

Iowa Native Plant Society

Newsletter

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Iowa Nature Mapping *submitted by Jason O'Brien*

NatureMapping is a new program in Iowa designed to give participants the "basics" of how to collect information on common wildlife species. "There are not enough professionals, time, or funding to conduct an inventory of all the nation's flora and fauna," says Dr. Jim Pease, Extension Wildlife Specialist at Iowa State University. "Long-term projects are scarce. One way to achieve the needed inventory is to involve an interested public in helping us." Pease and Extension Wildlife Assistant Jason O'Brien direct the NatureMapping Program in Iowa.

The NatureMapping Program is a hands-on environmental education program that is growing and evolving. Iowa is the third state in the nation to implement the program. "Involving the public in 'finding the pieces of the puzzle' is what NatureMapping is all about," Pease claims. "For the first year of the program in Iowa, we are concentrating on terrestrial vertebrate species of wildlife. In future years, we expect to add an aquatic module that includes mussels and other invertebrates, a terrestrial invertebrate module, and, eventually, a plant module." He added that the goal is "to keep Iowa's common wildlife common."

Workshops are held around the state. Anyone interested in starting a NatureMapping project should plan to attend one of these workshops. The workshops will be held on the following dates: September 18 in Des Moines County, at the Starr's Cave Nature Center; and October 9 in Woodbury County, at the Dorothy Pecaut Nature Center. All workshops

will begin at 9:00 am and end by 4:00 pm. Workshop expenses are paid for through a grant from the Resource Enhancement And Protection-Conservation Education Program (REAP-CEP). There is no participant fee for these workshops. Lunch will be provided for those who pay \$5 at the door. For registration information, contact Pease at 515/294-7429 or jlpease@iastate.edu or O'Brien at 515/294-7222 or natty@iastate.edu.

"All types of people and groups can become involved. Individuals, schools, and other community groups can all participate," O'Brien says. "Individuals can provide much needed data by recording wildlife observations around their home, when hiking, watching their feeders, or other wildlife-related activities." School participation can vary depending on the size and scope of the projects chosen. "It can fulfill a valuable service to their community as well as engaging students in a related project of data collection and analysis", he added. Communities may wish to preserve or restore sites: species diversity report card is the beginning framework on which to construct long term plans. "Mapping species diversity is an important early step towards progressive community planning," he contends.

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INPS - Annual Meeting

The annual meeting of the Iowa Native Plant Society will take place on the weekend of the 10th and 11th of September. The venue is the Iowa Lakeside Laboratory, located on the shore of West Lake Okoboji (see maps). On Sunday the 12th, as part of the annual meeting a field-trip will visit the Fen Valley Wildlife Management Area.

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Leaves from the President's Notebook...



The annual meeting of the Iowa Native Plant Society will be held at the Iowa Lakeside Laboratory on the west shore of Little Miller's Bay, Lake West Okoboji. The lab is celebrating its 90th birthday this year, having been founded in 1909. The geologic history of the region makes the area quite interesting for nature lovers. Within a short drive you can explore tallgrass prairie, marshes, kettleholes, lakes, fens, rivers, eskers, and sloughs. Don't forget to bring your field-guides, boots and binoculars.

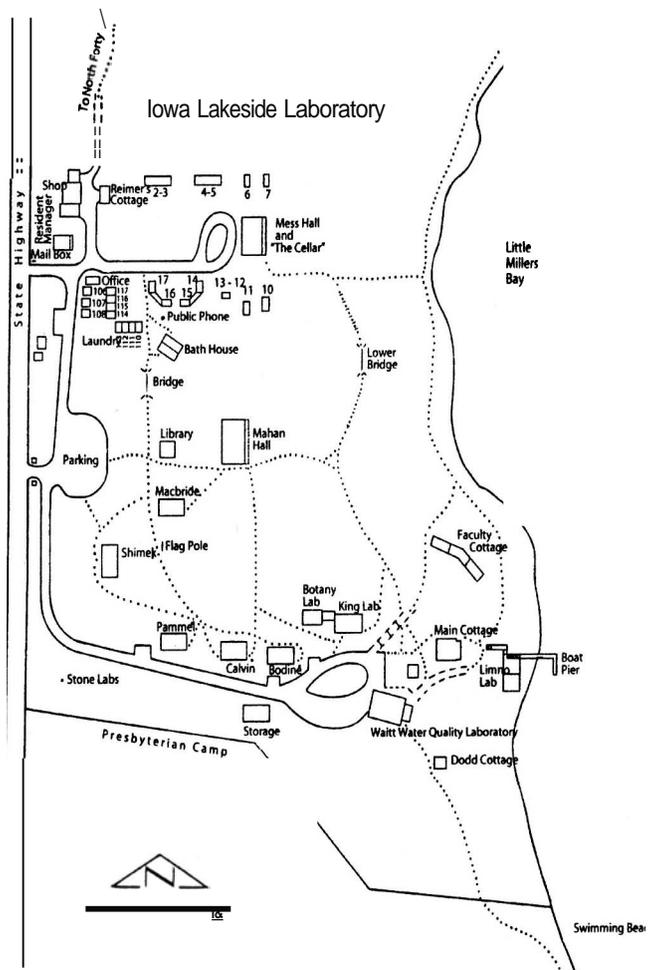
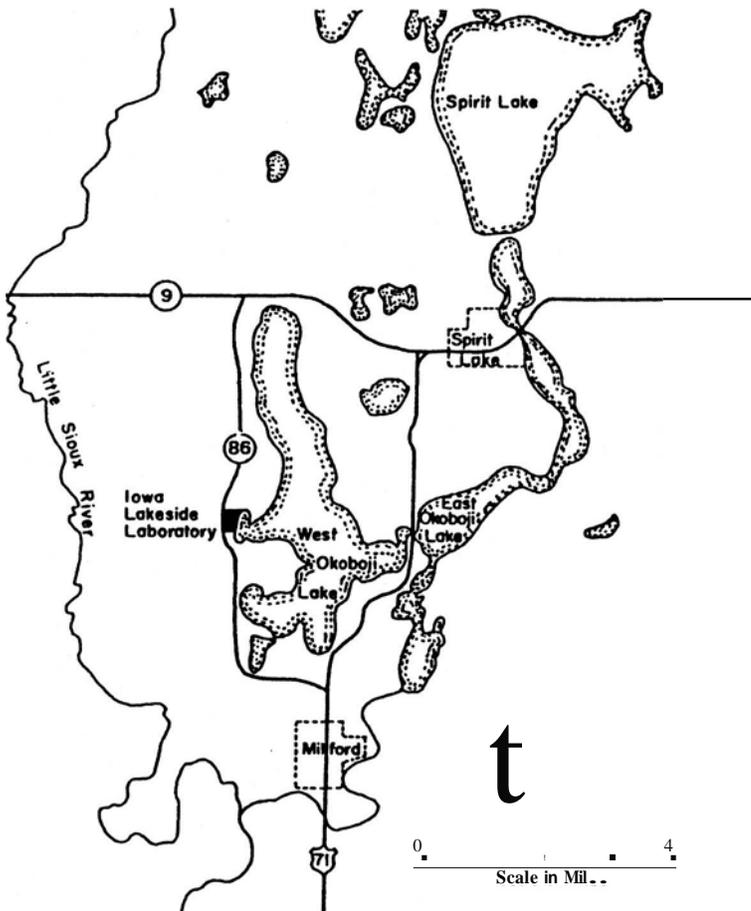
I visited the Eddyville Dunes proposed bypass area on June 26th. Glenda Buenger showed us the endangered orchid *Platanthera jlava* and a Special Concern *rush*, *Juncus effusus*. After some searching in thick vegetation, we found the rare liverwort *Aneura maxima*. Glenda discussed the most recent proposed alternatives and pointed out the original planned route across the dunes. We had an enjoyable and informative walk.

The 1999 season may be remembered by many of us Iowans as the year of many bad floods. The water damage may even be worse than in 1993. Floods do a lot of damage to our parks, preserves, and riparian habitats, but they are a natural part of our environment. Streams normally meander, eroding at a bank and adding to a sandbar at another point downstream. Oxbow lakes and marshes are also created as a stream cuts across meanders. Floods also change and rearrange a stream, creating holes and filling others. These losses and gains create habitat change for our wildlife, and benefit an area's diversity. That is in a natural environment of seasons, time, change, and unaltered watersheds. I wonder to what degree human activities affect river flows and floods today.

Fen Valley Wildlife Management Area

As part of the annual meeting, the Iowa Native Plant Society will co-sponsor a field trip (with The Nature Conservancy and the Iowa Prairie Network, part of all three organizations' joint annual meeting- the TNC has sent out a newsletter on this to all INPS members) to the Fen Valley Wildlife Management Area in southeastern Clay County (northwest Iowa, southeast of Spencer). This site was purchased by TNC and the DNR. A complex of 7.5 calcareous fens occurs along the valley walls of Elk Creek within the WMA. This site is part of the second largest fen complex in Iowa. The botanical beauties that should be in bloom on this date include small fringed gentian (*Gentianopsis procera*), Kalms lobelia (*Lobelia kalmii*) and Grass of Parnassus (*Parnassia glauca*).

The field trip will begin at 10:30 a.m. from the WMA parking lot. The closest town is Gillett Grove (very small) which is west of the WMA and on Iowa highway maps. To get there from the north take County Road M54 south from U.S. Highway 18 (between Spencer and Dickens) to Gillett Grove. Continue to follow the county road south and east out of town. About a mile east of town is a sharp right turn. Go straight on the gravel road east (do not turn south) a few blocks to the Fen Valley WMA parking area (there is a DNR sign here) or park along the gravel road. If you are coming from the south, take County road M54 north from state highway 10 (between Sioux Rapids and Marathon in Buena Vista County) to the little town of Webb. Four miles north of the intersection of M54 and County Road B63 (north edge of Webb) you will come to a sharp right turn. Go north on the gravel road (do not turn west) a few blocks to the WMA parking area or park along the gravel road. Questions as to directions, etc. can be directed to Mark J. Leoschke (field trip leader) by phone (515-244-5908) or e-mail (markjl@dmreg.infi.net).



Map of the Iowa Lakeside Laboratory Campus

Iowa Lakeside Laboratory is located on Highway 86, which runs on the west side of West Lake Okoboji Lake. The silver water tower on the opposite (west) side of the road from the laboratory is the easiest way to tell that you have reached the campus. There are two entrances, but only the northern entrance that is adjacent to the resident manager's house is open.

Field Trip Report - Bluffton Fir Stand State Preserve

submitted by Bill Norris

A hardy band of fifteen people (including trip leaders) showed up on Saturday morning, May 22, for a field trip at Bluffton Fir Stand State Preserve (Winneshek County). Participants hailed from towns far and near, including Garnavillo, Cedar Rapids, Center Point, Ames, Boone and Cedar Falls. The objectives of this field trip were two-fold: 1) to see a lot of wildflowers and 2) to begin removal of red cedars encroaching on a medium-sized prairie on the west end of the preserve.

With regard to item number one, we had great success. The timing of this field trip allowed us to see waning spring ephemerals as well as newly emergent summer wildflowers. Unusual/uncommon plants seen included yellow ladyslipper (*Cypripedium calceolus*), great Indian plantain (*Cacalia muhlenbergii*), wild leek (*Allium tricoccum*), nodding onion (*Allium cernuum*), nodding trillium (*Trillium flexipes*), snow trillium (*Trillium nivale*), downy Solomon's seal (*Polygonatum pubescens*) and a rare sedge (*Carex deweyana*). A special treat was a descent onto a steep north-facing slope to visit a rare balsam fir stand.

With regard to tree removal, chainsaws were buzzing all day on the prairie remnant at Bluffton Fir Stand. Field trip co-leader Bill Watson and associates from Cedar Falls did this dirty work in the morning and early afternoon hours, carefully pulling all the brush far into the woods below the prairie. They were relieved by three other field trip participants by mid-afternoon who worked for several more hours to remove red cedar trees from the prairie. The newly widened prairie evident at days end was a welcome sight to those of us sprawled out on the prairie next to our cooling chainsaws. This restoration work will have to be continued indefinitely, however, if this prairie remnant is to persist at Bluffton.

Celebration of Earth Year 2000

submitted by Deb Lewis

Paul Johnson, Director of the Iowa Department of Natural Resources (DNR), has announced that the DNR will take the lead in promoting the year 2000 as "Earth Year" in Iowa. The objectives for EarthYear 2000 include:

- educating Iowans about their environmental responsibilities
- involving every Iowa community in environmental improvement activities
- sustaining Iowa's commitment to natural resources after the year 2000

And, to create the largest Earth Year 2000 celebration in the nation.

INPS has been invited to be a "partner in EY 2000", with a representative on the Steering Committee, as have many other organizations, educational institutions, and businesses. Around 75 of these were represented in the first meeting of the "Steering Committee", held August 26th. The DNR "framework" for the celebration was presented, and attendees were asked to share ideas both how the represented organizations could participate and additional ideas for the DNR to consider. If you are interested in participating in the general planning or in the role that the INPS may play in EarthYear 2000, please contact me by phone at 515-294-9499 or by e-mail: dlewis@iastate.edu.

Threatened, Endangered or Rare?

submitted by Cathy Mabry

Over the last year, there has been plenty of discussion regarding the list of threatened and endangered species in Iowa. But, have you ever thought how the experts decide whether a species is threatened or endangered? Most of us could probably come up with a valid working definition of a rare species. But, there's a problem: many of our definitions would not match, and if we applied them to develop an Iowa T & E list, our lists would differ, maybe considerably!

The reason, conservation biologists generally agree, is that there is no single criterion for defining a rare species, and thus for applying the concept of rarity to the real-world task of developing a threatened and endangered species list.

One solution to the problem is to develop a "typology" of rarity, a scheme that distinguishes common from rare species, and different types of rare species based on ecological or biological characteristics of the species. The hope is that the typology will allow for more than a single definition of rarity, and provide for a more subjective way to classify species as rare, or not. Deborah Rabinowitz developed one of the most frequently cited typologies, published in her paper, "Seven Forms of Rarity".¹ Although Rabinowitz claimed not to be a conservation biologist herself, she and others have successfully applied her typology to several different floras? What is Rabinowitz's Typology?

GEOGRAPHIC RANGE	Large		Small	
HABITAT SPECIFICITY	Wide	Narrow	Wide	Narrow
LOCAL POP. SIZE				
Large, dominant somewhere	Locally abundant over a large range in several habitats	Locally abundant over a large range in a specific habitat	Locally abundant in several habitats but restricted geographically	Locally abundant in a specific habitat but restricted geographically
Small, non-dominant	Constantly sparse over a large range and in several habitats	Constantly sparse in a specific habitat but over a large range	Constantly sparse and geographically restricted in several habitats	Constantly sparse and geographically restricted in a specific habitat

A typology of rare species based on three characteristics; geographic range, habitat specificity, and local population size

To construct the classification or typology, Rabinowitz distinguished three aspects of a species' status, each of which is related to rarity in some way: geographic range, habitat specificity, and local population size.

Seven of the eight cells contain species that exhibit a different form of rarity. The upper left hand cell, species with wide ranges, several habitats and locally high abundances are not rare. Species in the cell below that, she pointed out are often ignored and rarely appear on lists of threatened and endangered plants, although, she adds, these are the plants that "when one wants to show the species to a visitor, one can never locate a specimen!"

Applying Rabinowitz's Typology

The following are needed to apply the typology:

1. Dots maps indicating geographic range with species name removed (for most species, we would have to substitute descriptions from Eilers and Roosa, or superimpose their description onto a map of Iowa showing the counties).
2. Quotes from the Biological Flora to describe habitat specificity and local abundance (Flora of the Great Plains and Gleason and Cronquists Manual of Vascular Plants, Flora of Missouri for us).
3. Show participants unambiguous examples of species belonging to each of the two choices for the three traits²
4. For each species, present the three traits in separate sections without reference to species identity. Always include a category for can't tell. The anonymity helps to eliminate preconceptions about how a species "ought" to behave.
5. Assign species to one cell of the eight-cell table.

Conservative analysis: If three judges disagree or if ambiguity is the consensus, a species was removed (resulted in removal of 75 percent of the species).

Liberal analysis: Simple plurality of judges was sufficient to classify a species (resulted in removal of 10 percent of species).

Although the Rabinowitz typology seems to make intuitive sense in distinguishing among different types of rarity found in plants, and is widely cited in the conservation literature, there are several difficulties in applying directly to develop a state-wide plant T & E list. For example, her methods require the use of dot maps, while in Iowa we would have to substitute verbal descriptions of range. In addition, a major issue in the development of the Iowa list has been the treatment of species at the edge of their range, a category not included in the Rabinowitz typology. At the very least, however, it helps us think of rarity, not as a single entity, but as a situation arising from multiple causes that have different implications for preservation of rare species.

¹ Rabinowitz, Deborah. 1981. *Seven forms of Rarity*. In, Synge, Hugh (ed.). *The Biological Aspects of Rare Plant Conservation*. John Wiley & Sons, Ltd., New York

² Rabinowitz used 15 judges then analyzed the degree of correlation among their decisions. She also selected dot maps of four species that were particularly ambiguous and inserted them into the survey twice, randomly mixed. Within-judge consistency was checked by seeing how often each judge changed their mind.

Membership/Change of Address Form and Survey:

Your input and support of the Iowa Native Plant Society are important:

Please complete and send with your 1999 dues of \$10 to Mary Brown, 330 Windsor Dr., Iowa City, IA 52245.

Name. _____

Address: _____

Phone # (____) _____

email address/web site: _____

Additional information or special interests for member directory entry: _____

Mark this box if you DO NOT wish this information published in the INPS member directory. The INPS mail list is never distributed to other organizations or companies. Dues are payable on a calendar year basis, from January 1st to December 31st. Use this form for change of address.

INPS form: Nov. 1997

Field Trip Report - Gitchie Manitou

submitted by Tom Rosburg

It was a small but dedicated group that met at Gitchie Manitou on the 17th of July. Three participants plus the leader spent an enjoyable three hours exploring the fascinating plant life of Gitchie.

The first outcrop of Sioux quartzite hosted several plants that we had come to see, including *Opuntia fragilis* (brittle cactus), *Chrysopsis villosa* (golden aster), *Talinum parviflorum* (fameflower) and *Selaginella rupestris* (spikemoss). In addition, we discovered *Polygonum tenue*, *Agrostis hiemalis* (ticklegrass), *Plantago patagonica*, and *Hordeum pusillum* (little barley) on outcrop areas.

The prairie presented familiar species, a few of those in flower included *Psoralea argophylla* (silver leaf scurfpea), *Agropyron smithii* (western wheatgrass), *Amorpha canescens* (leadplant), and both *Dalea purpurea* and *D. candida* (prairie clovers).

A stroll along the woodland edge turned up *Agastache nepetoides* (giant hyssop), *Heracleum lanatum* (cow parsnip), *Clematis virginiana* (virgin's bower), and possibly a native species of buckthorn, *Rhamnus lanceolata*.

Please submit any ideas, suggestions, etc. about field trips for the year 2000 to Mark J. Leoschke via e-mail (markjl@dmreg.infi.net), mail (2212 East Rose Avenue #13, Des Moines, IA 50320-2613) or phone (515-244-5908). Thank-you for your assistance.

In a Nutshell...

related events of interest to INPS members

TNC: The Nature Conservancy

PSMC: Prairie States Mushroom Club

September 4(1 PM): Cedar Hills Sand Prairie, Black Hawk County; TNC (515) 244-5044

September 14(6:30 PM): Pohl Memorial Preserve at Ames High School Prairie, Ames, Story County, TNC (515) 244-5044

September 18 (1 PM): Broken Kettle Grasslands, Plymouth County; TNC (515) 244-5044

September 19: Palisades Kepler State Park; PSMC (515) 446-7358

October 9 (1 PM): Medora Prairie, Warren County; TNC (515)244-5044

July 16-192000: Seventeenth North American Prairie Conference, Mason City, IA. (More details will be included in future newsletters as they become available).

Iowa Native Plant Society

c/o Deb Lewis

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