolinense L. Horse or Bull Nettle. A very troublesome weed in many cultivated fields.

Solanum elaeagnifolium Cav. Silver-leaved Nightshade. A bad weed in many cultivated fields and in waste places

Solanum nigrum L. Black Nightshade. Common in cultivated soil.

Solanum rostratum Dunal. Sand Bur. Common in rich soil, often a bad weed.

Solanum Torreyi A. Gray. Torrey's Nightshade. Frequent in broken soil.

Solanum triflorum Nutt. Cut-leaved Nightshade. Occasional in moist rich soil.

SCROPHULARIACEÆ.—FIGWORT FAMILY.

Azalia macrophylla (Nutt.) Kuntze. Mullen Foxglove. Frequent on prairies.

Buchnera Americana L. Blue-hearts. Lincoln County, J. W. Blankinship. Needs further observation.

Conohea multifida (Michx.) Benth. Conohea. Frequent in dry soil.

Gerardia aspera Dougl. Rough Purple Gerardia. Occasional among grasses on prairies.

Gerardia densiflora Benth. Cut-leaved Gerardia. Occasional in dry soil.

Ilysanthes gratioloides (L.) Benth. Long-stalked False Pimpernel. Payne County, S. E. Myers, collector.

Linaria Canadensis (L.) Dumont. Wild Toad-flax. Common among grasses.

Monniera rotundifolia Michx. Round-leaved Hedge-Hyssop. Occasional in muddy buffalo wallows.

Pentstemon grandiflorus Nutt. Large-flowered Beard-tongue. Occasional on eroded banks.

Pentstemon hirsutus (L.) Willd. Hairy Beard-tongue. Common on prairies among grasses.

Scrophularia Marylandica L. Pile-wort. Occasional in moist places.

Veronica peregrina L. Neckweed. Frequent in moist soil.

BIGNONIACEÆ.—TRUMPET-CREEPER FAMILY.

Tecoma radicans (L.) DC. Trumpet Creeper. Climbing high in trees in southeastern part of the territory.

MARTYNIACEÆ.—UNICORN-PLANT FAMILY.

Martynia Louisiana Mill. Unicorn-plant. Frequent, sometimes weedy in the western part of the territory.

ACANTHACEÆ.—ACANTHUS FAMILY.

Dianthera Americana L. Dense-flowered Water Willow. In water at Avoca, Pottawatomie County.

Diapedium brachiatum (Pursh.) Kuntze. Frequent in Payne County.

Ruellia ciliosa Pursh. Hairy Ruellia. Common on dry broken prairies.

Ruellia strepens L. Smooth Ruellia. Frequent among trees.

PHRYMACEÆ.—LOPSEED FAMILY.

Phryma leptostachya L. Lopseed. Common in thickets.

PLANTAGINACEÆ.—PLANTAIN FAMILY.

Plantago aristata Michx. Large-bracted Plantain. Common on barren prairies.

Plantago elongata Pursh. Slender Plantain. Kingfisher County, J. W. Blankinship.

Plantago lanceolata L. English Plantain. Frequent along roadsides.

Plantago major L. Great Plantain. Along Stillwater creek near the water.

Plantago occidentalis Dec. Southwestern Plantain. Near Cimarron river, Payne County.

Plantago Purshii R. & S. Pursh's Plantain. Common in dry barren soil.

Plantago Rugellii Dec. Rugel's Plantain. Stillwater, S. E. Myers, collector.

Plantago Virginica L. Dwarf Plantain. Frequent in dry soil.

RUBIACEÆ.—MADDER FAMILY.

Cephalanthus occidentalis L. Button Bush. Common in wet places.

Diodia teres Walt. Rough Button-weed. Common in thin dry soil underlaid with sandstone.

Galium cerceezans Michx. Wild Liquorice. Frequent in dry soil under trees.

Galium pilosum Ait. Hairy Bedstraw. Fouts, Lincoln County, J. W. Blankinship.

Galium trifidum L. Small Bedstraw. Occasional in moist or wet soil.

Houstonia angustifolia Michx. Narrow-leaved Houstonia. Common on eroded banks.

Houstonia minor (Michx.) Britt. Small Bluets. Payne County.

CAPRIFOLIACEÆ.—HONEYSUCKLE FAMILY.

Sambucus Canadensis L. American Elder. Frequent in low ground.

Symphoricarpos Symphoricarpos (L.) MacM. Coral Berry. Common along streams in shaded situations.

Viburnum prunifolium L. Black Haw. Frequent along streams.

VALERIANACEÆ.—VALERIAN FAMILY.

Valerianella radiata (L.) Dufr. Beaked Corn Salad. Common in moist soil. Other species of the order probably occur.

CUCURBITACEÆ.—GOURD FAMILY.

Citrullus vulgaris. The variety commonly called Citron or Pie Melon is often volunteer and is considered of some value as a stock food.

Cucurbita foetidissima H. B. K. Wild Pumpkin. Common in places, even becoming weedy in the western part of the territory. Root fibrous, rather spongy, about six inches in diameter, a foot or more long.

Melothria pendula L. Creeping Cucumber. Occasional along streams.

CAMPANULACEÆ.—BELL-FLOWER FAMILY.

Campanula Americana L. Tall Bell-flower. Frequent in moist situations.

Legouzia biflora (R. & P.) Britt. Frequent.

Legouzia leptocarpa (Nutt.) Britt. Wester Venus' Looking-glass. Infrequent.

Legouzia perfoliata (L.) Britt. Venus' Looking-glass. Common.

Lobelia cardinalis L. Cardinal Flower. Occasional in moist places.

CICHORIACEÆ.—CHICKORY FAMILY.

Adopogon occidentalis Nutt. Western Dwarf Dandelion. Kingfisher County, J. W. Blankinship.

Hieracium longifolium Torr. Long-bearded Hawkweed. Frequent on prairies.

Lactuca Canadensis L. Wild Opium. One specimen from Payne County.

Lactuca Ludoviciana (Nutt.) DC. One specimen from Payne County.

Nabalus altissimus (L.) Hook. Tall White Lettuce. A fragment collected by Edna B. Smith in Woods County.

Nothocalais cuspidata (Pursh.) Green. False Calais. Lincoln County, J. W. Blankinship.

Serinea oppositifolia (Raf.) Kuntz. Serinia. Common; in bloom and in fruit in April.

Sitilias grandiflora (Nutt.) Greene. Rough False Dandelion. Common on prairies.

AMBROSIACEÆ.—RAGWEED FAMILY.

Ambrosia aptera DC. Growing in similar situation and much resembling the Great Ragweed.

Ambrosia psilostachya DC. Western or Perennial Ragweed. Probably the worst weed of the Territory.

Ambrosia trifida L. Great Ragweed. Common in moist situations.

Ambrosia trifida integerifolia (Muhl.) T. & G. Apparently not common.

Iva ciliata Willd. Rough Marsh Elder. Abundant in low ground along streams.

Xanthium Canadensis Mill. American Cocklebur. Frequent in moist or rich soil. One form has unusually small fruit.

COMPOSITÆ.—THISTLE FAMILY.

Achillea lanosa Nutt. Western Yarrow. Much resembles common yarrow but probably all that occurs in the territory is this species. Common on prairies.

Amphiachyris dracunculoides (DC.) Nutt. Amphiachyris. Common in dry, rather sterile soil.

Antennaria campestris Rydberg. Prairie Cat's-foot. Fouts, Lincoln County, collected by Clara Means.

Antennaria plantaginifolia (L.) Richards. Mouse-ear Everlasting. Indian Tobacco. Frequent on dry prairies.

Anthemis Cotula Linn. Mayweed. Occasional in rich soil.

Aphanostephus skirrobasis (DC.) Trel. Aphanostephus. Common in dry or sandy soil near river courses.

Aplopappus lanceolatus T. & G. (This is probably synonymous.) Baker, Lincoln County, J. W. Blankinship.

Artemisia caudata Michx. Tall Wormwood. In sand dune near Cimarron river, Payne County.

Artemisia dracunculoides Pursh. Linear-leaved Wormwood. On high, dry prairies underlaid with sandstone.

Artemisia filifolia Torr. Silvery Wormwood. In sandy soil, Kingfisher County.

Artemisia gnaphalodes Nutt. Prairie Mugwort. Weedy in many places.

Artemisia Ludoviciana Nutt. Ball-weed. Common in some places in cultivated or waste soil. The panicle usually transformed by the work of an insect into a ball about three-fourths inch in diameter.

Artemisia Mexicana Willd. Mexican Mugwort. Payne County.

Aster Drummondii Lindl. Drummond's Aster. Common in dry and more or less shaded soil.

Aster exilis Ell. Slim Aster. Common in dry soil.

Aster oblongifolius Nutt. Aromatic Aster. Frequent on prairies among grasses.

Aster multiflorus Ait. Dense-flowered Aster. Kingfisher and Lincoln Counties, J. W. Blankinship.

Aster parviflorus A. Gray. Small-flowered Aster. Huntville Kingfisher County, J. W. Blankinship.

Aster patens gracilis Hook. Slender Aster. Common in dry woodlands.

Aster sagittifolius Willd. Arrow-leaved Aster. Lincoln County, J. W. Blankinship.

Aster salicifolius Lam. Willow Aster. Perhaps the most common species.

Aster sericeus Vent. Silky Aster. Osage Nation, J. W. Blankinship.

Baccharis neglecta Britton. Linear-leaved Baccharis. Cimarron and Canadian rivers.

Berlandiera Texana DC. Texas Berlandiera. In dry soil near small streams.

Bidens bipinnata L. Spanish Needles. Frequent.

Bidens connata Muhl. Purple-stemmed Swamp Beggarticks. Frequent in moist waste soil.

Bidens trichosperma (Michx.) Britt. Noble County, S. E. Meyers

Boltonia latisquama A. Gray. Broad-scaled Boltonia. Frequent on prairies

Brauneria pallida (Nutt.) Britt. Pale Purple Cone-flower. Common on dry prairies, especially east and south.

Carduus altissimus L. Tall Thistle. Common in moist soil.

Carduus altissimus filipendulus. A Gray. Kingfisher County, J. W. Blankinship.

Carduus ochrocentrus (A. Gray.) Green. Yellow-spined Thistle. Occasional in dry soil.

Carduus undulatus Nutt. Wavy-leaved Thistle. Common.

Carduus undulatus megacephalus (A. Gray.) Porter. Large-headed Thistle. Kingfisher and Lincoln Counties, J. W. Blankinship.

Carduus Virginianus L. Virginia Thistle. Lincoln County, J. W. Blankinship.

Centaurea Americana Nutt. American Star Thistle. Occasional on prairies.

Chaetopappa asteroides DC. Chætopappa. In dry, sandy soil in Pottawatomie and Lincoln Counties.

Chrysanthemum Leucanthemum L. White Daisy. At Stillwater, Payne County.

Chrysopsis hispida (Hook.) Nutt. Payne County, O. M. Morris, collector.

Chrysopsis Nuttallii Britt. Nuttall's Golden Aster. Common in thin, dry soil.

Chrysopsis villosa canescens A. Gray. (This may be synonymous.) Kingfisher County, J. W. Blankinship.

Coreopsis grandiflora Hogg. Large-flowered Tickseed. Common in moist soil.

Coreopsis tinctoria Nutt. Garden Tickseed. Common in moist soil.

Coreopsis Peruviana (L.) Kuntze. Wild Zinnia. Rare on dry prairies.

Dysodia papposa (Vent.) A. S. Hitchcock. Fetid Marigold. Frequent in dry soil.

Eclipta alba (L.) Haussk. Eclipta. Aquatic in natural pond near Perkins, Payne County.

Elephantopus Carolinianus Willd. Carolina Elephant's-foot. Common along small streams.

Engelmannia pinnatifida T. & G. Engelmannia. Kingfisher and Lincoln Counties, J. W. Blankinship.

Erigeron annuus (L.) Pers. Sweet Scabious. Stillwater, Payne County.

Erigeron Bellidiastrum Nutt. Western Daisy-Fleabane. In sandy soil Kingfisher County.

Erigeron canus A. Gray. Hoary Erigeron. Kingfisher County.

Erigeron Philadelphicus Skevish. Payne and Lincoln Counties.

Erigeron ramosus (Walt.) B. S. P. Daisy Fleabane. Becoming, with the following variety, very weedy in some meadows and prairies.

Erigeron ramosus Beyrechii (F. & M.) Smith and Pound. Beyrech's Fleabane. Common, growing with Daisy Fleabane.

Erigeron tenuis T. & G. Slender Fleabane. Kingfisher County, J. W. Blankinship.

Eriocarpum spinulosum DC. Cut-leaved Eriocarpum. Occasional on dry prairies.

Eupatorium altissimum L. Tall Thorough-wort. Kingfisher County, J. W. Blankinship.

Eupatorium caelestinum L. Mist Flower. Common along streams. Fine flowers late in the season. Worthy of cultivation.

Eupatorium serotinum Michx. Late-flowering Thorough-wort. Payne County, S. E. Myers, collector.

Euthamia Caroliniana (L.) Greene. Slender Fragrant Goldenrod. Common on dry prairies.

Gaillardia lanceolata Michx. Sweet Gaillardia. Frequent in thin soil over sandstone.

Gaillardia pulchella Foug. Showy Gaillardia. Erwin, Woods County, Miss E. B. Smith, collector.

Gaillardia suavis (A. Gray.) Britt. & Rusby. Rayless Gaillardia. In red, rather sterile clay soil along roadsides and on eroded banks.

Helianthus annuus L. Common Sunflower. One of the most common weeds. In rich bottom soil it grows to the height of twelve feet or more if the plants stand close together; if isolated, the plants are very branching with a basal diameter of three or more inches. There is some prospect that the plant may be utilized and if it is it will be an easy crop in Oklahoma.

Helianthus decapetalus L. Wild Sunflower. Pawhuska, Osage Nation, C. E. Regnier, collector.

Helianthus hirsutus Raf. Stiff-haired Sunflower. Lincoln County. J. W. Blankinship.

Helianthus latiflorus Pers. Snowy Sunflower. Frequent on dry prairies.

Helianthus Maximiliani Schrad. Maximilian's Sunflower. Common in moist soil.

Helianthus mollis Lam. Hairy Sunflower. Common on dry prairies among grasses.

Helianthus orygalis DC. "On limestone barrens, Pawnee County," J. W. Blankinship.

Helianthus petiolaris Nutt. Prairie Sunflower. Common, especially along streams. Seems to enjoy a moist soil.

Helianthus scaberrimus Benth. Stiff Sunflower. Frequent on prairies.

Helianthus strumosus L. Pale-leaved Wood Sunflower. Payne County.

Heterotheca subaxillaris (Lam.) Britt. & Rusby. Heterotheca. Cimarron river, Payne County; Baker, Lincoln County.

Hymenopappus tenuifolius Pursh. Woolly White Hymenopappus. Payne County.

Isopappus divaricatus (Nutt.) T. & G. Isopappus. In dry soil along Cimarron river.

Kuhnia eupatoroides L. False Boneset. Common on prairies. Roots thick and tough.

Kuhnia glutinosa Ell. Prairie False Boneset. Frequent on prairies.

Lacinaria punctata Hook. Dotted Button Snakeroot. Common on dry prairies; worthy of cultivation.

Lacinaria scariosa (L.) Hill. Large Button Snakeroot. Frequent on dry prairies. Root at base of stem thickened, hard, solid, conical about one and one-half inches in diameter.

Lacinaria squarrosa intermedia (Lindl.) Porter. Colic Root. Common on prairies. All specimens seem to be the variety and not the species.

Leptilon Canadensis L. Horse Weed. A common weed

Leptilon divaricatum (Mx.) Raf. Low Horse Weed. In dry, sandy soil, Payne County.

Mesadenia plantaginifolia Raf. Indian Plantain. In a piece of open, sandy woods near Shawnee, Pottawatomie County.

Picradenia linearifolia (Hook.) Britt. Fine-leaved Picradenia. Kingfisher County, J. W. Blankinship.

Pluchea petiolaris Cass. Inland Marsh Fleabane. Kingfisher County, J. W. Blankinship.

Polypteris Texana A. Gray. Texas Polypteris. Oklahoma County, A. B. McReynolds, collector.

Prionopsis ciliata Nutt. Prionopsis. A common weed.

Ratibida columnaris (Sims.) Don. Long-headed Cone Flower. A common weed.

Rudbeckia amplexicaulis Vahl. Clasping-leaved Coneflower. A common weed in rich soil.

Rudbeckia bicolor Nutt. Two-colored Coneflower. Kingfisher and Lincoln Counties, J. W. Blankinship.

Rudbeckia hirta L. Black-eyed Susan. Frequent in cultivated and waste soil.

Senecio Plattensis Nutt. Prairie Ragwort. Common on prairies in early spring.

Silphium asperrimum Hook. Pointed-leaved Rosin-weed. Frequent on prairies.

Silphium integrifolium Michx. Entire-leaved Rosin-weed. Frequent on prairies.

Silphium laciniatum Rosin-weed. Compass or Pilot Plant. Frequent on prairies, always in exposed situations.

Solidago Bigelovii A. Gray. Bigelow's Golden-rod. Common on open prairies.

Solidago Boottii Hook. Boot's Golden-rod. Frequent in dry shaded situations.

Solidago erecta Pursh. Slender Golden-rod. Edmond, Oklahoma County, Phronia Eckes, collector.

Solidago Missouriensis Nutt. Missouri Golden-rod. The most common golden-rod of the Territory.

Solidago Missouriensis fascicularis Holzinger. Fascicled Golden-rod. Apparently common, growing with the species.

Solidago Missouriensis Montana A. Gray. Low Slender Golden-rod. Apparently frequent, growing with the species.

Solidago nemoralis Ait. Dyer's Weed. Edmond, Oklahoma County, Phronia Eckes, collector.

Solidago nemoralis incana A. Gray. Kingfisher County, J. W. Blankinship.

Solidago petiolaris Ait. Downy Ragged Golden-rod. Payne County.

Solidago Radula Nutt. Western Golden-rod. Lincoln County, J. W. Blankinship.

Solidago rigida L. Stiff Golden-rod. Frequent on prairies.

Solidago rugosa Mill. Wrinkled-leaved Golden-rod. Frequent on prairies.

Solidago speciosa Nutt. Showy Golden-rod. Common on prairies, worthy of cultivation. The species occurs in quite distinct forms that may be good varieties.

Solidago ulmifolia macrophylla A. Gray. Lincoln County, J. W. Blankinship.

Thelesperma trifidum (Poir.) Britt. Fine-leaved Thelesperma. In dry sterile soil, Kingfisher and Lincoln Counties, J. W. Blankinship.

Verbesina alternifolia (L.) Britt. Actinomeris. Common in moist places along streams.

Verbesina helianthoides Michx. Sunflower Crownbeard. Frequent in moist places along streams.

Verbesina Virginica L. Virginia Crownbeard. Frequent in thickets along streams.

Vernonia Baldwinii Torr. Baldwin's Iron-weed. Common on prairies.

Vernonia Drummondii Shuttlw. (Synonym.) Drummond's Iron-weed. Common on prairies. This and the last species have characters scarcely sufficient to separate them. All gradations from one species to the other can easily be found by studying them in the field with plants of different ages. I consider them both one species. *Vernonia Drummondii* Shuttlw. should be discarded.

Xanthisma Texanum DC. Xanthisma. Frequent in dry barren soil.