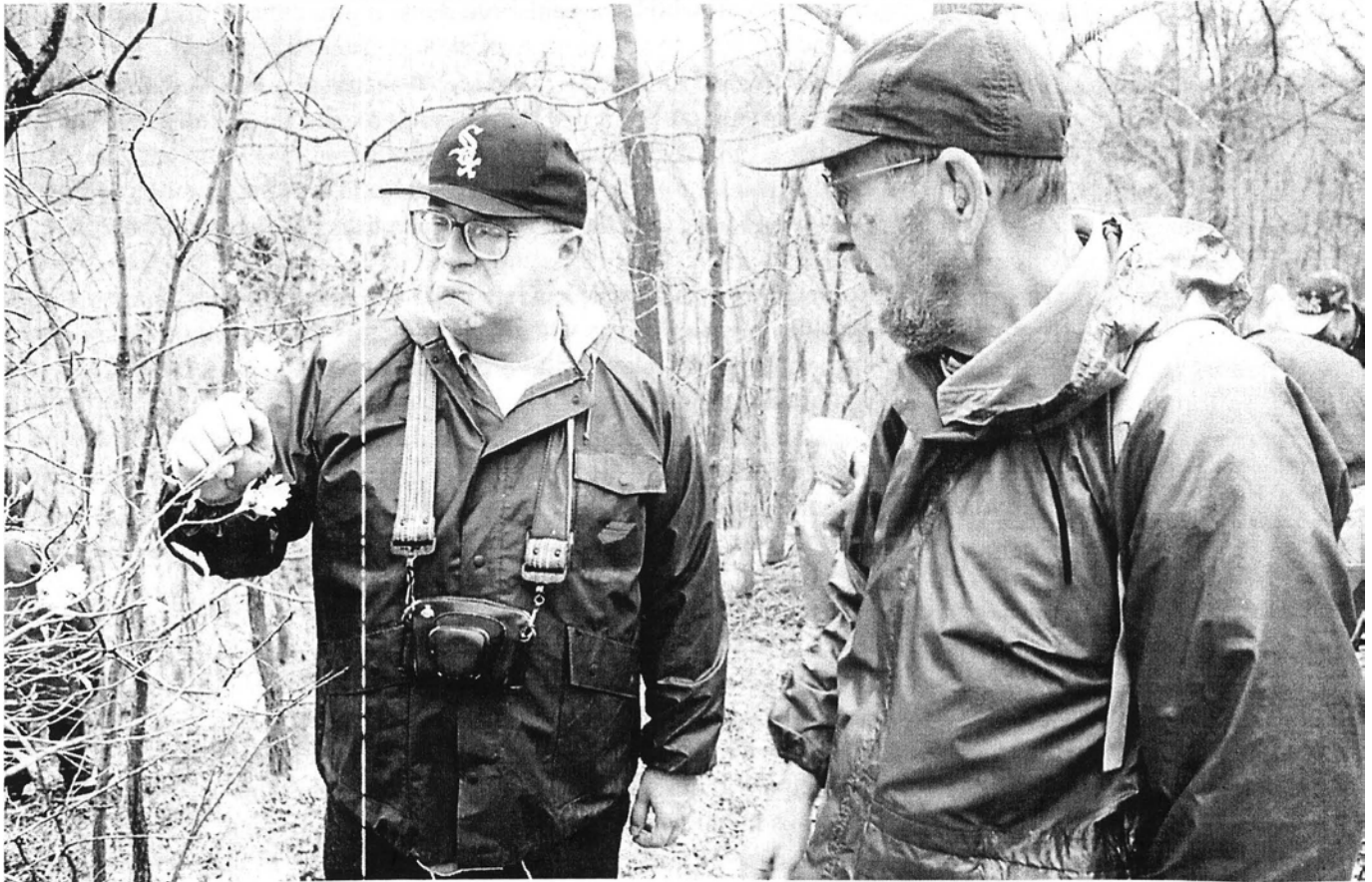


Iowa Native Plant Society

May 1996

Newsletter

Vol. 2 No.2



Not a sweet look

John Stoops/The Hawk Eye

Burlington native Tom Lammers of Chicago, left, gives a honeysuckle bloom the once-over with John Foss of Burlington during the Spring Wildflower Hike Saturday at Starr's Cave State Preserve. About 25 people participated in the hike that included tours of wooded bluffs, goat prairies and bottomland forests. Lammers, who works for Chicago's Field Museum of Natural History, has written a flora of the preserve.

Photo and caption used by permission of The Hawk Eye, Burlington, and brought to our attention by Tom's mother, Mrs. Bob Lammers of Burlington.

Starr's Cave Fieldtrip Report

by Christine Kirpes

Ah, spring! The time when plant enthusiasts' thoughts turn to ephemerals. Our Starr's Cave trip was attended by 25-30 hardy souls on an unseasonably cold April day. Typically, there were a few comments such as, "in another week the weather would have been better". I must reply that it didn't rain on us, and seeing the snow trillium (*Trillium nivale*), even if slightly past full glory, made it worthwhile, especially if, like me, you have had a severe case of spring fever! Of course, our group's usual congeniality at lunch was hampered a bit by the closed nature center—over half of the shivering enthusiasts ate in their parked cars.

We all enjoyed our leader, Tom Lammers, who proved to be very knowledgeable about the many interesting ephemerals and other flora he pointed out. In the morning we enjoyed beautiful hillside cascades of abundant dutchman's breeches (*Dicentra cucullaria*)*, a patch or two of false rue anemone (*Isopyrum biternatum*), scattered bloodroot (*Sanguinaria canadensis*), occasional rue anemone, toadshade (*Trillium*

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Greetings Fellow Plant Enthusiasts

Just as winter turns to spring, our group's buds are opening. We have really sprouted since the February newsletter. Here are updates on membership and publicity.

Membership-INPS officers/organizers are breathing a collective sigh of relief due to the great response during the past few weeks. We are already "in the black", with enough funds to cover further 1996 newsletters and mailings, as well as incidental expenses for our upcoming first annual meeting. Part of our plan for this annual meeting is to present special "charter member" certificates to all who have paid 1996 dues. If you are still thinking about joining, this is an added incentive to do so before August!

Publicity-Plans are also in the works for a table-top display and updated brochures that will be available for events, conferences, and meetings to gain further exposure for INPS. We will definitely bring it to the Midwest Environmental Education Conference in Cedar Falls, August 15-17.

- Call me if you have ideas, experience in this type of display, or would be willing to help create it.
- We will also need to organize people to sit at the table (anyone else going to MEEC?).
- Please let us know of other events where you think this display would be appropriate.
- Copies of any photographs taken at INPS field trips would be welcome for this project, as well as for historical purposes.

We were pleased by the visit of a representative of The Hawk Eye newspaper to our April field trip! Their photo appears elsewhere in the newsletter.

Christine Kirpes, INPS President

Sylvan Runkel State Preserve Dedication

In conjunction with the Loess Hills Prairie Seminar, May 31-June 2, the Sylvan Runkel State Preserve will be dedicated. This preserve will be in Monona Co., northeast of Onawa in the Loess Hills Wildlife Area, near the site of the Loess Hills Prairie Seminar. Sylvan Runkel was an active participant in the Seminar for many years and it is appropriate that the 330-acre preserve named in his honor should be so near each year's activities.

"Sy", as he was called by all who knew him well, was one of our premier natural historians and conservationists, not just of the current generation but of all of Iowa's history. He spent more than 40 years in a career with the federal government, mostly in the Soil Conservation Service. But most remember him for his efforts "after-hours" and after retirement, which continued nearly to the time of his death in early 1995. Sy's influence reached many people through his co-authoring of *Wildflowers of Iowa Woodlands* and *Wildflowers of the Tallgrass Prairie* in the 1980s with Alvin Bull and Dean Roosa, respectively. His activities resulted in numerous awards; Iowa Conservationist of the Year, Federal Civil Servant of the Year, Iowa Conservation Hall of Fame, The Nature Conservancy's Oak Leaf Award, and The Silver Beaver Award from the Boy Scouts of America, to name just a few. Yet anyone who has enjoyed the privilege of being on a Sy-led field trip felt that his greatest award/reward was spreading his passion for Iowa's natural beauty. Borrowing the line from Keats - "A thing of beauty is a joy forever..." - Sy endeavored in conservation and education to truly make it remain so.

Activities planned for the dedication begin on the evening of May 31 with John Pearson, plant ecologist with the Iowa Department of Natural Resources (DNR), speaking about Iowa's preserve system at the Seminar's opening ceremony at Onawa High School. The Preserve dedication ceremony will be at 12:30 on Saturday, with the following speakers: Marion Pike, former commissioner of the Natural Resources Commission (formerly Soil Conservation Service); Larry Wilson, Director of the DNR; Jean Prior, geologist with the DNR's Geological Survey Bureau and author; Connie Mutel, author of a natural history of the Loess Hills; and Bruce Hopkins, Executive Officer of the Western Hills Area Education Agency. For further information, contact Larry Benne at the Western Hills AEA, (712) 274-6083.

INPS May 1996

Starr's Cave Continued from page 1

sessile) in bud, spring beauty (*Claytonia virginica*), and a bit of hepatica (*Hepatica americana*). Fragile fern (*Cystopteris fragilis*), stands of scouring rush (*Equisetum spp.*), musclewood (*Carpinus caroliniana*), and others were seen on the streamside trail. This rich woodland became even more enchanting when we found the first hillside cave, in which you could picture yourself and your family living in prehistoric times (with chartreuse lichens, fossilized crinoids, and bam swallows!).

Traveling into the upland areas, we noted the scattered clouds of serviceberry (*Amelanchier arborea*) in full bloom, a Jacob's ladder (*Polemonium reptans*) in bud, and more ephemerals. There were already several interesting finds growing on the hill prairies: the early-blooming woodland sedge *Carex pensylvanica*, pussy toes (*Antennaria plantaginifolia*), reindeer moss (*Cladonia spp.*) and other lichens with their cuplike fruiting bodies.

After lunch, we drove across Flint Creek and hiked downward. Additional hill prairie flora included leaves of the prairie violet (*Viola pedatifida*), bastard toadflax (*Comandra*

umbellata), and hoary puccoon (*Lithospermum canescens*). Nearby we felt the square stems of several rare blue ash (*Fraxinus quadrangulata*). Later on, Devil's Kitchen, a small walk-through cave, made the trail unique, although, had it lived up to its name, we would have been warmed a bit more on passing through!

On the streamside cave trail we saw a large patch of bluebells (*Mertensia virginica*), native honeysuckle (*Lonicera sp.*), and a few early trout lilies (*Erythronium albidum*). The entrance to Starr's Cave itself is at least 20 feet above the trail in a vertical bluff. Luckily, a metal staircase made access and exploration possible, unlike in past times, when, as Tom related, a leaning log beckoned only the most adventurous! Amazing how that narrow fissure a thousand feet into the bluff gets so dark after several yards. Next time, one of us has got to remember to bring a flashlight!

* These flowers have been officially renamed "grasshopper shorts" by my children, who were thrilled to explore this preserve, especially the caves!

Deer Park/Eagle City Fieldtrip

by Christine Kirpes

For our second spring 1996 field trip we ventured out on another cold morning. This one, to our relief, warmed up to a comfortable level around lunchtime. Our morning hike would have seemed colder if not for the warmth of our delightful leader. Shirley Shirley shared several special projects and places with us. First, we toured the prairie landscape project for the welcome center at Deer Park, in Eldora, which lies on the west side of the Iowa River across from Pine Lake State Park. The center is a restored train station, in front of which, two semicircular tiers of prairie plantings have been completed. We looked with interest at the early blooming species which included pasque flower (*Anemone patens*) and clove currant (*Ribes odoratum*). This site is worth a stop if you're traveling in the area later in the season, when the full effect of the coordinated flower colors sweeping across the center are evident. This project has had much educational value from the beginning; a group of students helped with many aspects including fundraising as well as the actual planting.

From the welcome center, we headed into the adjoining park, which Shirley has studied intensively. We enjoyed finding many of the 30 species in her self-illustrated park guide, as well as a few others new to her. Some of the highlights were the snow trillium (*Trillium nivale*) still hanging on to its blooms beside a few trees, abundant rue anemone (*Thalictrum thalictroides*), some jelly fungus, a yet-unidentified bedstraw (*Galium sp.*), and as we traveled down into the rich ravine bishop's cap (*Mitella diphylla*), wild leek (*Allium tricoccum*),

jack-in-the-pulpit (*Arisaema triphyllum*), cut-leaved toothwort (*Dentaria laciniata*), wild sarsaparilla (*Aralia nudicaulis*) and columbine (*Aquilegia canadensis*) in bud, and blue cohosh (*Caulophyllum thalictroides*).

We then caravanned to Shirley's home to study her converted parking-lot roadside prairie, which was beginning to emerge. This energetic woman is also creating a lovely fish pond with patio which was inspiring. We enjoyed a warm and lively lunch break on our hostess' back porch, then decided to explore another site called Eagle City, which is also a part of the Iowa River Greenbelt. This proved to be wise as we walked a pleasant trail surrounded by hillsides of blooming ephemerals on one side, with the river on the other (O.K., and a few thorny toothache trees (*Xanthoxylum americanum*) along the way). We found the purpose of this hike at the end of the trail, where we were greeted by hundreds of sunny blooms of the marsh marigold (*Caltha palustris*). This boggy site (I have a goo-covered shoe to prove it) could also prove interesting later in the season as more species appear. On the way back, the scenery inspired Bill Thomas to repeat a serenade of the Dutchman's breeches, a sweet song learned in his youth (an event which I somehow failed to relate in my account of the last trip). On crossing the stream near the parking area, we noticed a patch of watercress (*Nasturtium officinale*). The identity of this tasty plant was confirmed by a few of our braver members on the trip.

As I remember some of the spectacular scenes viewed during our trips since last year -- the Backbone, the horseshoe waterfall at Mossy Glen, cave sites at Bixby and Starr's Cave

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Leafy Spurge

submitted by Sheri Huerd

As one drives through northwestern Iowa in early June, bright yellow flowers nod along the roadsides, their heads swept by the winds of cars, their seeds spread up into pasturelands nearby... carefully tended patches of chartreuse flowers bloom throughout the summer in lawns around Sioux City... small yellowish flowers remain unmown to brighten the edges of Lake Okoboji... What is this ubiquitous plant? Wildflower or weed, it definitely has one name-INVADER!

Leafy spurge (*Euphorbia esula* L.) is a noxious exotic perennial weed found throughout the northern Great Plains. It thrives primarily in untilled, non-cropland habitats in a wide range of soil types varying from heavy clays to sand. Infested areas include abandoned fields, pastures, rangeland, woodland, roadsides, and waste areas. This aggressive plant destroys plant and animal communities by displacing native plant species and animal habitat. Additionally, leafy spurge is unpalatable and poisonous to many animals, including cattle, due to plant chemicals.

Originally from Eurasia, leafy spurge arrived in North America around the turn of the 19th century, from ship ballast in the East and in grain seed stock brought by newly arrived Russian Mennonite settlers in Canada. Dispersal occurred along routes of travel and later along railroad rights-of-way by trains and by birds, humans, and animals. In farming communities, leafy spurge was spread in fields by cultivation, harvesting, and threshing practices. Herbarium records document Iowa's earliest leafy spurge population location in Henry County in 1899; a Story County population documented in 1907 along a railroad right-of-way is still present today.

Leafy spurge can easily be seen among Iowa's spring-time flora. Shoots appear by the end of May and continue on to first frost. Flowers are small and are borne in an umbel-like terminal inflorescence called a cyathium. This cyathium is a distinctive yellow-green color that makes leafy spurge easily identifiable in the field. Flowers are pollinated mainly by insects; the first seeds are produced in a capsule by mid-July. As the capsule dries, the seeds ripen and break forth with explosive force such that they are expelled up to 15 feet away from the parent plant - on a warm, dry July day in a field of spurge, this expulsion sounds like popping corn. Seed production is highly variable in the field but may be from 24 to 3,400 pounds per acre, and seed viability may last up to eight years, a combination that produces a long-lived, abundant seedbank that adds to leafy spurge's invasive success.

If its seed success were not enough, leafy spurge has an extensive and formidable root system. Like most perennial

roots and rhizomes, these have vigorous growth and are capable of regeneration. Root buds are produced from which new growth centers can be established. This massive root system provides for an enormous reservoir for food storage that aids in its persistence and is one of the main concerns in spurge control.

Control of leafy spurge comes in several forms. Cropping techniques have slowed spurge infestations in agriculturally productive areas. In recent years chemical control has been used to control leafy spurge, but while success has been met, chemical over-use, lengthy control periods, and negative environmental effects are a concern. In large infestations this can be a costly and ineffective solution.

Biological control of leafy spurge may be key to its control. Researchers have traveled to Eurasia (where leafy spurge is not considered an invasive species) and collected insects that may be used in the United States. Although fear that biocontrol insects will affect other species in the genus *Euphorbia*, insects are carefully screened before release. A number of insects have shown some promise for controlling leafy spurge, mainly flea beetles (*Aphthona* spp.), but *Spurgia esulae* and *Oberea erythrocephala* are also having some success.

A statewide survey conducted in 1992-1993 verified 26 Iowa counties with leafy spurge infestations. These counties include: Allamakee, Black Hawk, Bremer, Buena Vista, Carroll, Cherokee, Clay, Clayton, Crawford, Delaware, Dickinson, Fayette, Hamilton, Harrison, Iowa, Mills, Monona, Plymouth, Sioux, Webster, and Woodbury. Biocontrol agents, mainly of the *Aphthona* spp., were released in seven counties by USDA personnel. As insect populations increase at these sites, they will

be distributed through the region to control spurge infestation and spread.

Prevention of spread and control of existing populations of leafy spurge are necessary. As a primary noxious weed in Iowa, each county weed commissioner, by law, must control and destroy the populations in each county, including populations within city limits, in abandoned cemeteries, and on street and highway rights-of-way; in addition, the commissioner is also responsible for the notification of landowners if populations on private property are not being controlled.

The Loess Hills are a particularly susceptible area because large segments are pastured and the native species cannot compete with leafy spurge. The sandy soils, deep slopes, and large areas of infestation discourage chemical use because of water contamination and destruction of native vegetation. Prairie remnants, cemeteries, and all waterways in Iowa are also susceptible and sensitive to control.

Do your part and report infestation of leafy spurge to your county weed commissioner!



from *Flora of Missouri*,
Steyermark, 1963

What's on the Horizon...INPS Events

Saturday, June 22. Greiner Family Preserve and Wildcat Den State Park, Muscatine County. Greiner Family Preserve is a wonderful prairie and wetland complex containing a diverse assemblage of plants, including the rare meadow beauty (*Rhexia virginica*). We will spend the morning exploring this site. After lunch, plans are to travel to Wildcat Den State Park to view the woodland wildflowers there, including a reported 25 varieties of ferns. Jim Scott will lead these field trips, and will be ably assisted by Louise MacEachern, Toni Hesseltine and Mary Singleton. Meet at 10 AM at the Saulsbury Recreation Area nature center, and bring a sack lunch.

Directions: From Hwy 61 in Muscatine, take Mulberry Rd north several miles to Saulsbury Road. Take this road west to the Saulsbury Recreation Area.

Saturday, July 20. Waubonsie State Park, Fremont County. The park is in the southern end of the Iowa Loess Hills, bordered by the Missouri floodplain on the west. Hiking paths along the narrow ridgetops offer excellent views. Participants in this INPS event will have the opportunity to see plants with distinct western (e.g. yucca) and southern (e.g. paw paw) flavors. Waubonsie is home to state endangered *Penstemon cobaea*, as well as the Great Plains skink and the zebra swallowtail. Furthermore, trip leaders Lois Tiffany and George Knaphus of Iowa State University (co-authors of *Mushrooms and Other Fungi of the Midcontinental United States*) promise to show us a variety of mushrooms. Meet at 10 AM at the entrance to the park campground, and bring a sack lunch.

Directions: Watch for state park signs along Hwy 2 south and west of Sidney.

Saturday, August 24. INPS ANNUAL MEETING, Doolittle Prairie State Preserve, Story County. Morning business meeting at McFarland Park just north of Ames. Participants will meet at McFarland starting at 9 AM to mingle, then the business meeting will take place from 10 AM until noon. Following lunch, we will embark on an afternoon field trip to Doolittle State Preserve. Doolittle is one of the premier prairie pothole complexes in the state of Iowa, and contains a high diversity of wet prairie and wetland plant species. Participants will be able to wade through potholes and observe vegetation zonation patterns firsthand. Purple blazing stars (*Liatris pycnostachya*) are abundant and should be at their colorful best by this time. Lloyd Crim, who has led field trips here for many years, will show us the prairie. Be prepared to get wet to experience the prairie potholes, and BRING INSECT REPELLENT. The field trip is offered jointly with the Central Iowa Prairie Network. Coffee and rolls provided; bring a sack lunch.

Directions to McFarland Park: Take I-35 north out of Ames and exit on County E-29. Go west 1 mile until you reach a stop sign, then turn right (north) and proceed one mile to a T-intersection. At the T-intersection, turn right (east) and go approximately 1/4 mile to McFarland Park.

Directions to Doolittle State Preserve: From I-35 south of Story City; take the County E-18 (Roland) exit just south of town. Take E-18 west for about .5 mile, then turn south (left) on gravel for 1.25 miles until you see a brown sign on the right (west) marking the driveway leading back into the fields to the parking area.

Saturday, September 7 (Note change of date). Excelsior Fen, Freda Haffner Kettlehole and other natural areas of the "Great Lakes" region, Dickinson County. Iowa native Scott Zager of the Minnesota Department of Natural Resources will lead participants into the fen, one of Iowa's rarest wetland communities. Scott is an enthusiastic botanist who earned his M.S. at the University of Northern Iowa and has spent hundreds of hours exploring Iowa's natural areas. Possible fen specialties to be seen are lesser fringed gentian (*Gentianopsis procera*), Riddell's goldenrod (*Solidago riddellii*), two species of arrow grass (*Triglochin* spp.), and grass of Parnassus (*Parnassia glauca*). Ed Freese will lead us through Freda Haffner Kettlehole, with able assistance from Nancy Slife. This landform feature, known as a "kettle", developed from the melting of a large block of glacial ice which lodged there during the waning stages of the last glacial period. Ed is coauthor of the published Flora of Freda Haffner Kettlehole (Proc. Iowa Acad. Sci. 99:23-33, 1991), and he promises to show us many of the nearly 350 vascular plants found here. Participants will have the opportunity to stay at Lakeside Lab on both Friday and Saturday nights (for a small fee) as well as use kitchen facilities. More details later.

Saturday, October 12. White Pine Honow State Preserve, Dubuque County. Enjoy an autumn hike through one of Iowa's most beautiful woodlands, and see Iowa's largest stand of native white pine. The terrain here is varied, with numerous rock outcrops, deep ravines and steep bluffs. Although oak-maple woodland is the dominant vegetation type, cool north-facing talus slopes provide habitat for a variety of rare and unusual plants such as moschatel (*Adoxa moschatellina*), golden saxifrage (*Chrysosplenium iowense*), and northern monkshood (*Aconitum noveboracense*), as well as several moss species much more typical of northern habitats. John Pleasants, a plant ecologist at Iowa State University who has just completed a major study of White Pine Hollow for the Iowa State Preserves Board, will be our tour guide during this excursion. Details later.

In a nutshell...

1996 Activities of Interest to Plant Enthusiasts

INPS =Iowa Native Plant Society; contact Deb Lewis, (515) 294-9499 for more information

IPN =Iowa Prairie Network; contact person indicated for each activity for more information

TNC =The Nature Conservancy; call (515) 244-5044 for more information if no contact person is listed

DNR =Iowa Department of Natural Resources; contact John Pearson, (515) 281-3891 for more information

May 25, 9 a.m., Tour of Borloug Savanna and Gertrude Natvig's Slough, IPN, contact: Carole Kern, (319) 273-2813.

May 25, 1 p.m., Crossman Prairie with photographer Frank Oberle, TNC. (Howard Co.)

May 28, 6 p.m., Nicklas Prairie, IPN, meet at the Eldora Welcome Center, call: (515) 486-2485. (Hardin Co.)

May 31-June 2, Loess Hills Prairie Seminar and Sylvan Runkel State Preserve dedication, Loess Hills Wildlife Area, Onawa, contact: Larry Benne, Western Hills Area Education, (712) 274-6083. (Monona Co.)

June 1, 1 p.m., Georgetown Cemetery, 8 mi. west of Albia, IPN, contact: Martha Skillman, (515) 842-3626 or Sue Irving, (515) 828-7839. (Monroe Co.)

June 3, 6:30 p.m., Dick Lawler Prairie, IPN, meet at the Eldora Welcome Center, call: (515) 858-3878. (Hardin Co.)

June 8, 9:30 a.m., Prairie Field Day: IPN and Wapsi River Environmental Education Center. Meet at the Center at 8:45 to carpool to Rochester Cemetery. Bring a sack lunch. Afternoon program at the Center: plant identification, management, and a planting demonstration. Call: (319) 843-2855. (Scott, Cedar Cos.)

June 9, Open House at Walker's Green Space, 2699 53rd St., Vinton, IA. Contact: Meg and Bruce Walker, 1-800- 837-3873. (Benton Co.)

June 11, 6:30 p.m., Ames High Prairie, led by Dick Williams, TNC. (Story Co.)

June 13, 7 p.m., Kalsow Prairie Walk, Contact: Bradley Block, (712) 335-4395. (Pocahontas Co.)

June 15, Carol and Jake Yates Prairie Reconstruction, Cedar Falls, IPN, contact: Leila George, (319) 266-0388. (Black Hawk Co.)

June 15, 10 a.m., Rockford Fossil Park Prairie, Floyd Co. Conservation Board, Free picnic to all who make reservations, call: (515) 424-5254. (Floyd Co.)

June 18, 6:30 p.m., Buckner Cemetery, IPN, meet at the Eldora Welcome Center, (515) 486-2485. (Hardin Co.)

June 22, 10 a.m., Greiner Family Preserve and Wildcat Den State Park, INPS, meet at Saulsbury Recreation Area. (Muscatine Co.)

June 22, 7:30 a.m., Birds of Cedar Hills Sand Prairie led by Francis Moore, TNC. (Black Hawk Co.)

June 23, 2 p.m., Prairie Railroad Right-of-Way thistle removal, meet along shoulder of Hwy. 24 east of New Hampton, contact: Joy Williams, (515) 233-3293 (after 6 p.m.). (Chickasaw Co.)

June 29, 10 a.m., Sioux City Prairie and Broken Kettle Grasslands, TNC. (Woodbury Co.)

July 1, 6:30 p.m., Dick Lawler Prairie, IPN, meet at the Eldora Welcome Center, call: (515) 858-3878. (Hardin Co.)

July 6, 10 a.m., Lake Rathbun, meet at Bridgeview Corps Boat Ramp area, IPN, contact: Gene Kromray, (515) 683-1471. (Appanoose Co.)

July 7, 2 p.m., Hoffman Prairie, between Clear Lake and Ventura on Hwy. 18, led by Joel Hanes and Jerry Selby, IPN and TNC. (Cerro Gordo Co.)

July 9, 6:30 p.m., Ames High Prairie, led by Deb Lewis, TNC. (Story Co.)

July 11, 7 p.m., Kalsow Prairie Walk, contact: Bradley Block, (712) 335-4395. (pocahontas Co.)

July 14, Open House at Walker's Green Space, 2699 53rd St., Vinton, contact: Meg and Bruce Walker, 1-800-837-3873. (Benton Co.)

July 16, 6:30 p.m., Buckner Cemetery, meet at the Eldora Welcome Center, IPN, (515) 486-2485. (Hardin Co.)

July 20, 10 a.m., Waubonsie State Park, led by Dr. Lois Tiffany and Dr. George Knaphus, INPS and DNR. (Fremont Co.)

July 20, 10 a.m., Union Slough, contact: Dave Hansen, (515) 357-3665. (Kossuth Co.)

July 27, 10 a.m., Hubbard Prairie, meet at the Eldora Welcome Center, IPN, call: (515) 858-3878. (Hardin Co.)

July 27, 9 a.m., Dunkerton Railroad Right-of-Way work day, meet at RR on west side of town; bring pruners, handsaws, axes and gloves. Contact: Carole Kern, (319) 273-3813. (Black Hawk Co.)

July 27, 1 p.m., Cedar Hills Sand Prairie, led by Nancy Slife and Ed Freese, TNC. (Black Hawk Co.)

August 5, 6:30 p.m., Dick Lawler Prairie, meet at the Eldora Welcome Center, IPN, call: (515) 486-2485. (Hardin Co.)

August 9, 11, Tall Grass Prairie Heritage Workshop, Pocahontas Co. Conservation Board, contact: Bradley Block, (712) 335-4395. (Pocahontas Co.)

August 10, 9 a.m., Gifford Prairie, meet at the Eldora Welcome Center, IPN, call (515) 858-3461. (Hardin Co.)

August 10, 10 a.m., Stephens State Forest, meet at the White Breast Unit campground, IPN, contact: Ed White, (515) 774-5189. (Lucas Co.)

August 13, 8:30 p.m., Ames High Prairie, Night Sounds of the Prairie led by Ken Shaw, Pat Galliard, and Rod Dalager, TNC. (Story Co.)

August 17, 9:30 a.m., Lee Zimmer Prairie Pasture, meet at the Floyd City Park on Hwy. 218 in Floyd, contact: Lee Zimmer, (515) 398-2277. (Floyd Co.)

August 17, 10 a.m., Freda Haffner Kettlehole and Silver Lake Fen, TNC. (Dickinson Co.)

August 17, 18, Wiegert Prairie Farmstead Festival, near Palmer, contact: Bradley Block, (712) 335-4395.

August 20, 6:30 p.m., Buckner Cemetery, meet at Eldora Welcome Center, IPN, call: (515) 858-3878. (Hardin Co.)

August 24, 9 a.m., INPS Annual Meeting, McFarland Park, Ames, afternoon tour of Doolittle Prairie State Preserve, led by Lloyd Crim, INPS and IPN. (Story Co.)

August 24, 10 a.m., Sioux City Prairie Wildflowers led by Dianne Blankenship, TNC. (Woodbury Co.)

September 7, 10 a.m., Excelsior Fen and Freda Haffner Kettlehole, led by Scott Zager, Ed Freese, and Nancy Slife, INPS (note date change) (Dickinson Co.)

September 7, 1 p.m., Ferguson's Pasture, meet at West Hawthorne Lake Boat Ramp, contact: Glenda Buenger and Patrick McAdams, (515) 632-8308. (Mahaska Co.)

September 7, 1 p.m., Cedar Hills Sand Prairie, led by Dr. Larry Eilers, TNC. (Black Hawk Co.)

September 8, 2 p.m., Kaufmann Avenue Goat Prairie, Dubuque, TNC. (Dubuque Co.)

September 10, 6:30 p.m., Ames High Prairie, Prairie Fungi led by Dr. Lois Tiffany, TNC. (Story Co.)

September 12, 7 p.m., Kalsow Prairie Walk, IPN, contact: Bradley Block, (712) 335-4395. (Pocahontas Co.)

September 14, 10 a.m., Sioux City Prairie and Broken Kettle Grasslands, led by Brian Hazlett, Jerry Selby, and Deb Quade, TNC. (Woodbury Co.)

September 20-22, IPN Annual Meeting, Camp Tanglefoot Girl Scout Camp, contact: Joel Hanes: 9515) 424-5254.

September 28, 8:30 a.m., Prairie Harvest Days at Dick Lawler's Prairie, meet at the Eldora Welcome Center, IPN, call: (515) 858-3461. (Hardin Co.)

October 11, 8:30 a.m., Prairie Harvest Days at Hubbard Prairie, meet at the Eldora Welcome Center, IPN, call: (515) 858-3461. (Hardin Co.)

October 12, 10 a.m., White Pine Hollow State Preserve, led by Dr. John Pleasants, INPS. (Dubuque Co.)

October 19, TNC Iowa Chapter Annual Meeting, Iowa City, TNC. (Johnson Co.)

Deer Park Continued from page 3

preserves -- I am filled with a sense of wonder. We have observed an abundance of native species and their combinations in habitats not seen every day. Especially when confronted with the sobering and often repeated statistic that over 99% of our natural Iowa landscape has been altered, time spent in

places like these is very uplifting. We feel reconnected, glad that these areas will always be preserved, hopeful that either they will be enough, or that similar areas could be reverted to a more natural state in order to increase their stability. Certain that the organisms in these natural habitats have intrinsic value beyond economics, we can, at the very least, help to inspire others to fully appreciate them.

Miscellany

by Deb Lewis

Mailing label: If you have paid your 1996 dues, or if you contributed to INPS in 1995, check the mailing label. Dues received by May 1st are indicated by a '96, contributions received before the "call for dues" (which started with the organizational meeting last October) are shown by a '95. If this information or if the address on your mailing label is incorrect, please send corrections to me or Mary Brown, Treasurer.

Logo: Be thinking of ideas for an official "logo" that can be used on our Newsletter and informational materials, T-shirts(?), etc. In the next Newsletter we'll provide details of a

"logo" contest, and selection will likely be made at the annual meeting in August.

Kudos: Thanks to our field trip leaders Tom Lammers and Shirley Shirley, and field trip hosts Bill Thomas and Rosanne Healy for this year's first two outings. Thank you also to the writers of the invited articles in this edition. Special thanks to Linda Gucciardo for the "editorial assistance" in the preparation of the Newsletter! (We'll hopefully soon settle on a format that is easiest to use and cheapest to mail.) The officers and committees are working on some exciting projects to promote INPS and provide new opportunities for sharing and learning. I hope you will agree that INPS and this year's activities are off to a wonderful start!

Musings On Orchids and Preservation of Plants

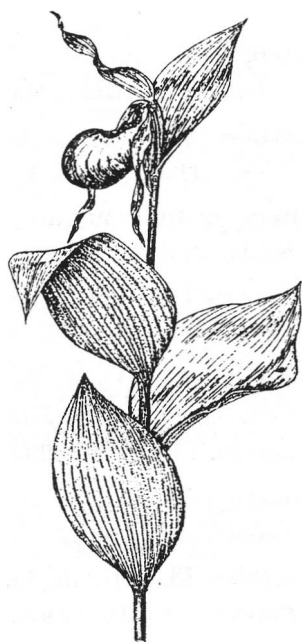
submitted by Philip Dykema

The first really exotic plant I encountered was about 5 years ago at the Pohl Conservatory at Iowa State University. It was an orchid, a *Phalaenopsis* hybrid - pure white, slight streaks of yellow in the lip, and huge. About one year later, I learned that anyone could own an orchid, and so I began to own orchids. And own more orchids. As my collection and understanding of orchids grew, I encountered a conservation problem: is it ethical to acquire orchids collected from their native habitats and to do business with people who collect orchid species from their natural habitats.

One of my friends solves the problem by owning only orchid hybrids, ensuring that the plant had to be propagated in a greenhouse situation since very few naturally occurring orchids are hybrids. Another friend encourages the culture of orchid species and does not hesitate acquiring orchids collected from the wild; after all, the forests/jungles are being rapidly destroyed and these species will soon disappear if no one saves them.

The dilemma forced me to build a campfire and sit by it, to watch the flames, and muse over this thorny problem. Plant genera, indeed most every family of organism, are presently challenged with an increasingly limited habitat. Native species are the only source of raw material to begin a program aimed at continuing these life forms. But is the uprooting and moving of these creatures the correct means by which they can be preserved? Indeed, do we even understand the conditions in which the organism thrives and multiplies? And is the collection of said organisms only exacerbating the problem of limited habitat? Well, to be sure if one is too cautious, too contemplative, and uses too much wood while sitting by the fire, the problem will solve itself. The desired preservation will arrive too late to save the creatures.

I would like to share with you instead, what some people are doing. Carson Whitlow and others are collecting seed pods from native North American orchids and micropropagating them. This is to say that they are learning how to germinate these seeds in a totally artificial system, bringing the seedlings into a more normal culture system, and then growing them as garden plants as well as pollinating them to maintain species, to increase genetic vigor of the species, and to develop hybrids



from *Flora of Missouri*,
Steyermark, 1963

to see if man can generate what insects have not. His system demonstrates a couple of key features: he is learning what conditions are needed to maintain the species, and he is using the species to increase domestically propagated forms. In an article entitled "Approaches to Reducing Collecting Pressure On Terrestrial Orchid Species" Carson states: 'the most straightforward approach to reducing collecting pressure is to produce an abundance of plants from seed of normal, representative populations to supplement existing populations, reestablish extirpated populations and meet commercial needs.

Some have criticized similar endeavors by asserting that the individuals have a conflict of interests: they wish to conserve the plants and also make money from their efforts as well as form a monopoly by making it difficult to collect native plants. Such allegations serve only to confuse those wrestling with the ethics by muddying the political issues, blocking decent efforts at conservation, and are, in my opinion, sour grapes. I feel it is important instead to see that with effort, we can learn to cultivate native species. Indeed, the effort may be great; Carson Whitlow has taken twenty years to learn the correct conditions to grow the cypripedium (Lady Slippers). But the compensation is the plethora of beautiful plants available to everyone. I dislike the term 'natural resource' because it implies that the conservation of species is solely for an economic importance and therefore, those which are not profitable are unnecessary and, therefore, weeds (in the case of plants - pests, as for animals). I do not mean to say that an economic facet is not to be intertwined in the issues. Commerce is inevitably linked to all that we do. It is part of our nature that as we become more familiar with what is around us, we begin to collect, trade, and sell these things. Conservation and commercial needs are not incompatible, but as Mr. Whitlow comments in his article: "increased commercial exploitation of our native orchids (plants), is a two-edged sword. On the one hand, commercialization would bring increased awareness and demand, which must be met quickly with sufficient artificially produced plant material in order that increased wild-plant harvesting will not occur. On the other hand, greater awareness and appropriate public education could bring about increased concern and protection for wild populations, in addition to enhancing pride in them."

An orchid society in Canada has taken steps recently to assure that a population of cypripediums would not be destroyed. A highway was scheduled to pass through a wet prairie area which contained a sizable population. These enterprising individuals, with permission of the authorities, sallied forth with trowel and shovel, and moved a good number to a member's yard. This member knows how to culture the cypripedium, and so the plants are now in good hands. I met a couple at Ledges State Park here in Iowa who own property in northeast Iowa; they related an incident in which a logging company desired passage to a nearby glen and told them the company was about to put a road through their valley. The owners

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INPS May 1996

Violets, Larkspur, and Pasque Flower

by Tom Rosburg

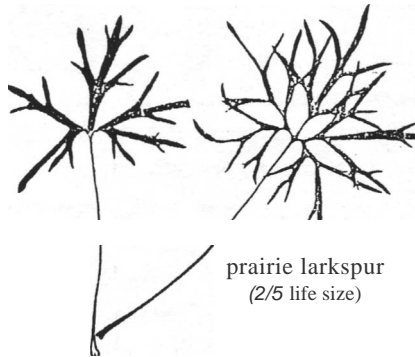
reprinted with permission from: *Central Iowa Prairie Network Newsletter, Vol. 5 #2*

The leaves of prairie violet, bird's foot violet, pasque flower, and the basal leaves of prairie larkspur are all similar - highly dissected into narrow lobes. Of course when these plants are in flower, there is little trouble identifying them. Pasque flower makes a large white flower, often tinged with lavender, just above the leaves; prairie larkspur makes a flowering stalk several feet tall with white flowers along it. Prairie violet and bird's foot violet are similar, but the yellow stamens of bird's foot violet protrude from the flower, while those of prairie violet do not.

Without the flowers it's a different story. The leaves can be so similar that identity can be anybody's guess. Here are some tips to help separate these look-alikes. Many of these depend on relative comparisons and require a hand lens to see.

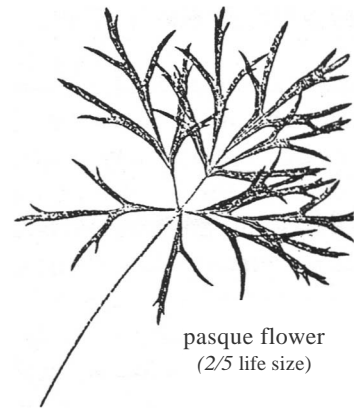
Prairie larkspur:

- Tips of most lobes have a short (0.5 mm) peg-like point
- Lobes usually narrow, with a high dissection ratio (leaf outline areal leaf area) and branching
- Hairiness on lobes is often absent, but if present the hairs are more slender, often bent over, and scattered over the leaf



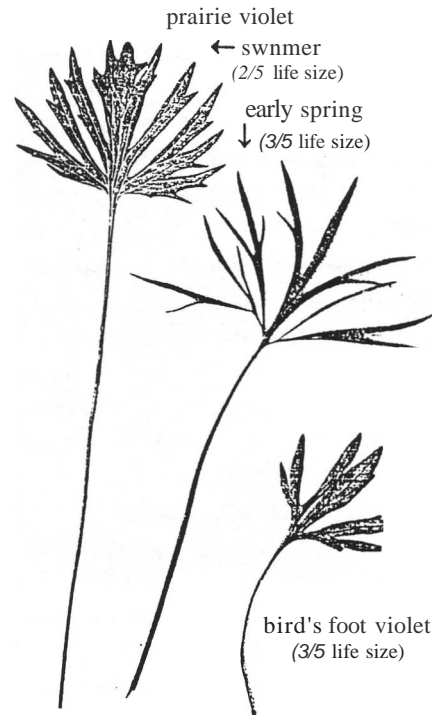
Pasque flower:

- Leaf veins are more numerous and distinct than in violets and larkspur, often 4-5 are conspicuous in the base of each lobe
- Lobes usually narrow, with high dissection ratios and branching
- Tips of lobes do not usually have a short peg-like point, more often short tufts of hair are present
- Hairiness on lobes is common, hairs slender and long (>2 mm)



Prairie and bird's foot violet:

- Tips of lobes do not have a short, peg-like point
- Lobes of summer leaves are relatively wide with dissection ratios closer to], and less branching
- Presence of hairiness on the lobes varies, usually present with hairs that are short, stout and confined to leaf edges and veins



Membership Form and Survey: Your input and support of INPS are important.

Please complete and send with your 1996 dues of \$10 to Mary Brown, 330 Windsor Dr., Iowa City, IA 52245.

Name: _____

Address: _____

Phone#: (____) ____ - _____ E-mail address: _____

Additional information or special interests for member directory entry: _____

Program ideas?: (Skills or knowledge to share with other INPS members, field trips you are willing to lead or would like offered, workshop or discussion topics) _____

INPS member form and survey May 96

Mark this box if your DO NOT wish this information published.

Orchids Continued from page 8

became concerned because it would destroy a group of *Cypripedium*. The owners moved the plants to a similar portion of their property away from danger. The plants did not survive. Not all plants survive the trauma of uprooting, moving, and replanting. This alone should be a big red flag for anyone who wishes to collect from the forests simply because plants are "cute" or "would look nice by my house." Again, a knowledge of culture conditions will aid in assisting the plants to survive. I maintain, however, that collecting seed and attempting to get it to germinate in a garden is far less traumatic on both the collector and the collected. Transplantation is sometimes the only reasonable and timely response to the threat. In these cases, a group effort is desirable since shared expertise will most likely bring about better results.

A group in eastern Iowa is actively preserving a population of *Cypripedium calceolus*, Yellow Lady Slipper, at the Loud Thunder Forest Preserve. They noticed that the local deer were feeding on the plants and decimating the population. So, they have caged the plants and pollinated them to begin seeding the area and thus restore the population. Moreover, a gentleman in Kentucky donated more *C. calceolus* to help boost the population numbers and to increase genetic diversity. This may bring up valid concerns among ecologists. The preservation of the gene pool is indeed a consideration which deserves attention; however, a general agreement on what constitutes a viable, preservable gene pool and what constitutes a gene pool in need of aid should be outlined so as to avoid confusion and unnecessary delays. The area at Loud Thunder Forest Preserve is at last report supporting a healthy, actively reproducing colony of Lady Slipper orchids. I find it interesting that they do not report poaching of the plants which I have heard of in other state forests and preserves.

Finally, if the preceding has inspired you, I would like to tell you about the actions of one individual that went awry.

The April 27, 1996 issue of The Des Moines Register reported of a northeast Iowa man who has been fined \$1000 for collecting seed pods on a local wildlife refuge to sell to a local seed company. The local seed company, in cooperation with the authorities, must now advertise that they sell seeds collected only on private property. Our actions do have consequences. The Department of Natural Resources in conjunction with the Legislature has set up rules that ensure the preservation of our local flora (and fauna). We should not disregard those rules and go collecting where we please in the name sake of conservation. Many plants are annuals; removing seed from an area will ensure that the population will be reduced if not eliminated. Indeed, most of our outings will be in the forests, preserves, and wildlife refuges. It will bring shame to our cause if we are fined for endangering the local plant populations. OK, so you have found a good population of plants, and know that you can collect seed without hindering the denizens; please remember to get permission from the landowner prior to removing those seeds. It will also shame our cause if we become known as intruders.

In closing, I consider knowledge to be the heart, the core, of good conservation. It is not simply a set of high and lofty ideals. It is the active working of individuals concerned about their environment. Conservation requires that we know the plants and the areas they live and reproduce in, what stresses they can survive and which ones they succumb to, and we need to be aware in what form the plant is best suited for moving if relocation is required. This knowledge also requires that we know the law, the law enforcers, and the owners of the areas where we find the plants. And we need to share this knowledge and pool our efforts as a group.

[Ed. note: if reading this or any other article in the newsletter inspires comments, send them to Deb Lewis. Please indicate if you are willing to have your comments included in the next Newsletter.]

Iowa Native Plant Society
c/o Deb Lewis
Botany Department
Iowa State University
Ames, IA 50011-1020