

BOTANICAL.

Written for the PRAIRIE FARMER

Observations on the Flora of Western Central Illinois.

The interest taken in the study of Botany and other departments of Natural Science, by many persons at this present time, and especially by the Natural History Society of Illinois, will be a sufficient apology for my undertaking to make a few observations on the native vegetation of the Western Central portion of this State. My observations will be almost entirely restricted to the counties of Hancock, Adams, Schuyler, McDonough, Fulton, Mason and Cass. The soil and character of this district assumes various forms; of course its native productions are essentially different.

The prominent and more important natural division of this diversified tract is into prairie and timbered portions. Each of these regions is again distributed into wet and dry. The wet portion along rivers and large creeks form bottoms, more or less overflowed at different times, of large or smaller extent.

Between the Illinois and Mississippi rivers this midland portion is mostly of a clayey loam. Small tracts, however, are occasionally met with, composed almost entirely of sand, in which is found a vegetation distinct and peculiar to itself. Perhaps these sandy regions are the most attractive, inviting and interesting to the Botanist, because here many strange and rare plants are to be noticed.

Over the wild and uncultivated prairies we may easily observe that the Vernal and Autumnal Flora are of a different hue, as well as of another set of different species, though not very numerous, yet each kind abounding in great profusion.

In Spring the prevailing colors are light pink or purple, and as the season advances towards summer the colors are of a deeper red or dark purple, but in Autumn the yellow colors predominate and abound.

On the cultivated prairies this profusion of their peculiar species is disturbed or destroyed. Plants that were formerly abundant have almost disappeared, so that now only a few scattering specimens can be found, if found at all. Some species of plants met with in abundance on prairies, are seldom if ever found in the adjoining timbered land, and so on the contrary, others growing abundant in the timbered tracts are not seen on the prairies, the soil in each tract being of a different and peculiar character, is not congenial or suitable to the growth of some particular species. I may here remark that the Ferns are exclusively confined to the timbered region.

A few plants are quite local in some of these different situations, though they may be abundant in that particular place. Some are confined to the high rolling prairie, to the hills in the timber regions, to the sandy barrens which exist in some parts east of the Illinois river, and also adjacent to the Mississippi river or its overflowed bottoms, especially west of it in Missouri. In all these sandy regions some of the same species of plants are found, a few only being peculiar to each place.

My purpose at present is only to give an account of the rarer plants discovered in these different situations, in order to facilitate the study of plants growing in this district, and to give

Botanists in their explorations, the information so desirable to possess when anxious to collect particular species. I do not expect, however, I shall be able to name fully and completely every rare plant within this midland district, over which I have travelled so much; yet it is probable no new undescribed species will be detected.

Those species of plants most interesting, and found only in similar situations, are the following. I begin with the large rivers, naming first those growing along their banks and overflowed bottoms:

Nelumbium luteum, Willd.; *Brasenia peltata*, Ph.; *Nymphaea odorata*, Ait.; *Nuphar advena*, Ait.; *Corydalis aurea*, Willd.; *Nasturtium sinuatum*, N.; *Nasturtium obtusum*, N.; *Isodus hesperoides*, T. & G.; *Arabis Ludoviciana*, Meyer; *Erythronium cheiranthoides*, L.; *Sisymbrium canescens*, N.; *Gymnandropsis pentaphylla*, DC.; *Hibiscus militaris*, Cav.; *Vitis indiana*, Willd.; *Aesculus glabra*, Willd.; *Negundo aceroides*, Moench; *Gymnocladus canadensis*, Lam.; *Gleditsia triacanthos*, L.; *Spermacoce glabra*, Mx.; *Xanthium echinatum*, Murr.; *Eclipta procumbens*, Mx.; *Diospyros virginiana*, L.; *Ipomoea lacunosa*, L.; *Amsinca tabernaemontana*, Walt.; *Montelia tamariscina*, Gray; *Benzois odorifera*, Nees; *Carya olivaeformis*, N.; *Vallisneria spiralis*, L.; *Calopogon pulchellus*, R. Br.; *Cyperus flavescens*, L.; *Cyperus inflexus*, L.; *Hemicarpha subquarrosa*, Nees; *Phalaris arundinacea*, L.; *Equisetum robustum*, Brown.

Next I will mention those growing on the hills or dry ground within a short distance of these large rivers.

Clematis Pitcheri, T. & G. (Warsaw); *Clematis viorna*, L.; *Delphinium azureum*, Mx.; *Draba caroliniana*, Walt.; *Polemonis graveolens*, Raf.; *Geranium carolinianum*, L.; *Psoralea obovata*, N. (Warsaw); *Lathyrus palustris*, L.; *Lathyrus venosus*, Mx.; *Cypripedium pubescens*, Jacq.; *Cornus florida*, L. (Frederic); *Symphoricarpos vulgaris*, Mx.; *Plantago virginiana*, L.; *Eupatorium serotinum*, Mx.; *Monarda Bradburiana*, Bk. (Frederic); *Hordeum pusillum*, N.; *Cinchona triloboides*, L.; *Carex tentaculata*, Willd. (Warsaw), in a ravine between the hills.

I will now proceed to enumerate some of those rare and interesting species found along the large creeks and their branches. Here we may see some of the same plants which grow in greater abundance along the large rivers. I commence first with those growing on their occasionally overflowed bottoms.

Asimina triloba, Durrel; *Nasturtium leucostre*, Gray; *Dentaria laciniata*, Muhl; *Arabis dentata*, T. & G.; *Viola striata*, Ait.; *Silene nivea*, D. C.; *Trifolium stoloniferum*, Muhl; *Spiraea salicifolia*, L.; *Hypobrychia Nuttallii*, T. & G.; *Sicyos angulata*, L.; *Echinocystis lobata*, T. & G.; *Heracleum lanatum*, Mx.; *Erigeron bulbosus*, N.; *Polymnia canadensis*, L.; *Silphium perfoliatum*, L.; *Rudbeckia triloba*, L.; *Cacalia suaveolens*, L.; *Cacalia reniformis*, Muhl; *Tocoma radicans*, Tuck.; *Collinsia verna*, N.; *Mertensia virginica*, D. C.; *Ipomoea pandurata*, Meyer; *Dianthera Americana*, L.; *Dipteracanthus strepens*, Nees; *Lippia lanceolata*, Mx.; *Menisium albidum*, N.; *Fraxinus quadrangulata*, Mx.; *Rumex verticillatus*, L.; *Carya sulcata*, N.; *Betula nigra*, L.; *Acorus calamus*, L.; *Portulaca cordata*, L.; *Carex crux corvi*, Shult.; *Carex stipitata*, Muhl; *Carex vulpina*, L.; *Carex arida*, Torr.; *Carex spartea*, Dew.; *Tricuspis sceleroides*, Torr.; *Diarrhena americana*, Beau.; *Equisetum levigatum*, Braun; *Struthiopteris germanica*, L.

On the dry banks, on the hills, and in the tracts near these creeks we find the following species:

Hypericum prolificum, L.; *Najas*, L. (Fulton Co.); *Amorpha fruticosa*, L.; *Spiraea anglica*, L.; *Chamaerophyllum procumbens*, Lam.; *Cornus spicata*, L.; *Cornus asperifolia*, Mx.; *Helianthus doronicifolius*, Lam.; *Cacalia atriplicifolia*, L.; *Myosotis verna*, N.; *Quercus castanea*, Willd.; *Veratrum Woodii*, Robb.; *Carex longirostris*, Torr.; *Tripsacum dactyloides*, L.

A simple enumeration will be sufficient of the native productions of the timbered land, which does not properly fall within the preceding divisions. First, on the timbered land we find

Anemone pennsylvanica; *Isopyrum biternatum*, T. & G.; *Eucnema atropurpurea*, Jacq.; *Gum vernum*, *Elephila valerandi*, L.; *Pentstemon digitalis*, *Elephila hirsuta*, Benth.; *Scutellaria nervosa*, Ph.; *Eum.* Mx.; *Virgaleum*, L.; *Hydrophyllum appendiculatum*, Mx.; *Ellisia ambigua*, N.; *Polemonium reptans*, L.; *Fraseri*, Gray; *nata*, Ph.; *Trillium recurvatum*, Rk.; *Solid.* Kunth; *Uniola latifolia*, Mx.

Next, in the dry timbered land, immediately adjoining the prairie, we find

Delphinium tricarpa, Mx.; *Hypericum pyramidatum*, Ait.; *Claytonia virginica*, L.; *Oxalis*, L.; *Rhus aromatica*, Ait.; *Rhamnus lanceolata*, Ph.; *Psoralea floribunda*, N.; *Amorpha canescens*, N.; *Astragalus canadensis*, L.; *Tephrosia virginiana*, Pers.; *Desmodium sessilifolium*, T. & G.; *Baptisia leucantha*, T. & G.; *Sp.* *aruncus*, L.; *Gillenia stipulacea*, N.; *Rosa setigera*, *Unicera parviflora*, Lam.; *Liatris scariosa*, Willd.; *Kuhnia*

folium, L.; *Eupatorium altissimum*, L.; *Aster turbinellus*, T. & G.; *Aster Shortii*, Boot.; *Aster carneus*, Nees; *Aster longifolius*, N.; *Silphium integrifolium*, Mx.; *Echinacea purpurea*, Moench; *Actinomeris squarrosa*, N.; *Actinomeris bellanthoides*, N.; *Rudbeckia triloba*, L.; *Leptocoma brachypoda*, T. & G.; *Dodecatheon media*, L.; *Scymeria macrophylla*, N.; *Isanthus cernuus*, Mx.; *Pycnanthemum pilosum*, N.; *Rhiphila ciliata*, Raf.; *Scutellaria versicolor*, N.; *Phlox divaricata*, L.; *Calyptoglia spithamea*, Ph.; *Sabbatia angulata*, Ph.; *Gentiana quinqueflora*, Lam.; *Gentiana rubricaulis*, Schweinf.; *Gentiana alba*, Muhl; *Rumex altissimus*, Wood; *Parietaria pennsylvanica*, Muhl; *Orchis spectabilis*, L.; *Apocynum hymenale*, N. (rare); *Microstylis ophioglossoides*, N.; *Lilium illinoense*, Richard; *Cypripedium spectabile*, Swartz; *Cypripedium pubescens*, Willd.; *Melica mutica*, Walt.; *Festuca tenella*, Willd.; *Danthonia spicata*, Beau.; *Nabalus asper*, T. & G.

I now come to the prairies, the wild natural meadows, about the formation of which so much curious speculation has been entertained. Here we find some peculiar plants. I begin with the wet prairie.

Myosotis minimus, L.; *Viola delphinifolia*, N.; *Phaseolus paniculatus*, Benth.; *Ammannia humilis*, Mx.; *Ammannia latifolia*, L.; *Ludwigia polycarpa*, S. & P.; *Archemora rigida*, D. C.; *Vernonia fasciculata*, Mx.; *Solidago Riddellii*, Frank. (Henderson Co.); *Liatris pycnostachya*, Mx.; *Boitonia glaucofolia*, Her.; *Rudbeckia subtomentosa*, Ph.; *Silphium torbinacethum*, L.; *Helenium autumnale*, L.; *Cacalia tuberosa*, N.; *Cynthis virginica*, Torr.; *Centunculus minimus*, L.; *Murpesia rotundifolia*, Mx.; *Phlox maculata*, L.; *Asclepias sullivantii*, Eryelm; *Acerates longifolia*, Ell.; *Cypripedium candidum*, Muhl; *Melanthium virginicum*, L.; *Stenanthium angustifolium*, Gray, (Pike Co.) *Cyperus acuminatus*, Torr.; *Eleocharis compressa*, Bulliv.; *Scirpus debilis*, Ph.; *Scirpus atrovirens*, Muhl.; *Scirpus lineatus*, Mx.; *Fimbristylis spadiacea*, Vahl.; *Scleria trigloerata*, Mx.; *Carex Buxbaumii*, Wuhl.; *Carex monile*, Tuck; *Calamagrostis canadensis*, Beau.; *Hordeum jubatum*, L.

On the dry and rolling prairies, among others, we find the following species of plants:

Anemone cylindrica, Gray; *Viola pedata*, L.; *Linum Bootii*, Planchon; *Polygala loricata*, L.; *Oxalis violacea*, L.; *Petalostemon violaceum*, Mx.; *Petalostemon candidum*, Mx.; *Baptisia leucophaea*, N.; *Potentilla arguta*, Ph.; *Oenothera fruticosa*, L.; *Gaura biennis*, L.; *Mentzelia oligosperma*, N. (Pike Co.) *Hesperis hispida*, Ph.; *Eryngium yuccifolium*, Mx.; *Solidago missouriensis*, N.; *Silphium laciniatum*, L.; *Aster levigatus*, L.; *Aster aureus*, Lind.; *Aster serotinus*, Vent.; *Helianthus rigidus*, Desf.; *Helianthus grosseserratus*, Mart.; *Helianthus mollis*, Lam.; *Parthenium integrifolium*, L.; *Echinacea angustifolia*, D. C.; *Rudbeckia hirta*, L.; *Leptochys pinnata*, T. & G.; *Coreopsis tripteris*, L.; *Coreopsis palmata*, N.; *Antennaria dioica*, Gartner.; *Cirsium pumilum*, Spreng.; *Hieracium longipilum*, Torr.; *Troximon cuspidatum*, Ph. (rare); *Lobelia leptostachya*, D. C.; *Plantago pusilla*, N.; *Pentstemon pubescens*, Sol.; *Cnidos multifida*, Benth.; *Dipteracanthus ciliatus*, Nees; *Scutellaria parvula*, Mx.; *Phlox aristata*, Mx.; *Asclepias meadii*, Torr. (rare); *Acerates viridiflora*, Ell.; *Platanthera leucophaea*, N.; *Fimbristylis autumnalis*, R. S.; *Fimbristylis capillaris*, Gray; *Carex Richardsonii*, R. Br.; *Silene spaldingii*, Trin.; *Koeleria cristata*, Pers.; *Panicum paniculatum*, Ell.; *Sporobolus heterostachys*, Gray; *Aristida oligantha*, Mx.; *Lepturus paniculatus*, N.

In the sandy region east of the Illinois river in Cass and Mason Counties, and in similar soil east or west of the Mississippi river, some species appear to be almost entirely confined to it.

In this district of wet sandy soil, are to be found the following interesting species;

Trautvetteria ciliata, F. & M.; *Parnassia caroliniana*, Mx.; *Spiraea lobata*, Murr.; *Sanguisorba canadensis*, L.; *Rhexia virginica*, L.; *Dioidia teres*, Walt.; *Phyllanthus carolinensis*, W.; *Carex stellata*, Good; *Carex scariosa*, Sch.; *Equisetum limosum*, L.

In the dry sandy prairies of this region, I mention the following:

Erysimum arkansanum, ; *Oallirhoe triangulata*, Gray; *Polygala polygama*, Walt.; *Astragalus distortus*, K. G.; *Schrankia uncinata*, Walt. (Mo); *Opuntia Badnensis*, Engelm.; *Oenothera alba*, L. (Mo); *Gallium pilosum*, Ait.; *Chrysopsis villosa*, ; *Helianthus occidentalis*, Ell.; *Coreopsis lanceolata*, L.; *Hymenocappus scaberrimus*, L'Her.; *Artemisia drauncus*, Vides, Ph. (Mo); *Artemisia caudata*, Mx.; *Artemisia americana*, L.; *Phlox bifida*, Bk.; *Freiloria flor.* id.; *Monarda punctata*, L.; *Dracopis umbellata*, Mx.; *Euphorbia Geyerii*, Engelm.; *Oreocaulum capillatum*, Mx.; *Oreocaulum glandulosum*, L.; *Oreocaulum ellipticum*, N.; *Cyperus Schweinitzii*, Torr.; *Aristida stricta*, Mx.; *Aristida tuberosa*, N.; *Bouteloua hirsuta*, Sag.; *Bouteloua curtipendula*, Gray; *Panicum autumnale*, Des.

Some few interesting species have been observed by road sides, viz:

Erigeron divaricatus, Mx.; *Dysodia chrysanthemoides*, Lag.; *Artemisia biennis*, Willd.; *Cirsium lanceolatum*, Scop. (Adams Co.); *Plantago aristata*, Mx.; *Verbasicum blattaria*, L.; *Verbena stricta*, Vent.; *Verbena bracteosa*, Mx.; *Verbena angustifolia*, Mx.; *Cynoglossum officinale*, L.; (Mendon) *Solanum carolinense*, L.

I would be glad to see observations from other Botanists on other parts of this State, mentioning the rarer species of plants, or at least reporting such as have not before been known to inhabit the State of Illinois. And I hope it will be continued, until a full and complete Botanical survey be accomplished.

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