

Sept.-Oct. Volume 3 Number 4, 1988

July - Aug  
UPCOMING EVENTS

- August 25th, Thursday, St. Louis  
Regular Meeting at Wash-  
ington Un. Marshall Wagner  
to speak on "Plants that  
attract Butterflies".
- Sept. 13th, Tuesday KC Chapter  
regular meeting at Un. Ex-  
tension Bldg. 291 highway.  
Program TBA.
- Sept. 17-18th, Fall Board Meeting  
and Field Trip on the Eleven  
Point River. See page 2 for  
details.
- Sept. 22, Thursday, St. Louis.  
Regular Meeting. Geoff  
Beal N.D. will present a pro-  
gram on Mo. and American plants  
for health and herbal remedies.
- Oct. 11, Tuesday, KC Chapter  
Regular meeting at Un. Exten-  
sion Bldg. 291 highway.
- Oct. 27th, Thursday, St. Louis  
Regular meeting: Share your 10  
best photos of the summer of  
1988.

ANNOUNCEMENT FOR ARTISTS

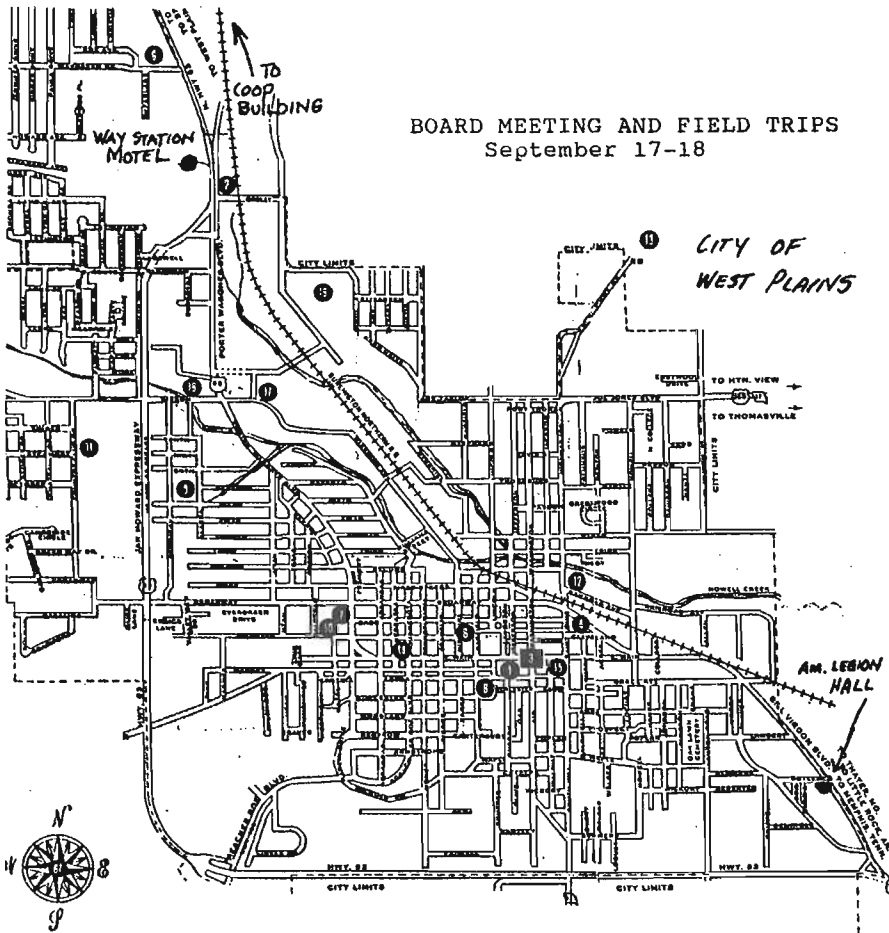
The Flora of Missouri Project seeks botanical artists to complete new pen-and-ink drawings for the revised edition of Steiermark's Flora of Missouri. Plans call for new illustrations of the 2600+ species of vascular flora in ca. 400 composite plates, to be completed over a four year period, beginning immediately.

We can presently pay \$100 per plate (each plate containing 5-8 species) and are seeking 3-4 artists to work on a per-plate basis. Artists should have some botanical know-

ledge (familiarity with flower parts, etc.) to facilitate communication with the project coordinator and should have access to a dissecting microscope to enable viewing of details for drawing (some accomodation may be reached for artists whose access to a microscope is limited). Artists will work with the project coordinator to illustrate those portions of each species important in its recognition and identification--this will usually amount to a view of the whole plant (or part of a larger plant), supplemented with magnified details of structures (such as flowers, fruits, or parts of leaves) critical to recognition of that species. As much as possible, we will try to supply fresh material of each species for illustration, but artists should be prepared to work from pressed specimens and/or photographs (slides).

We are looking for people who can capture the essence of a plant's appearance in a manner that will survive reduction. Original paste-up plates will be ca. 20 x 24 inches, but final page size of the book will only be ca. 7 x 10 inches. Reduction will be an important factor for both details and for whole-plant representation and will limit the amount of shading and detailed line work that is feasible.

Interested artists should contact the project coordinator: George Yatskievych, Flora of Missouri Project, Missouri Botanical Garden, PO Box 299, St. Louis, MO 63166 (tel. 314-577-9522). We will not require artists to submit a complete c.v. or portfolio. A letter of interest, including items such as pertinent qualifications, availability, etc., and some samples of botanical pen-and-ink work will suffice. Please do not send originals--prints, reprints, photostats or clean xerox copies will do. Remember that we are interested in art that will withstand great reduction, so choose your samples carefully.



BOARD MEETING AND FIELD TRIPS  
September 17-18

6:00 pm -

Dinner on your own. The motel has a nice restaurant and there are other eating places close by.

7:00 p.m. -

Board meeting. This may be followed by a program. At the American Legion Hall at the corner of Butler Street and Business 63 Highway.

Sunday

8:00 am -

Field trip to Tingler Lake in Howell County. We will meet in the motel parking lot. If time permits, we will also visit an Ozark prairie.

The Board meeting Saturday night will be held at the American Legion Hall at the corner of Butler Street and Business 63 Highway. This is near where 63 and business 63 intersect at the south edge of town. The easiest way to get there is to take Highway 63 from the Way Station south around the town to the Business 63 intersection past Walmart. Turn left onto Business 63 and go a couple of blocks to Butler Street. We hope to have a program after the Board meeting but the subject is not yet known. If there is no program, then we will gather in Sue Hollis' room at the Way Station for exchange of ideas and camaraderie.

On this field trip, we will explore hill and prairie habitats of the southern Ozarks in Oregon and Howell Counties. Meeting activities, lodging and dining will be in West Plains.

SCHEDULE

Friday

8:00 pm - Carl Hunter, who is author of a new book on Arkansas wildflowers, will talk about Ozark wildflowers. Meeting place is at the Howell-Oregon Electric Co-op Building about 5 miles north of the Way Station Motel on Highway 63.

Saturday

7:30 am - Canoe trip on the Eleven Point River from Greer crossing on Highway 19 to Turner's Mill. Leave the motel parking lot at 7:30 or meet at 8:30 at Don Woods Canoe Rental on Highway 160 in Alton. We MUST be on time.

1:30 pm - Picnic lunch will be provided at Turner's Mill on the south side of the river. There is a place to change clothes.

2:30 pm - Hike over the hill with emphasis on ferns. This is very steep hiking. Anyone who does not want to hike can explore the old mill and spring or walk along the river. If time permits, we may stop by Greer Spring also.

LODGING AND MEETING INFORMATION

Lodging is available at the Way Station Motel on Highway 63 just north of West Plains (417-256-4135); rates begin at \$24.00. We have not reserved any rooms in advance; please make your own reservations. The motel has a pool and the coffee shop opens at 6:00 am.

The Friday meeting will be held at the Howell-Oregon Electric Co-op Building about 5 miles north of the Way Station Motel on Highway 63.

The Saturday night meeting place is not yet determined but will be in the West Plains area.

Canoe rental is \$15.00 per canoe. Don Woods will take us to the river and pick us up. We can leave our vehicles at his place in Alton. He also has camping facilities with showers. Our dry clothes for hiking will be driven to the Turner's Mill area and waiting for us, along with a picnic lunch (no charge), when we arrive.

Reservations for the canoe trip are not necessary. Please let me know by card or call if you are going so enough food will be prepared (Sue Hollis, 816-561-9419). If you decide at the last minute, that's alright; we'll fit you in.

## PRAIRIE DAY AT CARVER

George Washington Carver National Monument will be hosting its second annual "Prairie Day" on Saturday, September 10, 1988 from 10:00 a.m. to 5:00 p.m.. This public education program was developed to portray the cultural heritage of 1860-1870's prairie life and to interpret the natural diversity of the prairie ecosystem. Many activities have been planned, presenting an opportunity for local organizations and individuals to participate in the event. Scheduled activities include:

- The Hillcrofters of Neosho, a group organized to preserve the old time crafts of the Ozarks, will demonstrate spinning, weaving, quilting and woodcarving.

- Linda Pyles of Carthage will tell humorous Ozark stories and Colleen Belk of Joplin will share stories of the civil war.

- Lorence Larson, naturalist at Prairie State Park, and Tom Toney, Missouri Department of Conservation, will conduct prairie ecology walks through the park.

- John and Debbie Woerheide of Rolla will demonstrate natural dyeing using native plants such as walnut and persimmon.

- Dulcimer music will be performed by Basil and Flora Cogbill and they will demonstrate how a dulcimer is made.

- Exhibits on prairie flowers and birds, prescribed burns, prairie women and clothing will be on display in the Carver visitor center.

Prairie Day at George Washington Carver National Monument provides each generation the opportunity to see and enjoy the beauty of the prairie, learn of the hardships their ancestors encountered in settling this part of Missouri and understand how this unique environment profoundly influenced the boyhood years of George Washington Carver and contributed to his later accomplishments as a scientist and humanitarian. The event is free to the public. To reach Carver National Monument, take US 71A from either Neosho or Carthage to Diamond.

At County Highway V, go west approximately two miles, then south one quarter mile. For additional information regarding Prairie Day, contact Park Ranger Shirley Baxter at 417-325-4151 or write George Washington Carver National Monument, P.O. Box 38, Diamond, MO 64840.

### EDGAR DENISON AWARD

The Missouri Botanical Garden is pleased to accept applications for the Edgar Dennison Award. Funds were donated some time ago by friends in honor of Edgar Denison, one of Missouri's most enthusiastic botanists, wildflower gardeners, and conservationists. Edgar is perhaps best known to amateur and professional botanists as the author of the popular field guide Missouri Wildflowers, which is scheduled for a fourth edition in 1989. The Garden anticipates presenting two or three awards ranging from \$100 to \$400 each.

This award is intended to stimulate field work relating to botanical research in Missouri by graduate students or especially qualified undergraduates. Projects may deal with ecology, physiology, genetics, systema-

tics, floristics, or almost any other scholarly aspect of Missouri plants and can focus on any vascular or nonvascular plant groups.

Students should submit a short letter including an outline of the proposed research and how the Edgar Denison Award would benefit their project. A sponsoring letter from a faculty advisor is also highly desirable. Applications should be received no later than August 31, 1988. Decisions by the Award Committee will be made by September 15, 1988. Please send all correspondence and applications to:

George Yatskievych  
Flora of Missouri Project  
Missouri Botanical Garden  
PO Box 299  
St. Louis, Missouri 63166-0299  
314-577-9522

### MLTNS New Building

Congratulations to Patrice Dunn, Director, and Tom Hein, Resource Manager, both MONPS members, on the opening of a new Nature Center at Martha Lafite Thompson Nature Center, Liberty. Patrice welcomed about 150-200 visitors to the Grand Opening on Saturday, June 4. MONPS volunteers manned tables of literature, helped obtain signatures for the Parks & Soil petition, and took wildflower walks during the day.

Special thanks to Judy and Vaughan Oetting, Judy Carver, Ona Gieschen, Felicia Baret, Arthur Benson, Carla Dods, Mike Currier and Paul Williams.

### Prairie Workshop

MONPS members joined Friends and staff of MLTNS and fell for the "Tom Sawyer" Hein ploy. We helped him plant prairie grass seed and prairie wildflower seed, about 20 different species in all. Found in a brief walk afterward through a prairie segment re-seeded last year: upright prairie coneflower, purple coneflower, blanket flower, goat's beard and wild petunia in bloom; prairie clover, from the Bates County salvage last fall, is forming flower heads.

--Paul Williams

### WANTED

The New York Botanical Garden is now installing a new native fern collection. It is based on the collection from the late Gordon Foster estate. They have woodland fern and ferns from the east west parts of the country. Needed are the rock ferns from the midwest area. If you have private property from which *Aspleniums*, *Cheilanthes*, *Notholeana* might be removed, please contact me. Only a small number of each are needed.

--Sue Hollis

## RAGGED ORCHID REVEALED

By Karen Haller and John Molyneaux

Mint Spring Seep. What a refreshingly attractive name as a site for botanical exploration -- especially during hot, dry weather.

So, April 19, with outside temperatures ranging up to 88° F, found us ankle deep in an acid seep in Gasconade County -- aware of the 10-15 Adam and Eve (*Aplectrum hymale*) plants discovered on a January trip and hoping to locate other orchids.

Success came in the form of a 12.6 cm. tall orchid stem and leaf combination with the leaf having 10 veins. This was enough of a find to draw us back to the same seep on June 14, the temperature again 88° F, to solve the mystery of the orchid species.

Once again we crossed the main creek and advanced through the heavy underbrush to arrive at the orchid site. Tucked under a sycamore (*Platanus Occidentalis*) tree and in full bloom stood a Ragged Orchid (*Habenaria lacera* var. *lacera*), 58 cm. high. Fourteen delicately fringed, greenish-white individual flowers graced the slender spike. Nine leaves of the stem measured from 3-13.5 cm. in length. Close by grew six more orchids, three of which were also blooming.

Nourishing water for the Green-fringed Orchids issued from an orifice on a slope west of the orchids and diverged around the sycamore to place the orchids on a virtual island.

Spotted Touch-me-not (*Impatiens capensis*) added vibrant color to the collage of plants nearby. Also in bloom were Black-eyed Susan (*Rudbeckia hirta*), Daisy Fleabane (*Erigeron annuus*) and Honewort (*Cryptotaenia canadensis*). The spectacularly tall Swamp Saxifrage (*Saxifraga forbesii*) was past its prime.

Mounds of moss, primarily Tree Moss (*Climacium americanum*) mixed with Catherinea (*Atrichum angustatum*) softened our footsteps through the vegetative maze. Christmas Fern (*Polystichum acrostichoides*) mingled with Sensitive Fern (*Onoclea sensibilis*), Hog Peanut (*Amphicarpa bracteata*), May Apple (*Podophyllum peltatum*) and Swamp Agrimony (*Agrimonia parviflora*). Partially submerged colonies of Watercress (*Nasturtium officinale*) completed our survey of nearby associated plants.

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## FERNS AWAY FROM HOME

In years past, I just happened to be driving by at the right time and place to participate in the annual field trip of the American Fern Society. This year I just couldn't drive by Berkely, California.

But even better! I signed up for a one week fern class at the Leelanau Education Center in Leelanau County, Michigan. That's on the northern end of the lower peninsula and on the shore of Lake Michigan. The class was taught by Joe Beitel, Assistant Curator for Ferns at the New York Botanical Garden. Joe is an enthusiastic person who checked out all the field trip sites before breakfast each morning to be sure we could find ferns. He is also an excellent teacher and is kind to little old ladies.

The course consisted of an hour or so of lecture each morning on life cycle, distinguishing features and habitat. Then we hopped in the van and visited several different sites. In the field, we found and identified ferns and other plants and had brief lectures on each fern and its habitat. We also learned how bogs and marshes are formed (pretty interesting when you are knee-deep in one), the geology of the area (glacial sand dunes), how the lake makes and takes land, effects of beaver and various types of succession. We got in just in time for supper and a shower and back to the lab for the evening to look at our materials under the microscope and complete field notes.

We studied the *Dryopteris* tribe with its many species and hybrids - when does a hybrid become a species? Joe has recently done a lot of work in reorganizing the *Lycopodiums* so we learned all their new names and how to identify them. Several *Equisetum* species were available for comparison (no, they don't all look alike). A large part of our study involved the *Botrychiums*. A number of newly described species have been found in the upper mid-west and we were able to see several of them. I was particularly interested in *Botrychium campestre* which has been found near the Missouri line in Iowa and should be found in Atchison County by some lucky Missouri botanist. Because of the drought, the *Botrychiums* were not in very good condition and a few were seen only in brown, crispy form. However, actually seeing them was invaluable because it is impossible to visualize these tiny plants from pictures and pressed specimens.

As always, I went a-pe over the lush stands of ostrich plume, lady fern, oak fern, *Dryopteris*, horsetails, etc. And as always, I had a good laugh when we walked two miles to see the only known plant in the county of a very rare fern -- *Asplenium platyneuron*!

We stayed in "rustic" cabins, ate in a dining hall (except for lunch - picnic on a beach), had a well appointed science classroom for laboratory and lecture and a van for field trips. The cost for the whole week was only \$350 and we made many friends and contacts. I would recommend taking such a course to anyone interested in natural history. Several schools offer such courses and anyone who is aware of one should provide material to the editors so we can let other members know.

--Sue Hollis

## MISSOURI HORSETAILS

Horsetails are rush-like plants with the cylindrical stems jointed, with a sheath ending in a fringe of teeth at each joint. The stems of the horsetails are hollow. The scientific name, Equisetum, is from the ancient name equus, horse and seta, bristle. Equisetum belongs to the Equisetaceae, or Horsetail Family.

There are four species of Horsetails, or Scouring Rushes, to be found in Missouri. One of the species has two varieties, while another is of doubtful status as an acceptable species.

One of the two common species is the Field or Common Horsetail, E. arvense, which has its fertile shoots appearing in early spring. These fertile shoots vary from whitish to pinkish-brown or yellow-brown. The spores are borne in terminal cone-like structures called strobili (singular, strobilus). The strobili in this species are long-peduncled, unlike the other three species, which are short-peduncled. Later, the sterile stems appear. They do not look at all like the fertile shoots in that they are much smaller, with lateral branches in whorls around the main stem. This species is often found along railroad tracks.

The second common species of horsetail in Missouri is the Winter Scouring Rush, Equisetum hymale. This species has two varieties. One variety has the teeth of most of the sheaths quickly falling, while the other variety has the teeth of the sheaths mostly persisting or falling off late in maturity. All the sheaths are ashy-gray in this species, and the strobili are short-peduncled, with the peduncle at most only slightly exceeding the subtending sheath.

The third species is the Smooth Scouring Rush, E. laevigatum. This species is found infrequently in Missouri as compared with the first two species. There is a record of its having been found in St. Louis Co. but otherwise the counties where it has been found are not in the St. Louis area. At least the upper sheaths of this species are green or pale green, while the strobili are short-peduncled as in E. hyemale.

The fourth species is the Kansas Scouring Rush, E. kansanum. Some botanists accept this as a distinct species, while others combine it with the last species, E. laevigatum. It seems as if plants with annual rather than evergreen stems have been classified as E. kansanum. This species, if it is considered to be a distinct species, is known in Missouri only from St. Louis, Polk and Greene Counties.

The siliceous deposit gives to the shoots of horsetails a harsh texture, and on this account the plants were formerly

used for cleaning and polishing metal utensils and given the name "scouring rush". The horsetails grow for the most part in moist locations and are frequently found in poorly drained agricultural land. Hay containing considerable quantities of Equisetum is known to be injurious to livestock.

by Art Christ

PERSHING STATE PARK, 2300 Acres  
MONPS Field Trip, Linn County  
Saturday, June 4, 1988

Pershing State Park contains the largest remaining wet prairie in the northern half of the state of Missouri. Nearly 1,000 acres of wet prairie, marsh, wet bottomland forest, shrub swamp and upland forest provide suitable habitat for the venomous Massasauga rattlesnake (Sistrurus catenatus). Deer, coyote, raccoon and squirrel also inhabit this pleistocene glacier-flattened land.

Locust Creek periodically overfills its channel, causing water to spread over the surrounding land, inundating it with two to six feet of muddy water -- usually from November to May.

Fortunately for our enthusiastic band of MONPS members, the floodwaters had subsided, leaving a solid, dry surface for our exploration.

Jane Lale, Superintendent of Pershing State Park, and Ken McCarty, Resource Steward for the Missouri Department of Natural Resources, led us through the wet bottomland forest and on to the wet prairie.

A slight divergence from the designated route occurred when a young fawn was discovered curled up on the forest floor.

Gracefully slender and reflexed leaves of Carex muskingumensis enhanced the wooded area. Carex lupulina, C. rosea, C. grayii and C. shortiana were among the other sedges recognized by Doug Ladd.

For those members most interested in other plant families, the highlight of the trip was the disclosure of two Pale Green Orchids (Platanthera flava), one in pale greenish bloom and the other in bud. Pollination of this orchid is by many species of small moths and by mosquitos. Mosquitos!

Shortly thereafter, a stranded, 8 cm. high mermaid was encountered -- left high and dry on the bed of an area normally wetland. It was Mermaid Weed (Proserpinaca palustris).

River Bulrush sedge (Scirpus fluviatilis) nearby stood five feet high and well-armed with sharply serrate leaf edges -- sharp enough to inflict a "paper cut" type wound to human skin.

Southern Blue Flag (*Iris virginicus* var. *Shrevei*), all four inches of *Tradescantia brachyotata*, and a wealth of Moneywort (*Lysimachia nummularia*), glowing golden in the sunshine, especially excited the photographers.

Young Chad Doolin favored the wooden steps and platform of the Overlook.

Lunchtime along the shore of Locust Creek gave time for completion of a plant list, which follows this review.

--Karen Haller

PLANT LIST FROM PERSHING STATE PARK

Ruellia strepens	Erigeron annuus
Lysimachia nummularia	Fraxinus pennsylvanica
Amphicarpa bracteata	Cuscuta sp.
Elymus virginicus	Carex amphibola var. turgida
Cryptotaenia canadensis	Solanum carolinense
Sanicula gregaria	Tradescantia ohioensis
Polygonum virginianum	Rosa setigera
Rudbeckia laciniata	Carex davisi
Ambrosia trifida	Scirpus lineatus
Laportea canadensis	Cassia fasciculata
Menispermum canadense	Penstemon digitalis
Smilax scirrhata	Pycnanthemum tenuifolium
Acar negundo	Eryngium yuccifolium
Carya ovata	Germacium yuccifolium
Symphoricarpos orbiculatus	Glyceria striata
Phlox divaricata var. Laphamii	Iris virginica
Viola sororia	Juncus interior
Arisaema Dracontium	Galium obtusum
Parthenocissus quinquefolia	Apocynum sibiricum
Thalictrum sp.	Sium suave
Viola pennsylvanica	Veronicastrum virginicum
Dioscorea villosa	Potentilla simplex
Quercus macrocarpa	Platanthera flava
Polygonum scandens	Rudbeckia subtomentosa
Galium concinnum	Proserpinaca palustris
Uniola latifolia	Scirpus validus
Silene stellata	Calamagrostis canadensis
Polygonatum commutatum	Solidago altissima
Festuca obtusa	Asclepias sullivantii
Carex muskingumensis	Phalaris arundinacea
Galium triflorum	Iris virginicus
Carex lupulina	Liatris pycnostachya
Cornus drummondii	Tradescantia bracteata
Smilax tamnoides var. hispida	Rumex altissimus
Carex rosea	Oxalis stricta
Xanthium strumarium	Erechtcharis obtusa
Leersia oryzoides	Bromus racemosus
Alisma plantago-aquatica	Veronica peregrina
Carex grayii	Cirsium discolor
Parietaria pennsylvanica	Penstemon digitalis
Pilea pumila	Lysimachia nummularia
Ambrosia artemisiifolia	Cicuta maculata
Salix nigra	Iodanthus pinnatifidus
Cephalanthus occidentalis	Silphium perfoliatum
Populus deltoides	Equisetum arvense
Eupatorium purpureum	Taraxacum officinale
Sambucus canadensis	Carex lanuginosa
Rubus pennsylvanicus	Plantago rugelii
Quercus prinoides	Juglans nigra
Geum canadense	Juncus tenuis
Quercus bicolor	Apios americana
Ranunculus abortivus	
Carex shortiana	

PLANTS IDENTIFIED FROM LOWRY MARSH  
(Not all seen on June field trip)

Achillea Millefolium  
Agrimonia parviflora  
Alisma plantago-aquatica  
Apios americana  
Asclepias incarnata  
Asclepias sullivantii  
Asclepias verticillata  
Aster novae-angliae  
Aster parviceps  
Aster pilosus  
Aster simplex  
Bidens polylepis  
Boltonia asteroides  
Cacalia tuberosa  
Carex frankii  
Carex lanuginosa  
Carex lacustris  
Carex lupuliformis  
Carex lupulina  
Carex stipata  
Carex versicarpa var. monile  
Cephalanthus occidentalis  
Cicuta maculata

Cornus obliqua  
Cyperus spp.  
Erechtites hierocifolia  
Eryngium yuccifolium  
Eupatorium perforiatum  
Festuca  
Fraxinus pennsylvanica  
Gerardia sp.  
Gaura parviflora  
Gentiana andrewsii  
Gleditsia triacanthos  
Helenium autumnale  
Helianthus grosseratus  
Hypericum mutilum  
Hypericum perforatum  
Impatiens capensis  
Iris virginica  
Lemna trisulca  
Lippa lanceolata  
Liatris pycnostachya  
Lobelia inflata  
Lobelia siphilitica  
Ludwegia alternifolia  
Lycopus americanus  
Lysimachia ciliata  
Lythrum alatum  
Leersia sp.

Lowry Marsh

Mentha arvensis  
Mimulus ringens  
Oenothera biennis  
Panicle lanuginosum  
Parthenocissus quinquefolia  
Penthorum sedoides  
Phalaris arundinacea  
Polygonum coccineum  
Polygonum Hydropiper  
Polygonum hydroperoides  
Polygonum pensylvanicum  
Poa pratensis  
Pondetaria cordata  
Purnella vulgaris  
Pycnanthemum tenuifolium  
Ranunculus flabellaris  
Ratibida pinnata  
Rosa multiflora  
Rudbeckia subtomentosa  
Ruellia humilis  
Rumex spp.  
Salix interior  
Sagittaria latifolia  
Scirpus atrovirens  
Scirpus cyperinus

Scirpus validus  
Scirpus sp.  
Scirpus fluviatilis  
Scutellaria lateriflora  
Senecio Aurens  
Silphium laciniatum  
Silphium perfoliatum  
Sium suave  
Solidago altissima  
Solidago graminifolia  
Sparganium eurycarpum  
Spartina pectinata  
Spirodella polyrhiza  
Stachys tenuifolia  
Strophostyles helvola  
Symphoricarpos orbiculatus  
Teucrium canadense  
Trifolium pratense  
Typha latifolia  
Ulmus americana  
Verbena hastata  
Viola papilionacea  
Veronica fasciculata  
Veronicastrum virginianum  
Carex cristatella  
Lemna minor  
Lysimachia thysiflora  
Cannabis sativa

PLANTS IDENTIFIED FROM HELTON PRAIRIE  
(Not all seen on June field trip)

Amorpha canescens  
Andropogon gerardii  
Andropogon scoparius  
Apocynum cannabinum  
Asclepias hirtella  
Asclepias tuberosa  
Aster azureus  
Aster ericoides  
Aster pilosus  
Aster novae-angliae  
Baptisia leucantha  
Baptisia leucophaea  
Ceanothus americanus  
Coreopsis palmata  
Coreopsis tripteris  
Desmodium canadense  
Echinacea pallida  
Elymus canadensis  
Eryngium yuccifolium  
Eupatorium serotinum  
Euphorbia corollata  
Fragaria virginiana  
Gentiana puberula  
Helianthus grosseserratus  
Hypoxis hirsuta  
Lespedeza capitata  
Liatris pycnostachya  
Monarda fistulosa  
Oxalis violacea  
Panicum virgatum  
Panicum canadense  
Petalostemon purpureum  
Phlox pilosa  
Potentilla simplex  
Prenanthes aspera  
Pycnanthemum tenuifolium  
Ratibida pinnata  
Rosa carolina  
Rudbeckia hirta  
Salix humilis  
Scleria triglomerata  
Silphium integrifolium  
Silphium laciniatum  
Solidago rigida  
Solidago missouriensis  
Sorghastrum nutans  
Spartina pectinata  
Sporobolus heterolepis  
Veronicastrum virginicum  
Veronica fasciculata  
Zizia aurea

Agrimonia parviflora  
Apios americana  
Asclepias syriaca  
Aster simplex  
Bidens polylepis  
Cicuta maculata  
Cornus drummondii  
Cirsium discolor  
Coreopsis palmata  
Coreopsis tripteris  
Desmodium canadense  
Echinacea pallida  
Elymus canadensis  
Eryngium yuccifolium  
Eupatorium serotinum  
Euphorbia corollata  
Fragaria virginiana  
Gentiana puberula  
Helianthus grosseserratus  
Hypoxis hirsuta  
Lespedeza capitata  
Liatris pycnostachya  
Monarda fistulosa  
Oxalis violacea  
Panicum virgatum  
Panicum canadense  
Petalostemon purpureum  
Phlox pilosa  
Potentilla simplex  
Prenanthes aspera  
Pycnanthemum tenuifolium  
Ratibida pinnata  
Rosa carolina  
Rudbeckia hirta  
Salix humilis  
Scleria triglomerata  
Silphium integrifolium  
Silphium laciniatum  
Solidago rigida  
Solidago missouriensis  
Sorghastrum nutans  
Spartina pectinata  
Sporobolus heterolepis  
Veronicastrum virginicum  
Veronica fasciculata  
Zizia aurea

Many thanks to Gregory Gremard for leading the trips to Lowry Marsh and Helton Prairie and for the plant lists from each.

Thanks to Ken McCarty for setting up the field trips and getting us to them.



stiff Gentian  
*Gentiana quinquefolia*

June 12 Trip

Several members drove north on Sunday to see some of the few prairie remnants in northwest Missouri.

We stopped first at an abandoned archery range between Fairfax and Corning to check a report of white lady-slipper orchids, but found none. Linda Ellis thinks, from the precise location noted in a letter, that perhaps Jack-in-the-pulpit or purple trillium were mistaken for orchids. The land has fine woodland habitat with many early spring species and fine trees.

We drove on to Tarkio Prairie Natural Area where Kent Macy, SCS agent for Nodaway County, joined us for the hike. No sign was found of the White Fringed Prairie Orchid, Platanthera praeclara (formerly Habenaria leucophaea), which was seen last year. Our hope is that it has gone dormant because of the drought, and that it has not been destroyed by a late burn this past spring.

Tarkio Prairie has an unusual variety of prairie plants. Butterfly weed and white wild indigo are in abundant bloom. Lead-plant, compass plant, prairie clovers, and liatris are thriving. Coneflowers, prairie sunflowers, wild larkspur, bird's-foot trefoil, flowering spurge, and coreopsis were found. Prairie grasses are greener than most other Atchison County vegetation. A population of western wheat grass is growing near the former house site and escaped motherwort is blooming near the creek.

This is one of the few remaining acreages of native prairie that survives from what is estimated to have been 453 square miles of prairie in the county, including 90 square miles of Missouri River floodplain prairie.

Part of the group came back by way of Wilcox and examined a prairie glade on the farm of Nellie J. Williams, relative of a member. Kent Macy is of the opinion that this 2-5 acre glade has not been disturbed much. He thinks that such plants as Indian grass, little bluestem (or broomsedge?), prairie cat's-foot, hoary or Pursh's plantain, bush clover, spiked lobelia, blue-eyed grass (not found this year), tall dropseed and perhaps Scribner's panic grass are among the few plants of the species that survive in the county from native populations that once covered 707 square miles. It is known that the land has been grazed, and family members say all of the field has been cultivated at one time or another. But no species such as Kentucky bluegrass are found in this micro-habitat. No rare species were found.

In spite of the dryness, and the naturally dry condition of the glade, the Indian grass is green and growing as little else is.

Two members drove through the KCI prairie parkway and found flowers in bloom.

Special thanks to Linda Ellis for her expertise and knowledge of the Tarkio Prairie and for leading the trip. Thanks to Kent Macy for his expertise in grasses and prairie.

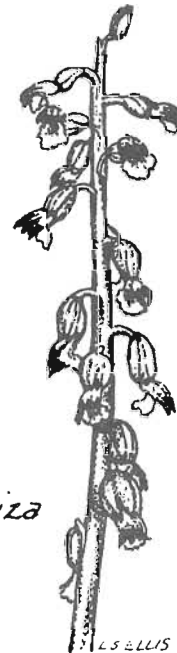
May 10 Trip

Four members drove to Pettis County to see private and public prairies including Paintbrush and Friendly Prairies. In truth, the private prairies had more flowers.

One prairie is known to have been hayed for more than 90 years. In mid-May the paint brush was flowering everywhere. Some pale cream and almost crimson varieties were found. Blue-eyed grass in at least three different color varieties was also widespread. About 40 prairie plants were identified and listed. A recently seeded field of prairie restoration was also walked.

Many thanks to the owner, a member, for making the trip possible.

The public prairies are quite accessible. Paint Brush Prairie had some bloom. It is being managed for prairie chickens. Meadowlarks are also numerous and a clutch of eggs was found near the entrance.



Late Coral Root Orchid  
*Corallorhiza odontorhiza*