

Proceedings of the Iowa Academy of Science

Volume 26 | Annual Issue

Article 26

1919

Flora of Mitchell County

Flora May Tuttle

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Recommended Citation

Tuttle, Flora May (1919) "Flora of Mitchell County," *Proceedings of the Iowa Academy of Science*, 26(1), 269-299.

Available at: <https://scholarworks.uni.edu/pias/vol26/iss1/26>

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FLORA OF MITCHELL COUNTY

FLORA MAY TUTTLE

From the time that I opened my eyes on the beauties of our glorious prairies, down in that little log cabin in Delaware county, I have been deeply interested in the flora of our state. Years ago the unbroken prairies were one gorgeous flower garden. The wild lily, the painted cup, fireweed, ironweed and blazing star vied with the golden glory of the sunflower and the golden rod. Some of these have so nearly become extinct that every bit of unbroken prairie is sacred ground.

My interest in Mitchell county dates back to March, 1878, and I have never ceased to search for treasures on my tramps over the county.

A large part of the data gathered has been in the vicinity of Osage, but I have always made it a point to study every locality, and with this conclusion, that Osage township is typical of the rest of the county. Here we have river, creek, pasture, waste ground, bluffs, a very little low ground, sandy soil and bayous, each clothed with its own typical verdure.

Some of the localities given after the names of the specimens found are purely local and therefore need a word of explanation.

The "Old Farm" is known to geologists as the Gable farm in Calvin's Geology of Mitchell County. Two years of my childhood were spent here and I shall never forget the delicate, fragrant beauty of the banks of Sugar creek in the springtime, when they were covered with the blue, pink and purple-tinted Hepaticas, our Mayflower. Here, too, grew Adam and Eve in conjugal bliss, the bloodroot, spring beauty, blue phlox and wild geranium, each in its time and place. The road to school for a quarter of a mile lay through dense woods, now long since cut down, and sister and I dreamed dreams and lived wonderful stories as our weary feet plodded home from school. The dark green of the oaks, the trailing virgin's bower and wild grape, or the crimson shades of the maples in autumn, made an artist of one little girl and a naturalist of the other.

Pierce's bridge is one of my favorite haunts and has revealed many secrets hid in Mother Nature's story book. There I found the rare grey birch—fifty of them; the fragile cliff brake growing from a crack in the limestone bluff; and here, too, I put three blind baby woodchucks to sleep one Memorial Day—but that is another story.

Cedar river, or Wa-shood Ne-shun-a-ga-tah, Big Timber River, as the Winnebagoes once called it, makes a big curve in Osage township, circling about Osage with a radius of two miles from west to south. Pierce's bridge is south of Osage, the Middle bridge is



FIG. 92.—The old Lime Kiln Road, Osage.

southwest, and two miles west of Osage on Main street is another bridge. The most bewildering experience that ever came to me was the day I found the colony of deep blue-purple *Chelone glabra* or Turtle Head near the Middle bridge. They stood all of five feet tall in the brink of the river, close to a bubbling spring. Every year they come true as to color. This same mutant has been found near Pierce's bridge by Mrs. Walter Wheeler, of Osage.

The old Lime Kiln road leads out of Osage southwest to the Middle bridge and is bordered on one side by vertical bluffs, and on the other side for some distance by Sugar creek.

Spring Park is a tract of about forty acres of land owned by an association for a picnic and camping site. Here is found a wonderful spring flowing the year round. From it flows a little brook filled

with water cress, blue iris, yellow marsh marigolds, and bordered by a large colony of the sensitive fern.

A forest expert on strolling through these grounds one day counted eighty-one varieties of trees. Millions of the supposedly



FIG. 93.—Rock outcrops along the Old Lime Kiln Road, Osage.

rare Muscatel grow here and on a bank overlooking the spring are found the showy orchis, while down in a moist spot have been found the Indian Pipe or corpse plant.

The River road follows the bank of Cedar river for about six miles from the bridge west of Osage up the river to Mitchell. It is one of the prettiest bits of scenery in Iowa. The peacefully flowing river, with its wonderful reflections of tree and cloud lies on one side while to the right rise sheer bluffs of limestone, draped with the graceful bladder fern and its twin sister, *Cystopteris fragilis*, wild grape, moonseed and clematis vines, with a touch of coral-colored columbine, or pink and yellow honeysuckle in their

season. If you search carefully in a shaded portion on top of the bluff you may find the lady slipper, *Cypripedium pubescens*, while clinging close to the water are the so-called lady slippers, more properly known as jewel weed, both *I. pallida* and *I. biflora*.

The Winona Track, leading out of Osage to the southwest, once a proposed railroad, is now only a trail, where hundreds of feet hurry away in the spring time, when we hear that the pussy willows are out or the mayflowers are in blossom.

The old mill, too, is a misnomer now, for all that is left of it are the old mill stones and the weed-grown race. This lies about half way between Pierce's bridge and the Middle bridge. It is so dense and damp down in there that one is sure to find some new treasure of bird, bug or botany.

The Ryan farm lies on the prairie road that runs between Osage and Mitchell and just off from the River road. It is one of my

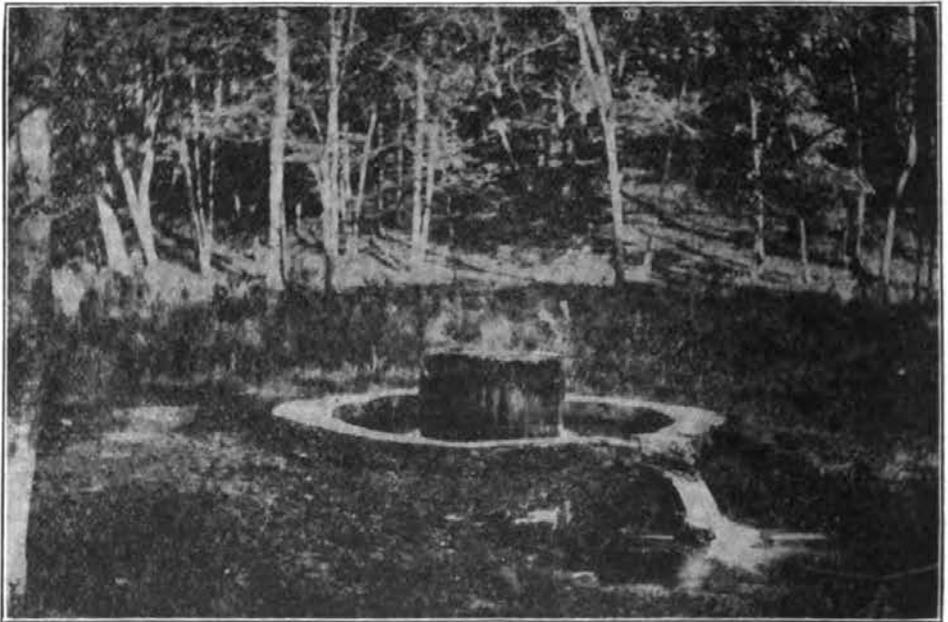


FIG. 94.—The spring at Spring Park, Osage.

favorite haunts, not only because of the natural beauties I find there, but because of the hospitality of its owners.

The Indian Head bluff is on the east bank of Cedar river about a quarter of a mile down from the bridge west on Main street. Here we find again the combination of bluff, river bank and field or pasture that brings such a varied flora. The base of the cliff is an example of one of the most puzzling nonconformities in Iowa,

FLORA OF MITCHELL COUNTY

273

while the upper layers of rock strongly resemble the features of an Indian, with a juniper or red cedar tree for a scalp lock.

Pelton's woods is a wood tract a quarter of a mile south of the fair grounds, in Osage. They are never disturbed save as the writer and her friends search for birds and plants. The shield ferns



FIG. 95.—Indian Head Bluff, Osage, showing unconformity of the strata.

here grow to enormous size, and here also is a large colony of the sensitive fern, while occasionally in the heart of these woods we have found the snowy orchis.

This paper would be incomplete were I not to lay a tribute at the feet of one of the most noted botanists in this country, who for several years has given me unstintedly of his time and with the most gracious generosity has verified hundreds of analyses and has analyzed as many more that were too difficult for me to determine. This paper would not be possible were it not for Dr. L. H. Pammel, of Ames.

Polypodiaceæ.

ADIANTUM.

A. pedatum: common in rich woods.

PTERIS.

P. aquilina: Ryan farm; river road.

Pelleæ.

P. atropurpurea: three and one-half miles northwest of St. Ansgar.

CRYPTOGRAMMA.

C. Stelleri: Pierce's bridge.

ASPLENIUM.

A. Filix-femina: once common on the streets of Osage, before the old board walks were replaced by cement; now found in rich woods.

ASPIDIUM.

A. noveboracense: Indian Head bluff.

A. Filix-mas: abundant in Pelton's woods, where the fronds are often 3 to 4 feet long.

CYSTOPERIS.

C. bulbifera: common along the banks of Cedar river.

C. fragilis: common along the banks of Cedar river.

ONOCLEA.

O. sensibilis: Pelton's woods; Lincoln township; river road.

O. Strutheropteris: rare near Osage. The writer has a large bed from a root found in Pelton's woods several years ago. But one other specimen seen and that was in Spring Park.

Osmundaceæ.

OSMUNDA.

FLORA OF MITCHELL COUNTY

275

Ophloglossaceæ.**BOTRYCHIUM.***B. virginianum*: common in rich woods.**Equisetaceæ.****EQUISETUM.***E. arvense*: Nelson's pasture; common along roadside and railroad tracks.*E. hyemale*: Nelson's pasture.**Taxaceæ.****TAXUS.***T. Canadensis*: common on the banks of Cedar river.**Pinaceæ.****JUNIPERUS.***J. virginiana*: common on banks of Cedar river.*J. sabina* (*J. horizontalis*): found near Rockford, Iowa, by Mahlon Palmer of Charles City, Iowa.**Typhaceæ.****TYPHA.***T. latifolia*: South 7th street, Osage.**Alismaceæ.****SAGITTARIA.***S. latifolia*: common around the borders of ponds or bayous.**Hydrocharitaceæ.****ELODIA.***E. canadensis*: Spring Park.**Gramineæ.****ANDROPOGON.***A. Scoparius*: banks of Cedar river.**DIGITARIA.***D. sanguinalis*: common weed.**PANICUM.***P. capillare*: common weed.*P. Scribnerianum*: river road.**CENCHRUS.***C. tribuloides*: sandy banks; railroad track.

PHLEUM.

P. pratense: common.

ALOPECURUS.

A. geniculatus: Gardner Nursery Company, Osage.

AGROSTIS.

A. alba: Pelton's woods.

KCELERIA.

K. Cristata: river road.

AVENA.

A. sativa: roadsides.

SPARTINA.

S. Michauxiana: Burr Oak township; South 7th street, Osage.

ERAGROSTIS.

E. Megastachya: Cedar river bank, railroad track.

POA.

P. triflora: Pelton's woods.

GLYCERIA.

G. grandis: South 7th street, Osage.

BROMUS.

B. commutatus: river road.

B. ciliatum: bank of Cedar river.

B. inermis: Indian Head bluff.

AGROPYRON.

A. repens: railroad track.

A. spicatum: 1233 State street, Osage.

A. Smithii: railroad track; roadsides.

HORDEUM.

H. jubatum: roadside.

ELYMUS.

E. Canadensis: South 7th street, Osage.

E. striatus: river road.

HYSTRIX.

H. patula: river road.

FLORA OF MITCHELL COUNTY

277

Cyperaceæ.

SCIRPUS.

S. validus: South 7th street, Osage.

S. atrovirens: Pierce's bridge.

ERIOPHORUM.

E. angustifolium: Riceville.

Araceæ.

ARISÆMA.

A. triphyllum: common in rich woods.

SYMPLOCARPUS.

S. fætidus: Riceville, collected by Mahlon Palmer, of Charles City, Iowa.

Commelinaceæ.

TRADESCANTIA.

T. bracteata: river banks.

Juncaceæ.

JUNCUS.

J. tenuis: Spring Park.

Liliaceæ.

ZYGADENUS.

Z. Chloranthus: Riceville.

UVULARIA.

U. perfoliata: common in rich woods.

ALLIUM.

A. cernuum: Old mill.

A. Canadense: Spring Park.

NATHOSCORDUM.

N. bivalve: woods near Osage.

LILIUM.

L. philadelphicum var. *andinum*: railroad track.

L. superbum: railroad track: also a bed in the writer's garden.

L. canadense: railroad track.

ERYTHRONIUM.

E. albidum: common in woods and roadside.

SMILACINA.

S. racemosa: common in rich woods.

S. stellata: common in rich woods.

POLYGONATUM.

P. biflorum: common in rich woods.

P. commutatum: common in rich woods.

TRILLIUM.

T. grandiflorum: rich woods, rare.

T. cernuum: rich woods, common.

T. nivale: rich woods, common.

T. undulatum: Rockford, Iowa, collected by Mahlon Palmer of Charles City, Iowa.

SMILAX.

S. herbacea: common.

S. scirrhata: Simpson farm in Lincoln township.

S. rotundifolia: Iron spring on the river road.

Dioscoriaceæ.

DISCOREA.

D. villosa: river road; Mitchell.

Amaryllidaceæ.

HYPOXIS.

H. hirsuta: river banks.

Iridaceæ.

IRIS.

I. versicolor: edge of Cedar river or bayous.

SISYRINCHIUM.

S. angustifolium: Pierce's bridge.

Orchidaceæ.

CYPRIPEDIUM.

C. parviflorum var. *pubescens*: river road; Riceville.

C. candidum: reported by old settlers.

C. acaule: reported by old settlers.

ORCHIS.

O. spectabilis: Moore's woods that formerly stood on South 7th street, Osage; Pelton's woods; Spring Park.

FLORA OF MITCHELL COUNTY

279

CALOPOGON.

C. pulchellus: Riceville, collected by Mrs. Walter Wheeler, Osage.

APLECTRUM.

A. hyemale: rich woods.

Salicaceæ.

SALIX.

S. amygdaloides: Ryan farm.

S. longifolia: river road.

S. cordata: Nelson's pasture.

S. discolor: Winona track.

S. humilis: prairie near Osage.

S. rostrata: Simpson farm in Lincoln township.

POPULUS.

P. alba: Osage; Winona track.

P. tremuloides: common everywhere.

P. grandidentata: Orchard; Winona track; North 7th street.

P. candicans: Mitchell; Pierce's bridge.

P. deltoides: Osage; Winona track; Old farm.

(*P. nigra*: escaped from cultivation.)

Juglandaceæ.

JUGLANS.

J. cinerea: Winona track; in moist woodlands.

J. nigra: river bank; old mill.

CARYA.

C. ovata: Nelson's pasture the only locality found, so far, in Mitchell county. This was a sapling.

C. glabra: Nelson's pasture.

C. cordiformis: Winona track; common.

Betulaceæ.

CORYLUS.

C. americana: Lincoln township; common along roadside.

OSTRYA.

O. virginiana: South 7th street; common.

CARPINUS.

C. caroliniana: Pierce's bridge; Old Lime Kiln road.

BETULA.

B. lutea: fifty trees counted at Pierce's bridge; Middle bridge; Spring Park.

B. alba var. *papyrifera*: common at Pierce's bridge.

Fagaceæ.

QUERCUS.

Q. alba: Old mill; South 7th street, Osage; Winona track.

Q. macrocarpa: common.

Q. rubra: Ryan farm; common.

Q. ellipsoidalis: Winona track; common.

Q. velutina?: Ryan farm, two young trees that answer the description very well.

Urticaceæ.

ULMUS.

U. fulva: common everywhere.

U. americana: common everywhere.

U. racemosa: South 12th street, Osage; Spring Park.

CELTIS.

C. occidentalis: river banks; Spring Park; river road.

CANNABIS.

C. sativa: Middle bridge; roadsides.

HUMULUS.

H. Lupulus: North 10th street.

URTICA.

U. gracilis: Pelton's wood; common.

PILEA.

P. pumila: a common weed.

Aristolochiaceæ.

ASARUM.

A. canadense: common on banks of streams.

Polygonaceæ.

RUMEX.

R. patientia: Simpson farm in Lincoln township.

R. crispus: East Mechanic street, Osage; common along roadside.

R. altissimus: two miles east of Osage.

R. acetosella: common weed.

FLORA OF MITCHELL COUNTY

281

POLYGONUM.

- P. aviculare*: common weed.
P. lapathifolium: Osage.
P. Muhlenbergii: South 7th street, Osage; river banks.
P. orientale: Spring Park.
P. Persicaria: common weed.
P. virginianum: river bank, Pierce's bridge to Middle bridge.
P. convolvulus: East State street, Osage.

FAGOPYRUM.

- F. esculentum*: waste places.

Chenopodiaceæ.

CHENOPODIUM.

- C. album*: common everywhere.

ATRIPLEX.

- A. patula* var. *hastata*: Osage.

Amaranthaceæ.

AMARANTHUS.

- A. retroflexus*: common weed.
A. paniculatus: Old mill.
A. spinosus: Osage.
A. blitoides: Osage.

Nyctaginaceæ.

OXYBAPHUS.

- O. nyctagineus*: roadsides; railroad track.

Caryophyllaceæ.

ARENARIA.

- A. lateriflora*: Middle bridge.

STELLARIA.

- S. longifolia*: Middle bridge.
S. media: common.

CERASTIUM.

- C. arvense*: fields.
C. nutans: Pierce's bridge; Spring Park.

AGROSTEMMA.

A. Githago: 1114 State street, Osage; wheat field near Nelson's pasture.

LYCHNIS.

L. chalconica: 1114 State street.

L. alba: Spring Park.

SILENE.

S. antirrhina: Riceville, collected by Mrs. Walter Wheeler.

S. noctiflora: 1114 State street, Osage.

S. stellata: river road; common.

S. latifolia: Simpson farm in Lincoln township.

S. virginica: Simpson farm in Lincoln township.

SAPONARIA.

S. officinalis: common.

S. vaccaria: 1114 State street, Osage.

Portulacaceæ.

CLAYTONIA.

C. virginica: common in rich woods.

PORTULACA.

P. oleracea: common weed.

Ceratophyllaceæ.

CERATOPHYLLUM.

C. demersum: Spring Park.

Nymphæaceæ.

NYMPHÆA.

N. advena: common in still water.

CASTALIA.

C. odorata: In still water.

Ranunculaceæ.

RANUNCULUS.

R. abortivus: common weed.

R. septentrionalis: moist places.

R. pennsylvanicus: bank of Cedar river.

FLORA OF MITCHELL COUNTY

283

THALICTRUM.*T. revolutum*: Pelton's woods.*T. polygonum*: roadsides, especially bordering woods.**HEPATICA.***H. acutiloba*: common in shady woods.**ANEMONE.***A. cylindrica*: Spring Park; common.*A. virginiana*: Spring Park; common.*A. canadensis*: Spring Park; common.*A. quinquefolia*: shady woods.**CLEMATIS.***C. virginiana*: river banks; common.**ISOPYRUM.***I. biternatum*: shady woods everywhere.**CALTHA.***C. palustris*: Spring Park.**AQUILEGIA.***A. canadensis*: shady woods; river banks.**DELPHINIUM.***D. Penardi*: railroad track.**ACTÆA.***A. rubra*: river road; Nelson's pasture.*A. alba*: river road; Pelton's woods.**Menispermaceæ.****MENISPERMUM.***M. canadense*: river banks; Old farm; roads bordered by woods.**CALYCOCARPUM.***C. Lyoni*: river road.**Berberidaceæ.****PODOPHYLLUM.***P. peltatum*: rich woods.**Papaveraceæ.****SANGUINARIA.***S. canadensis*: common in woods or cut over land.

Fumariaceæ.

DICENTRA.

D. cucullaria: river banks; rich woods.

CORYDALUS.

C. aurea: river bank.

Cruciferae.

(*Draba caroliniana*: just over the line in Floyd county.)

LEPIDIUM.

P. apetalum: common weed.

CAPSELLA.

C. Bursa pastoris: common weed.

BRASSICA.

B. arvensis: common weed.

B. Juncea: common weed.

B. nigra: common weed.

CONRINGIA.

C. orientalis: corner of 11th and Pleasant streets; 1114 State street. Doubtless introduced in chick feed.

SISYMBRIUM.

S. officinale.

ERYSIMUM.

• *E. cheiranthoides*: Pierce's bridge.

E. asperum: Simpson farm in Lincoln township.

RADICULA.

R. Nasturtium aquaticum: Spring Park.

R. palustris var. *hispida*: Pelton's woods.

IODANTHUS.

I. pinnatifidus: Middle bridge.

DENTARIA.

D. laciniata: common in moist woods.

CARDAMINE.

C. bulbosa: Spring Park.

C. Douglassii: Orchard, Iowa.

FLORA OF MITCHELL COUNTY

285

ARABIS.

A. virginica: Pierce's bridge.

Crassulaceæ.

PENTHORUM.

P. sedoides: Pierce's bridge.

Saxifragaceæ.

SAXIFRAGA.

S. pennsylvanica: Riceville (just over the county line).

HEUCHERA.

H. villosa: river bank.

MITELLA.

M. diphylla: rich woods, stream banks.

RIBES.

R. cynosbati: woods and pastures.

R. oxycanthoides: woods and pastures.

R. floridum: Pierce's bridge.

Rosaceæ.

PHYSOCARPUS.

P. opulifolius: Pierce's bridge; river banks.

SPIRÆA.

S. salicifolia: railroad track.

PYRUS.

P. coronaria: common in open woods.

P. ioensis: South 7th street, Osage.

P. sitchensis: Indian Head bluff.

P. Aucuparia: Pelton's woods.

AMELANCHIER.

A. canadensis: Iron spring on the river road.

CRATÆGUS.

C. punctata: Pierce's bridge; Spring Park; corner 8th and Mechanic streets, Osage.

C. coccinea: Spring Park.

C. mollis: river road.

FRAGARIA.

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F. virginiana: common everywhere.

POTENTILLA.

- P. monspeliensis*: East State street, Osage.
P. tridentata: East State street, Osage.
P. canadensis: Simpson Farm, Lincoln township.

GEUM.

- G. canadense*: East State street, Osage.
G. macrophyllum: Old farm.
G. triflorum: St. Ansgar.

RUBUS.

- R. aculeatissimus*: borders of woods.
R. occidentalis: borders of woods.
R. villosus (?): borders of woods.

AGRIMONIA.

- A. gryposepala*: Pierce's bridge.

ROSA.

- R. pratincola*: Old farm.
R. Woodsii: roadsides.
R. carolina: roadsides.

PRUNUS.

- P. serotina*: Fair grounds, Osage.
P. virginiana: Fair grounds, Osage.
P. pennsylvanica: Pierce's bridge.
P. Americana: Railroad track; along streams.

Leguminosæ.

GYMNOCLADUS.

- G. dioica*: South of Orchard; Burr Oak township.

GLEDITZIA.

- G. triacanthos*: South 4th street, Osage.

CASSIA.

- C. marilandica*: railroad track.
C. chamæcrista: railroad track.

BAPTISIA.

- B. leucantha*: railroad track; Riceville, collected by Mrs. Walter Wheeler.

FLORA OF MITCHELL COUNTY

287

TRIFOLIUM.

- T. pratense*: roadside.
T. repens: roadside.
T. hybridum: roadside.
T. procumbens: roadside.
T. agrarium: roadside.

MELILOTUS.

- M. officinalis*: roadside, not common.
M. alba: roadside, common.

MEDICAGO.

- M. sativa*: roadside.

PSORALEA.

- P. agrophylla*: railroad track.

AMORPHA.

- A. canescens*: prairie.
A. fruticosa: Burr Oak.

PETALOSTEMUM.

- P. purpureum*: railroad track.
P. candidum: Mitchell.

ROBINIA.

- R. Pseudo-Acacia*: East Chase street, Osage

ASTRAGALUS.

- A. canadensis*: six miles south of Osage.

DESMODIUM.

- D. grandiflorum*: Pelton's woods.
D. canadense: river bank.

VICIA.

- V. americana*: Middle bridge; river road.

LATHYRUS.

- L. venosus*: Ryan farm.
L. ochrolencus: river road.

APIOS.

- A. puberosa*: river road.

AMPHICARPA.

A. monoica: East Chase street, Osage.

Oxalidaceæ.

OXALIS.

O. violaceæ: cemetery, Osage; river bank.

O. stricta: common weed.

O. corniculata: common weed.

Geraniaceæ.

GERANIUM.

G. maculatum: common in open woods.

G. carolinianum: Osage.

Rutaceæ.

ZANTHOXYLUM.

Z. americanum: common in woods and on the river bank.

Polygalaceæ.

POLYGALA.

P. Senega: river road; Pierce's bridge.

P. sanguinea: railroad track between Osage and St. Ansgar.

Euphorbiaceæ.

ACALYPHA.

A. virginica: common weed, Osage.

EUPHORBIA.

E. maculata: East State street, Osage.

E. corollata: Fair grounds, Osage.

E. cyparissias: cemetery.

Anacardiaceæ.

RHUS.

R. glabra: common along the roadside.

R. toxicodendron: roadsides, woods, fields.

Celastraceæ.

EVONYMUS.

E. atropurpureus: ravine on the Old farm; river banks.

CELASTRUS.

FLORA OF MITCHELL COUNTY

289

STAPHYLEA.

S. trifolia: Pierce's bridge.

Aceraceæ.

ACER.

A. saccharum: common in all woods.

A. saccharum var. *nigrum*: 1114 State street, Osage.

A. saccharinum: woods; streets of Osage.

A. rubrum: Spring Park; old mill.

A. Negundo: common in woods.

Balsaminaceæ.

IMPATIENS.

I. pallida: common in moist places.

I. biflora: common in moist places.

Rhamnaceæ.

CEANOTHUS.

C. americanus: railroad track near St. Ansgar.

Vitaceæ.

PSEDERA.

P. quinquefolia: common in woods and along the roadside.

VITIS.

V. vulpina: common in woods; river banks and along roadside.

Tiliaceæ.

TILIA.

T. americana: rich woods.

Malvaceæ.

ABUTILON.

A. Theophrasti: waste places.

MALVA.

M. rotundifolia: common weed.

Hypericaceæ.

HYPERICUM.

H. Áscyron: Nelson's pasture.

H. perforatum: Spring Park.

Cistaceæ.

HELIANTHEMUM.

H. canadense: Riceville, collected by Mrs. Walter Wheeler.

LECHEA.

L. minor: Riceville, collected by Mrs. Walter Wheeler.

Violaceæ.

VIOLA.

V. cucullata: woods, common.

V. pedatifida: Pierce's bridge; prairie land; cemetery, Osage.

V. blanda: rich woods, rare.

V. pubescens: common.

Onagraceæ.

EPILOBIUM.

E. angustifolium: railroad track between Osage and St. Ansgar.

GENOTHERA.

O. biennis: Middle bridge; common along roadside.

O. rhombipetala: Nelson's pasture near Cedar river.

O. serrulata: St. Ansgar.

CIRCÆA.

C. lutetiana: Pelton's woods.

Araliaceæ.

ARALIA.

A. racemosa: Pelton's woods; Simpson farm in Lincoln township.

A. nudicaulis: Iron spring on the river road.

PANAX.

P. triflorum: river road.

Umbelliferæ.

ERYNGIUM.

E. Yuccifolium: railroad track.

E. aquaticum: seven miles south of Osage.

SANICULA.

S. marylandica: Pelton's woods.

S. gregaria: Pelton's woods.

OSMORHIZA.

O. Claytoni: Pelton's woods.

FLORA OF MITCHELL COUNTY

291

CICUTA.

C. maculata: Pelton's woods; New Haven.

CRYPTOTÆNIA.

C. canadensis: South 7th street, Osage; Pelton's woods.

ZIZIA.

Z. aurea: Osage.

Z. cordata: Simpson farm, Lincoln township.

TÆNIDIA.

T. integerrima: Iron spring, river road.

THASPIUM.

T. barbinode: river road.

PASTINACA.

P. sativa: river bank.

HERACLEUM.

H. lanatum: railroad track.

Cornaceæ.

CORNUS.

C. circinata: six miles south of Osage.

C. asperifolia: Fair grounds; river road.

C. stolonifera: six miles south of Osage.

C. paniculata: Fair grounds; river road.

C. alternifolius: Ryan farm.

Ericaceæ.

PYROLA.

P. elliptica: Iron spring on the river road; Sawyer farm near Mona.

P. americana: Pierce's bridge.

MONOTROPA.

M. uniflora: Spring Park.

Primulaceæ.

STIERONEMA.

S. ciliatum: Fair grounds; border of Pelton's woods.

S. lancaolatum: Nelson's pasture.

DODECATHEON.

D. meadia: Riceville, collected by Mrs. Walter Wheeler.

Ollaceæ.

FRAXINUS.

F. americana: Simpson farm in Lincoln township.

F. pennsylvanica: river road; banks of Cedar river.

F. pennsylvanica var. *lanceolata*: corner 9th and Main streets, Osage.

F. nigra: Spring park.

Gentianaceæ.

GENTIANA.

G. quinquefolia: Pierce's bridge.

G. flavida: Old lime kiln.

G. linearis: river bank between Pierce's bridge and the Middle bridge.

Apocynaceæ.

APOCYNUM.

A. androsæmifolium: roadside.

A. cannabinum: roadside; near river.

Asclepiadaceæ.

ASCLEPIAS.

A. tuberosa: fields and banks of river.

A. incarnata: South 7th street; wet places.

A. syriaca: roadside.

A. verticillata: railroad track.

A. phytolaccoides: St. Ansgar.

Convolvulaceæ.

CONVOLVULUS.

C. sepium: South 7th street, Osage.

C. arvensis: six miles south of Osage.

CUSCUTA.

C. arvensis: South 4th street, Osage.

Polemoniaceæ.

PHLOX.

P. maculata: Riceville, collected by Mrs. Walter Wheeler.

P. pilosa: cemetery, Osage; prairies.

P. divaricata: common in all woods.

FLORA OF MITCHELL COUNTY

293

POLEMONIUM.

P. reptans: rich woods.

Hydrophyllaceae.

HYDROPHYLLUM.

H. virginianum: woods; roadside.

H. canadense: Spring Park.

H. appendiculatum: Spring Park.

ELLISIA.

E. Nyctelia: common weed.

PHACELIA.

P. bipinatifida: Spring Park.

Boraginaceae.

CYNNOGLOSSUM.

C. virginianum: North 7th street, Osage.

LAPPULA.

L. virginiana: common weed in woods.

L. echinata: Nelson's pasture near the river.

MERTENSEA.

M. virginica: rich woods near streams.

LITHOSPERMUM.

L. canescens: six miles south of Osage.

L. angustifolium: six miles south of Osage.

ONOSMODIUM.

O. hispidissimum: river banks.

Verbenaceae.

VERBENA.

V. urticæfolia: roadsides; waste ground.

V. hastata: common in fields.

V. stricta: fields. The writer has found it in red, white and pink as well as purple.

V. bracteosa: waste ground.

Labiatae.

TEUCRIUM.

T. canadense: Pierre's bridge.

T. occidentale: Simpson farm, Lincoln township.

SCUTELLARIA.

S. lateriflora: river banks.

AGASTACHE.

A. scrophulariaefolia: Simpson farm, Lincoln township.

DRACOCEPHALUM.

D. parviflorum: Pelton's woods.

PRUNELLA.

P. vulgaris: woods and fields.

PHYSOSTEGIA.

P. virginiana: river banks.

GALEOPSIS.

G. tetrahit: river bank.

LEONURUS.

L. cardiaca: Pierce's bridge.

STACHYS.

S. tenuifolia: Indian Head bluff.

S. aspera: Pelton's woods.

S. palustris: Middle bridge.

MONARDA.

M. fistulosa: roadsides.

HEDEOMA.

H. hispida: Middle bridge.

ORIGANUM.

O. vulgare: South of Osage.

PYCNANTHEMUM.

P. virginianum: Burr Oak.

LYCOPUS.

L. virginicus: Pierce's bridge.

L. americanus: Pierce's bridge.

MENTHA.

M. arvensis var. *canadensis*: Middle bridge.

FLORA OF MITCHELL COUNTY

295

Solanaceæ.**SOLANUM.**

- S. Dulcamara*: North 7th street, Osage.
S. nigrum: common weed.
S. rostratum: Osage.

PHYSALIS.

- P. virginiana*: roadside; railroad track.
P. subglabrata: roadside; railroad track.

Scrophulariaceæ.**VERBASCUM.**

- V. thapsus*: common weed.

LINARIA.

- L. vulgaris*: roadsides.

SCROPHULARIA.

- S. marilandica*: open woods.

CHELONE.

- C. glabra*: Pierce's bridge; Middle bridge. Both colonies were a deep blue-purple fading to white, with no suggestion of pink.

MIMULUS.

- M. ringens*: Little Cedar.

ILYSANTHES.

- I. dubia*: river banks.

VERONICA.

- V. virginica*: Indian Head bluff; common in rich woods.
V. Tournefortii: 1114 State street, Osage.
V. anagallis-aquatica: Spring Park.

GERARDIA.

- G. aspera*: prairie.
G. tenuifolia: low ground near the river.

PEDICULARIS.

- P. canadensis*:

Phrymaceæ.**PHRYMA.**

- P. luteostalkya*: Spring Park; Pierce's bridge.

Plantaginaceæ.

PLANTAGO.

P. major: common weed.

Rubiaceæ.

GALIUM.

G. boreale: roadsides.

G. trifidum: rich woods.

G. concinnum: railroad track.

G. triflorum: Simpson farm, Lincoln township.

HOUSTONIA.

H. purpurea: Spring Park.

Caprifoliaceæ.

LONICERA.

L. tatarica: Osage.

L. canadensis: Mitchell.

SYMPHORICARPOS.

S. occidentalis: river road; Nelson's pasture.

TRIOSTEUM.

T. perfoliatum: Winona track.

VIBURNUM.

V. opulus var. *americanum*: Pierce's bridge.

V. pubescens: Iron spring on the river road.

V. lentago: river road.

V. prunifolium: Fair grounds.

SAMBUCUS.

S. canadensis: borders of woods.

ADOXA.

A. Moschatellina: Indian Head bluff; Spring Park; Pelton's woods.

Valerianaceæ.

VALERIANA.

V. edulis: Riceville, collected by Mrs. Walter Wheeler.

Cucurbitaceæ.

ECHINOCYSTIS.

E. lobata: river banks.

FLORA OF MITCHELL COUNTY

297

Campanulaceae.**CAMPANULA.**

- C. rapunculoides*: 1233 State street, Osage.
C. americana: river banks.
C. aparinoides: river banks.

Lobeliaceae.**LOBELIA.**

- L. siphilitica*: river banks.
L. spicata: river banks.

Compositae.**VERNONIA.**

- V. fasciculata*: prairie.

EUPATORIUM.

- E. purpureum*: woods.
E. altissimum: six miles south of Osage.
E. perfoliatum: rich woods.
E. urticæfolium: common everywhere.

LIATRIS.

- L. scariosa*: roadsides; prairies.
L. pycnostachya: roadsides.

SOLIDAGO.

- S. latifolia*: Middle bridge.
S. speciosa: roadsides.
S. nemoralis: prairie.
S. canadensis: prairie.
S. serotina: roadsides.
S. rigida: roadsides.

ASTER.

- A. oblongifolius*: river banks.
A. undulatus: roadsides.
A. sagittifolius: roadsides.
A. Drummondi: river bank.
A. laevis: river bank; Simpson farm, Lincoln township.
A. multiflorus: Riceville, collected by Mrs. Walter Wheeler.
A. lateriflorus: river bank; West Main street, Osage.
A. salicifolius: Pierce's bridge.
A. umbellatus: South 7th street, Osage.
A. dwarficatus: Pierce's bridge.

ERIGERON.

- E. philadelphicus*: Middle bridge.
E. annuus: South 4th street, Osage.
E. canadensis: common weed.

ANTENNARIA.

- A. plantaginifolia*: Middle bridge; Indian Head bluff.

SILPHIUM.

- S. laciniatum*: roadside; prairie.
S. perfoliatum: roadsides.

PARTHENIUM.

- P. integrifolium*: six miles south of Osage.

AMBROSIA.

- A. trifida*: roadsides, Osage.
A. artemisiifolia: roadsides, Osage.
A. psilostachya: roadsides, Osage.

HELIOPSIS.

- H. scabra*: Simpson farm, Lincoln township.

RUDBECKIA.

- R. laciniata*: Simpson farm, Lincoln township; roadsides.
R. hirta: common along the roadsides.

BRAUNERIA.

- B. purpurea*: roadsides on the prairie.

HELIANTHUS.

- H. annuus*: river bank, Pierce's bridge to Middle bridge.
H. latiflorus: roadsides.
H. grosseserratus: Simpson farm, Lincoln township.
H. strumosus: river bank, Pierce's bridge to Middle bridge.

COREOPSIS.

- C. palmata*: Simpson farm, Lincoln township; St. Ansgar.

BIDENS.

- B. connata*: river bank near the Old Mill.
B. trichosperma: river bank near the Old Mill.
B. vulgata: Osage.
B. cernua: Pierce's bridge.

GALINSOGA.

- G. parviflora*: common weed.

FLORA OF MITCHELL COUNTY

299

HELENIUM.

H. autumnale: river banks.

ACHILLEA.

A. Millefolium: common weed.

ANTHEMIS.

A. Cotula: common weed.

TANACETUM.

T. vulgare: common roadside weed.

ARTEMISIA.

A. caudata: river bank.*A. ludoviciana*: East Pleasant street, Osage.*A. biennis*: 1114 State street, Osage.

CACALIA.

C. suaveolens: river bank, Pierce's bridge to Middle bridge.

SENECIO.

S. aureus: Spring Park.

ARCTIUM.

A. Lappa: common weed.

CIRSIUM.

C. lanceolatum: pastures and roadsides.*C. Hillii*: railroad track.*C. arvense*: railroad track.*C. altissimum*: East State street, Osage.

CICHORIUM.

C. Intybus: East State street, Osage.

TARAXACUM.

T. officinale: common weed.

SONCHUS.

S. oleraceus: common weed.*S. asper*: common weed.

LACTUCA.

L. scariola: common weed.*L. canadensis*: common weed.

PRENANTHES.

P. alba: Simpson farm, Lincoln township.

HIERACIUM.

H. aurantiacum: 1114 State street, Osage.